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THE CANADA LUMBERMAN.

VOLUME XI. }
NUMBER 6 }

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THE CANADA LUMBERMAN

PUBLISHED MONTHLY BY

ARTHUR G. MORTIMER.

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THE CANADA LUMBERMAN is published in the interest 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 of them 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 upon which it can rely in its operations.

Special correspondents in localities of importance present accurate reports 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 effecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

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

MR. William Westly, writing from Portland, Me., to a Canadian exchange says, many of the Canadian mill men might do well this year if prices keep up, in sawing New York orders instead of South American orders, as the price is \$2 per thousand better than last year. Any one could run a random order for New York that had timber suitable for the South American trader.

THE Canadian Rubber Co. has secured the sole right for the Dominion to manufacture the celebrated Forsyth Patent Seamless Belting. This belting, which is now being introduced for the first time in this country, is intended to obviate all the criticisms and present possible defects to which the hitherto established methods are subject. Mr. J. H. Walker is the efficient manager of the Toronto Branch of the Canadian Rubber Co.

THE legislature of Newfoundland has just passed a bill authorizing grants of land from five to 150 miles in extent for a term of 99 years, the timber on which may be used for making wood pulp. There are enormous areas of stunted timber, chiefly spruce and fir, of from six to nine inches in diameter which can be used in this manufacture. A company has been formed, some of whom are English capitalists, who propose to go into this business on a large scale, at St. Johns. A large number of applications for these timber lands have been received and probably several companies will be formed.

THE United States tariff bill has passed the House with some trifling amendments. There is no change in the lumber schedule beyond the reduction of 50 cents per thousand on pine boards and half of one cent per foot on square timber. The proviso which adds the

export duty laid upon logs to manufactured lumber imported from any country levying such export duty does not take effect till March 1st, 1891. Chemical and wood pulp are given a specific duty equivalent to the present rate. The present intention of the Senate Finance Committee is to have the bill reported back to the Senate in three weeks. It is possible that some changes may be made.

SIR JOHN A. MACDONALD'S announcement in the House of Commons that the Government was ready to remove the export duty of \$2 a thousand on pine and spruce logs, whenever the United States are ready to reduce the duty on sawn lumber to \$1 a thousand, and that the Washington Government would be duly notified to that effect, does not, so far, appear to have had any salutary effect on the rabid retaliationists on the other side of the line. The announcement, however, is in line with the policy advocated by the LUMBERMAN, that if our American friends are really desirous of getting our logs free of duty, they must first remove the duty on sawn lumber, and failing to do this, we favor the levying of an export duty on logs equal to the duty imposed on sawn lumber.

THERE are seven saw mills in the Lake of the Woods, and the lumber cut this season will be unprecedentedly large. Some 40,000,000 feet of Canadian logs as well as about 25,000,000 feet of American logs will be cut at these mills. Hitherto the lumbermen had no bona fide right to cut the timber, but now the Ontario Government, having control, have given the lumbermen what they require, which amounts to a great extent for the increased activity in the business. The Ontario Government purposes, at an distant day, holding a sale of timber to meet the requirements of those now in the industry and others who may desire to purchase. It is currently reported that there will be quite a number of small limits put up to suit purchasers of limited means.

THE editor had the pleasure during the past month of visiting a number of the representative lumber firms of Buffalo and Tonawanda. His brief sojourn was made pleasant by the courtesy shown him by each member of the trade with whom he came in contact, and on his return he had fully arrived at the conclusion that although we cannot always agree on the tariff and other questions, that the Yankee lumberman understands the secret of hospitality. As years pass by and new ones come the mutual interests of the Canadian and American lumbermen are becoming more closely allied, and it is only a matter of time before the one barrier between the lumber trade of the two countries the tariff on logs and lumber will be removed, and our interests will be mutual. We have taken pains to carefully discuss the tariff question with a number of the leading lumbermen at the points visited, and we find that there is an almost universal feeling in favor of abolishing both the export and import duties. Our trip will be continued during the present month as far east as New York, and we hope to glean sufficient information in the different cities visited to fill an interesting page in a future issue of THE LUMBERMAN. In the meantime we will withhold our notes and combine them with those yet to be put on paper.

THE announcement that Smith, Wade & Co., the well known lumber merchants of Quebec, are in financial difficulties has been received with much regret by the prominent lumbermen of that province. The trouble is attributed to speculation in timber and a decline in prices in England. The liabilities are

placed at about two millions, and if no settlement can be arrived at between the firm and its creditors, the failure will have a very depressing effect on the timber trade in the Ancient Capital, as millions of dollars worth of timber in rafts purchased by the firm will be thrown on the market. This would undoubtedly occasion a great depression in prices, and might be the means of bringing about other failures in the timber trade. Some sixty vessels are expected at Quebec on charters made by the firm. The principal creditors are Bryant, Powis & Bryant, of London, \$300,000; Quebec Bank, \$175,000; Bank of Montreal, \$130,000; Merchant's Bank, \$125,000; Bank of British North America, \$75,000; Union Bank, \$25,000, and western lumbermen \$700,000. Later advices assure us that their assets are largely in excess of their liabilities and the principal creditors have agreed to give the time and extension required to realize on the large stock of lumber now held by the firm. It is to be hoped that they will be enabled to carry on their extensive business without the necessity of going into liquidation.

IN a recent interview ex-Congressman Henry C. Burleigh criticised the provisions of the McKinley tariff bill, in which he claimed that the reduction of the duty on pine lumber from \$2 to \$1.50, while the duty on spruce remained at the first named price, laid an additional tax on the poor man's lumber, and also adds an extra twenty-five per cent. per thousand on dressed lumber, practically giving the Canadian planing mills a bonus of fifteen cents, since the difference in freightage between planed and unplaned lumber is forty cents. The American *Economist*, the organ of the American protective tariff league, replying to Mr. Burleigh says, "Supposing it to be true for Mr. Burleigh's particular locality that the difference in the freight on dressed and undressed lumber is fifteen cents more than the difference in duty, yet he must see that it is purely a question of distance from the Canadian border. If the difference in duty were fifty cents or seventy cents or ninety cents, the same objection could be made against the tariff by persons living further from the importing country. If twenty-five cents extra on dressed lumber is not sufficient to overcome the difference in freight, what redress did Mr. Burleigh expect through the Albany *Argus*, which is assiduously working for free lumber? Obviously, if the twenty-five cent duty pays a bonus of fifteen cents per one thousand, to the Canadian planing mills, and if, as Mr. Burleigh says, the difference in freight on dressed and on undressed lumber is forty cents per one thousand, then by precisely the same logic, free lumber, which Mr. Burleigh's friend the *Argus*, demands, would pay a forty cent bonus to the Canadian planing mills. But as a matter of fact, the new tariff bill makes no such provision as Mr. Burleigh attributes to it. Unplaned pine and spruce alike now pay a duty of two dollars per thousand, if planed or finished on one side, two dollars and fifty cents, if planed and finished on two sides three dollars, if planed on one side and tongued and grooved, three dollars, and if planed on two sides and tongued and grooved, three dollars and fifty cents. Now the only change made in the above rates is that unplaned pine is reduced from two dollars to one dollar and fifty cents per thousand. This gives the Whitehall planing mills the same protection that they now receive for all other kinds of lumber, and an additional fifty cents per thousand for dressed pine; that is, one dollar if planed on one side, a dollar and fifty cents if planed and finished on two sides, or tongued and grooved, and two dollars per thousand if planed on two sides and tongued and grooved.

If those of our subscribers who are in arrears would only be a little more prompt in sending their remittances they would confer on us a great favor. The amounts are mostly small, but they are scattered all over the Dominion, amounting to many thousands of dollars. We could use the money to good advantage in getting out a better paper, if they would only send in the amounts due us. We dislike to be "duhning" but then it has sometimes to be "dun" you know.

AFTER a close investigation of the Henderson Lumber Company, of Montreal, the firm has been declared to be insolvent. In view of the circumstances Mr. Justice Wurtle has granted the petition for a winding up order. The liabilities of the firm will not exceed \$180,000, the Ontario Bank being the principal creditor. At a meeting held May 30th, Mr. F. Riddell was appointed liquidator and Mr. W. W. Chipman for the Ontario Bank, Mr. Rowley for the Eddy Manufacturing company, of Hull, Mr. John Ostell, Mr. C. H. Walters and Selkirk Cross were appointed inspectors.

THE black birch which is rapidly coming into favor, is a close-grained and very handsome wood, and can be easily stained exactly to resemble walnut. It is just as easy to work, and is suitable for nearly if not all the purposes to which black walnut is at present applied. Birch is of much the same color as cherry, but the latter wood is now very scarce, and consequently dear. When properly stained, it is almost impossible to distinguish the difference between cherry and walnut. In the forests throughout Ontario birch grows in abundance, especially if the land is not too boggy. There is a great difference in the wood of different sections. Where the land is high and dry the wood is firm and clear, but if the land is low and wet, the wood has a tendency to be soft and of a bluish color. In all the northern regions it can be found in great abundance, and as the trees grow to a great size, little trouble is experienced in procuring it in large quantities.

WE are pleased to note that the affairs of Smith, Wade & Co., of Quebec, are in a fair way of settlement, and that the firm will be permitted to continue business. The following letter has been published by Mr. Powis, one of the principal creditors: "Inasmuch as certain statements with reference to Messrs. Smith, Wade & Co's financial position have appeared in the public press, I think it right, as representing one of the largest secured creditors and as charged with negotiating an arrangement, to say that any embarrassment of the firm arises from excessive purchases preventing the completion of their usual arrangements. A draft agreement has been prepared providing for the business being carried on as usual and affording means of realizing the stock and assets, which, at cost, exceeded the liabilities, in the usual course of business, and the distribution of the proceeds among the creditors. The leading financial institution of the country and the leading local bank have signed the agreement, and the largest private creditors have given their adhesion to it, but for the last week it has been awaiting the signature of the Union bank, which though not refused, has not been given, and with them must rest the responsibility of the stoppage of the present negotiations and the widespread distress and loss that would result to the Quebec trade and probably the needless liquidation of this old established Quebec firm."

A LARGE and representative gathering of northwestern lumber manufacturers convened at Minneapolis, Minn., last week, to discuss the situation of trade with especial reference to prices. Some fifty or sixty firms were represented at the meeting, and it was voted to advance prices on common grades ten per cent. The most important action of the meeting was to commence the work of securing for the northwest and Mississippi valley uniformity of grades, uniformity in the nomenclature of grades, and uniformity in the thickness that listed lumber shall be cut, as a means that would ultimately bring about a better condition in prices. There was a strong feeling that the situation might be improved by withdrawing the traveling men from the road for a period of thirty or sixty days, and the com-

mittee to whom was entrusted the work of attempting to secure uniform grades, was also charged with the duty of attempting to secure the signatures of three-fourths of the manufacturers in a prescribed territory to withdraw their traveling men, the action to be binding when the signatures of the requisite number is secured. It is evident from the action taken, that the lumber industry in the northwest is not in a healthy condition, and that the price of the manufactured product is out of all proportion to the cost of production and the price of stumpage.

HARDWOOD INSPECTION.

The lumber section of the Toronto Board of Trade, at a meeting held during the past month, adopted the hardwood inspection compiled by the committee appointed for that purpose. The members of the committee have devoted much time and thought to the preparation of this inspection, and it is to be hoped that it will be generally accepted by the trade throughout the country as a basis for determining the value of the various grades of hardwood lumber placed on the market. The pine inspection, which has been compiled by the same committee, has also been submitted for approval, but will not be taken up by the lumber section until June 2nd. The following is the report as adopted, touching upon hardwoods only:

It is impossible to make rules that will govern every piece of lumber, there being no two pieces of lumber exactly alike; it is therefore expected that the Inspector shall be a person of experience, and use his best judgment—based upon the general rules given; making no allowance for the purpose of raising or lowering the grades of a piece.

The Inspector must not favor either the buyer or seller, but take lumber as he finds it, and pass upon each piece the grade to which it belongs. Inspectors should examine all lumber on the poorest side, except flooring. All lumber must be measured in even lengths, excepting stock that is cut to order, for special purposes, when it shall be measured for the full contents. Bark or wane pieces shall be measured inside the bark or wane. All tapering pieces will be measured one-third the length of the piece from the small end.

All badly cut lumber shall be classed as Cull, or placed one grade below what it would be if properly manufactured. All lumber shall be sawed thick enough to meet the required thickness when seasoned. Lumber sawed for newels, columns, balusters, axles, or other specific purposes, must be inspected with a view of the intended use of the piece, and the adaptability for that purpose, as in most of cases it cannot be utilized for other purposes. Heart pieces are excluded from all grades above Cull. Worm holes are considered one of the most serious defects. Gum spots in Cherry is a defect, and if excessive, will lower the piece one or two grades. Warped, twisted, stained and stick-rotten lumber shall either be classed as Cull or Mill Cut and refuse.

The standard lengths of Whitewood to be 12, 14 and 16 feet, admitting 10 per cent. of 10 feet lengths; Walnut and Cherry, 10, 12, 14 and 16 feet lengths, admitting 10 per cent. of 8 feet; 8 feet to be admitted as No. 1, must be 12 inches wide and upwards; to grade as No. 2, 8 inches wide and upwards.

A standard knot must not exceed 1 and 1-2 inches diameter, and must be sound. Log Run shall be the unpicked run of the log, Mill Cull out. Lumber sold on grade, and without special contract, will be measured according to these rules. The Inspector will be required to keep a correct copy of all measurements, and give duplicate of same, to both buyer and seller if required.

In all grades mentioned as combined in No. 1 and 2. All pieces less than 8 inches shall be considered as seconds.

RULES FOR INSPECTION OF HARDWOOD LUMBER.

Black Walnut.—Combined grade of first and seconds, Rejects and Shipping Culls. No. 1, from 8 to 10 inches, shall be clear of all defects; 10 to 16 inches wide, may have 1 and 1-2 inches bright sap or 1 standard knot; 16 inches wide and upwards, may have two inches bright sap or two standard knots, showing on one side only. Seconds.—5 inches wide and upwards,

must be clear of all defects at 7 inches; at 10 inches will admit 1 and 1-2 inches sap, or 2 standard knots, 10 to 16 inches wide will admit of two inches sap, or 2 standard knots; 16 inches wide and upwards, may have 3 inches sap, or 3 standard knots; 12 inches wide and upwards, will admit of a split, if straight, 1-6 the length of the piece, provided the piece be equal to No. 1 in other respects. Not over 10 per cent. of seconds will be taken with splits of the above character.

Rejects.—5 inches wide and upwards; at 7 inches, may have 1 inch sap or 1 standard knot, 7 to 12 inches wide, may have 2 inches sap or 2 sound knots, 12 to 18 inches wide, may have 4 inches sap or 4 sound knots, above 18 inches, may have 5 inches bright, sound sap. **Shipping Cull** will include all lumber not equal to the above, that will average and work 2-3 its width and length.

Cherry and Butternut.—Will be graded and inspected according to the rules given for Black Walnut, with the exception of gum specks in Cherry.—See instructions.

Whitewood, Cottonwood or Balm of Gilead.—Will include the combined grade of first and seconds—No. 1 Common, No. 2 Common, or Shipping Cull. The combined grade of first and seconds shall not be less than 6; per cent. of No. 1. No. 1 shall be 10 inches wide and upwards and clear of all defects at 12 inches, 12 to 15 inches may have 1 and 1-2 inches bright sap or 1 standard knot—showing on one side only, 15 to 18 inches, may have 2 inches sap; 18 inches and upwards may have 3 inches sap or two standard knots, showing on one side only.

Seconds.—8 inches wide and upwards, clear of all defects at 9 inches, at 10 inches wide, may have 1 standard knot or a split not over 12 inches long, 15 to 18 inches wide may have 2 standard knots, or 3 inches bright sap, 18 to 22 inches may have 3 standard knots or 4 inches bright, sound sap.

No. 1 Common, shall be 6 inches wide and upwards, bright, sound and clear sap, not a defect in this grade, 8 to 12 inches wide, may have 3 standard knots, 12 to 16 inches wide, 4 standard knots, 16 to 24 inches, 5 standard knots, or may have straight heart cracks not showing over 1-4 the length of the piece, if it have no other defect excepting bright sap.

No. 2 Common or Shipping Cull, will include lumber with more defects than the No. 1 Common. Pieces will be counted where 2-3 of the piece will be available for use for rough manufacturing purposes, stained sap or other defects will be counted in this grade, dotted and rotten sap, and other lumber than as above named, will be classed as Mill Cull or refuse, and have no standard value.

Basswood shall be inspected the same way as Whitewood, Cottonwood or Balm of Gilead, with the exception that Seconds will take lumber 6 inches wide and up.

Ash and Oak shall be graded as first and seconds, and 6 inches and over in width. Boards or Plank 8 inches wide will admit of one standard knot or one defect; 10 inches and over wide will admit of two or more defects, according to the width of the piece; bright sap is not considered a defect.

Culls include all widths, lengths and sizes, except such stock as will not work one-half without waste. Other than the above are classed as Mill Culls, and have no value in this market.

Chestnut shall be 6 inches and over in width, and clear up to 8 inches. Pieces 9 inches wide may have 3 standard knots, over 12 inches wide 4 standard knots. This grade must be absolutely free from worm or pin holes. Culls shall constitute all lumber below the above grade that will cut one-half without waste.

Sycamore shall be inspected the same way as Oak and Ash.

Hickory shall be inspected the same as Oak and Ash.

Rock and Soft Elm shall be 6 inches and up wide, and up to 10 inches shall be perfect. Beyond that width shall take the inspection given to Oak and Ash.

Hard and Soft Maple shall be inspected for first and seconds in the same manner as Oak and Ash.

Clear Maple Flooring shall have at least one clear face and, two edges also clear. Common Maple Flooring shall be of the same general character as clear, may have one or two small sound knots of not more than 3-4 of an inch in diameter, or a small wane on one edge, which, will not injure it for working its full size without waste.

Birch shall have the same inspection as Hard and Soft Maple, with the exception that sap is considered a defect more than in Maple.

THE NEWS.

ONTARIO.

—Wm. Gibson & Co., shingle mill, Fowassen, have dissolved.

—D. B. McKee, owner of a saw mill at Meldrum Bay, has assigned.

—Vigar Bros.' saw mill at Port Arthur commenced running last week.

—The first square timber of the season reached Ottawa on May 23rd.

—Tait's mill, at Orillia, resumed work for the season on April 25th.

—Mickle & Dyment's mill, Barrie, has resumed work for the season.

—Gilmour's big mill in Trenton will not commence running until June.

—The saw and shingle mills in the vicinity of Wyvale are now in full blast.

—Beckett Bros., planing mill, sash and door factory, Smith's Falls, have assigned.

—The mill of Cameron & Kennedy, at Norman, will start running early in June.

—Mr. Clark is building a new saw, shingle and lath mill at St. Ola, North Hastings.

—All the square timber that was around the Sundridge station has been shipped.

—Josiah Kean, of Fesserton, shipped a car load of shingles for Vermont on May 12th.

—The C. Beck Mfg. Co., Penetanguishene, is rebuilding the burner at the big mill.

—The first night shifts for the season went on duty at the Chaudiere mills May 12th.

—Mr. C. Young, of Young's Point, has his large drive of logs safely boomed and ready for the saw.

—James Playfair & Co. have had two new circular saws put into their mill at Sturgeon Falls, Ont.

—Nearly all the mills in Fesserton are now running with every prospect of a good season's business.

—Senator McLaren, of Perth, has purchased one hundred thousand acres of Mineral land in Virginia.

—The Collins Bay Rafting Company expect to ship 1,000,000 cubic feet of lumber from Belleville this season.

—The first saw logs made by the Hawkesbury Lumber Company, at Maniwaki, arrived at the Gatineau boom May 8th.

—Logs are coming down very slowly from the Gatineau. The total cut in that section is about a third less than last year.

—A considerable quantity of dimension timber is being sawn in the E. B. Eddy company's large mill at the Chaudiere.

—The three mills at Byng Inlet have once more got down to work, and the cut in each is expected to be fully up to former years.

—McClyment's saw mills, at Ottawa, started up for the first time May 3rd, and expect to run the whole season without stopping.

—The mills at Washago have started again. Brady & Hartley's shingle mill started on May 12th, and Miller's a few days later.

—Returning shantymen arriving from the Serpent river report the drive as coming down slowly owing to the prevailing cold weather.

—The new band saw in Perley & Pattee's mill at the Chaudiere is now running full blast, and is turning out a large amount of timber.

—The tug *Resolute*, towed out of Midland Harbor May 12th, the large barge *Wahnapiac*, loaded with 2,000 tons of ice and 300,000 feet of lumber.

—The total amount of logs got out during the week ending April 27th for the mills at Keewatin, Norman and Rat Portage will be ninety million feet b.m.

—A number of cribs of timber reached Ottawa on May 24th and are boomed at Nepeau Point waiting a tug to tow them on to the Quebec markets.

—The saw mill at Uthoff is doing a brisk business cutting and shipping lumber. They loaded and shipped eighteen cars from the 1st to the 10th of May.

—Mr. Robt. H. McKee, formerly of the Deseronto Cedar

Mill and lately of Annapolis, is now manager of the Satsuma Lumber Company at Satsuma, Florida.

—Messrs. Bronson & Weston shipped their first barge of lumber from their new yard at Rockliffe, on May, 17th. The lumber was for Grier & Co., of Montreal.

—W. W. Carter and Murney Deans, of Deseronto, are about to start a portable saw mill to cut 1,500 logs which they have on hand about two miles from Cookston station.

—A gang of twenty-eight men employed on the drive for the Bronson concern arrived at Ottawa on May 27th. They got big wages for their services, being all picked river men.

—Davidson & Hay, of Cache Bay, have commenced running their saw mill in full force. About seventy men are employed and they expect to cut 100,000 feet per day during the season.

—The personal estate of William Triain, Toronto, formerly lumber dealer, Muskoka, in which an offer of 25 per cent. on the dollar was refused, has been wound up and will pay 9 1-5 cents.

—The Waterous Engine Works Co., of Brantford, shipped last month to Rat Portage a 40-horse power boiler for Mr. John Bulmer, and a 30-horse power boat boiler for Mr. Reid.

—Bronson's scow, towed by the *Minnie Belle*, transfers 300,000 feet daily on an average from the Chaudiere to the Rockliffe grounds, where it is landed and piled in readiness for shipping.

—Mr. D. Miller's shingle mill at Washago, which was destroyed by fire about a month ago, has been re-built and is again running. He intends running day and night in order to cut his season's stock.

—Mr. J. Kean, Fesserton, is now cutting cedar shingles. He has just put in a new carrier from the lake to the mill, which will enable him to handle shingle bolts with much greater facility.

—The Emery Lumber Co. are at present shipping, via C. P. Ry., a raft of square and waney pine which was cut last winter on one of their berths, north of Sudbury. It is a splendid lot of timber.

—Mr. J. Gallbraith, of Emsdale, has added quite a lot of new machinery to his shingle mill and built extensive carriers for the refuse slabs and saw dust across the Magnetawan. The mill will soon be in working order.

—Perley & Pattee's mill at the Chaudiere has started up for the season. A new hand saw is being placed in the mill, which will be brought into use in a few days. The mill for a time will only be run during the day time.

—There are less logs in the Gatineau this season than for 25 years past, owing to the short cuts and late season. Half of the Hawkesbury deal logs are at the Gatineau boom and the rest are expected down in the course of another month.

—The freight carried over the Canada Atlantic railway during the year ending June 30, 1889, amounted to 407,000 tons including 115,970,000 feet b.m. of lumber and 49,957 cords wood. The length of the line is only 138 miles.

—Rafts of timber are coming down the Ottawa in fine style. Recently a raft belonging to Thistle, Carswell & Co., passed Dieu Rivers, composed of one hundred and eighty-one cribs of square and waney pine of a very fine quality.

—The Deseronto *Tribune* says, many of the best men employed by Gilmour, Trenton, are leaving for the United States. The exodus from the Bay district has now assumed proportions almost equal to that from the maritime provinces.

—The first raft of the season to pass down the Ottawa river belonged to R. H. Klock & Co. and was a pretty large one. The first logs of the season floated down to the mouth of the muskrat, belonged to the Pembroke Lumber Company.

—The lumber cargoes of the Canadian barges Isaac May, Wauhaushene and Muskoka were attached by the sheriff at Toledo to satisfy a claim for \$11,000. The action was brought by Milton T. Van Lickle & Co., of Bay City. The case was settled.

—The mill of the Minnesota & Ontario Lumber Company, at Norman, started up on May 14th. The company intends cutting twelve million feet of lumber this season by running the mill for all it is worth and making time and a quarter part of the season.

—Mr. J. R. Booth's mills at the Chaudiere have started up. A new rope transmitter is being constructed to replace the old belt transmitter, which will save considerable money and time. There is a large supply of logs on hand and the season's cut is expected to be a good one.

—The largest drive of logs ever floated on Still river, Parry Sound district, is now on its way to the mills. The timber is reported as being first-class, and if the water remains as high as it is at present the drives on this, as well as on all

other streams in this locality, will go through in good shape.

—While the frame of Lawlum & Aindie's planing factory at Comber was being raised on May 16th, one of the scaffolds gave way, completely burying five men underneath the lumber and timbers. The men were badly bruised, but all will recover.

—The Gravenhurst *Banner* says: The property known as Taylor's mill property in West Gravenhurst will change hands shortly. Our townspeople in the west will be pleased to see this mill in operation, as when run to its full capacity it gives employment to a greater number of hands than any other mill in town.

—The E. B. Eddy Company will probably start their mills at Ottawa, about the 12th inst. They have some twelve million feet of logs to saw, but they are scattered all over the river. Hurduzn Bros., Hull, expect to start up about the same time.

—Messrs. DeCew and Collier, of Essex, lately purchased from the Canada Company their large block of 5,000 acres timber lying in the Townships of Colchester North and South, which is covered with elm, cottonwood, oak, ash, sycamore and maple, and are arranging with the L. E. & D. R. R. for a four mile spur to run through the centre of the block.

—The following lumber mills are located on the Lake of the Woods: At Rat Portage, Ross, Hall & Brown and the Western Lumber Co.; at Norman Hy. Bulmer's, Cameron & Kennedy and the Minnesota & Ontario Lumber Co.; at Keewatin, The Keewatin Lumber & Manufacturing Co., and Dick & Banning's. These mills give employment to nearly 1,000 men.

—The mills of the Parry Sound Lumber Co., the Midland & N. S. Lumber Co., and the Conger Lumber Co., at Parry Sound, have all commenced running with a large stock of logs on hand. The cut in each of these mills will average about the same as last year. The remaining three mills in this prosperous lumber town are getting things in shape for the season's operations and will soon be in operation also.

—The new bridge over the St. Lawrence at Coteau Landing, built by the Canada Atlantic Railway, has only been in operation for a few months. It is only used by one railway, its principal business being the transportation of lumber from Ottawa to Rouses' Point and other places in the United States, and yet the number of cars passing over it is already 250 freight cars daily, besides four passenger trains each way.

—On the Oxtongue River last week George and William Robson had a very exciting saw log ride. They went to break a jam of logs caused by a great rock in the river, expecting, that as soon as the logs started, to get on to the rock for safety until all the logs had passed down. When the logs started they went off with a rush with the two young men on the logs, and in a twinkling the rock was lost to sight. They clung to the logs down through a series of perilous rapids, but they arrived safely at the foot.

The receipts of the Ontario Crown Lands Department during the 17 years from 1873 to 1889 are given as follows:—1873, \$1,121,264; 1874, \$890,676; 1875, \$494,004; 1876, \$673,370; 1877, \$628,713; 1878, \$445,192; 1879, \$457,340; 1880, \$616,311; 1881, \$992,504; 1882, \$1,095,152; 1883, \$635,446; 1884, \$570,305; 1885, \$736,865; 1886, \$820,895; 1887, \$1,148,894; 1888, \$1,450,098; 1889, \$1,204,639. Total, \$13,915,658. The average of the receipts for those 17 years has been about \$773,000 a year.

—The *Mississippi Valley Lumberman* says the property near Rat Portage which originally belonged to Dennis Ryan and W. J. Macauley, together with a large amount of stumpage on the Minnesota side along the Big Fork and Little Fork rivers is being offered for sale. Mr. Ryan is another of the capitalists who has dabbled in lumbering without making it so profitable as to be disposed to continue the business. But if Minnesota lumbermen can pay the duty and ship lumber across the line into Manitoba, there ought to be money in operating a mill on Canadian soil, making lumber from logs admitted duty free.

—During the gale of May 17th, several rafts of logs are reported to have been lost on the lakes. The *Magnetawan* with a large raft in tow for Collingwood was struck by a gale outside of Hope Island, and after holding as long as possible the raft was driven among the islands and broke away, drifting off towards Honey Harbor. Most of them may be picked up. The *Superior* with a raft in tow for Chew Bros., Midland, also encountered the gale and her raft went adrift. At the time of writing it is also feared that the *Chamberlain* has lost its raft of logs on the way from Little Current to this port for the Beck Manufacturing Co.

PROPOSED U. S. TARIFF ON LUMBER.

The following communication, written by Mr. Wm. Little, of Montreal, and published in the *Canadian Journal of Commerce*, will be read with interest by lumbermen on both sides of the line.

Respecting the proposed changes in the United States tariff as regards lumber, you have no doubt observed that the majority of the House Committee of Ways and Means of the U. S. Congress have, in their Bill "To Reduce the Revenue, and Equalize the Duties on Imports and for other Purposes" reported a tariff to practically exclude for a time Canadian pine and spruce lumber, by imposing the rate of \$3 per M. on spruce and \$3.50 per M. on pine lumber; for although these are not the terms used, yet these will be the rates of duty established if their recommendation be adopted; but knowing that no duties imposed on imports are so universally reprobated by the American people as those on lumber, now that their forests of white pine and spruce, this side of the Rocky Mountain, have been recklessly destroyed—no less than four bills having been introduced in the last session for putting all forest products on the free list—it seemed strange that this committee should recommend increasing these duties to nearly double the existing rates. The mystery is, however, solved by the announcement made by the American lumber journals that this change in the tariff was made at the instance of Messrs. Congressmen Bliss of Saginaw, and Wheeler of West Bay City, who had succeeded in getting a provision inserted, "that sawed lumber imported from any country which imposes an export duty on logs shall pay a duty equivalent to such excess in addition to the duty provided by the proposed bill."

This was certainly patriotic in Congressmen lumbermen Bliss and Wheeler, and the American people will, no doubt, be grateful to them for trying to double up the duties on lumber, in order that they and their friends in the Saginaw district who have run out of timber (which hitherto, fearing the duty might be removed, they claimed was inexhaustible) may obtain Canadian sawlogs at a nominal rate, to keep their otherwise worthless saw mills in operation, and add still further to their enormous wealth. A very pretty little scheme as it is, and one that might be successful, but for the fact that the people of the United States have yet to be consulted, and the Canadian people may also have something to say in the matter.

That the gentlemen of this Committee have been trifled with is evident, as the lumber papers state, "the Congressmen of the Committee find it hard work to understand why this demand is made as they know little about the lumber business in a practical way," which remark is obviously correct, as they appear ignorant even of the effect of their own recommendation, for, after having proposed to nearly double the existing rates of duty, they talk of a reduction, and say: "We are satisfied any reduction of the light duties on lumber proposed would tend to discourage the proper care of our timber lands, now so generally preserved by the judicious cutting of the trees of full growth at such intervals of time as will preserve the timber reserve, etc."

The reasons here given, if not intended to be ironical, are so incongruous, when applied to the treatment of his timber land by the American lumberman as to border on the sublime. Who except the gentlemen of this Committee, ever knew of an American lumberman giving proper or any care whatever to his timber—of his not cutting every tree, from which he could realize a cent, down to six inches in diameter, and leaving the forest when he is through with it, looking like the abomination of desolation. Even to mention the word forest to the majority of American lumbermen is like flaunting a scarlet rag in the face of a mad bull, and American lumber journals never print the word but with fear and trembling, lest they might seriously offend some of their constituents.

Who ever heard of one of them contributing a dollar to the cause of the forests, out of the millions they have amassed from their destruction? Their contributions don't go in that direction, but are rather employed in deriding any attempt to create an interest in forestry, a subject of such paramount importance to the welfare of both the United States and Canada that it is trifling to mention it in connection with such a petty subject as timber duties. Unfortunately for the cause it is this insignificant duty, of no moment by itself, that estranges those who should, and no doubt otherwise would, be among its most ardent advocates. Their forestry work is not now done in the woods, but in Washington.

With the fiscal policy of the United States we, of course, have nothing to do, and if the American people choose to impose upon themselves a tariff of \$1.50 or \$3.50 or any other rate on imports of Canadian lumber, it is a matter which concerns themselves, and we will rest content, but to fancy that the Canadian government will change its policy because Messrs. Bliss and Wheeler's friends are short of sawlogs is too ridiculous for anything; and the rate will probably be raised to \$3 as originally intended, unless the U. S. lumbermen permit some material reduction to be made from existing tariff rates on lumber.

For 20 years up to 1866, the export duty on pine saw logs remained at \$1 per M. while the duty exacted on Canadian pine lumber entering the United States was \$2 per M., a policy which completely destroyed the Canadian sawmill industry on the Lake Erie shore, and which was on this account transferred to Buffalo and Tonawanda, while during the same period thousands of American citizens were employed in New Brunswick sawing American sawlogs taken from the State of Maine, then to be shipped home free of duty when sawn, all to the prejudice of the Canadian lumberman; and our government neither remonstrated nor made any change in the rate of duty; but at this time rumblings began to be heard from the west; we were to be invaded in the rear, and finally the American lumber journals announced that a rail was to be made on the Georgian Bay district of Canada, and that Gen. Alger, Col. Jeffers, Col. Bliss, in fact a small army of superior officers, were then organizing with that intent. Our government thus forewarned, and having also learned from the same reliable sources of the havoc and desolation which followed wherever these warriors appeared—of the mighty monarchs they had overthrown, of the hundreds of millions they had slaughtered, and of the vast territories they had laid waste, thought it prudent to put a couple of extra rails on its fence, which was then only one rail high, just high enough that they might know there was a fence there; but when these gentlemen heard of this, and said "that they didn't mean harm in any way, that they didn't intend any devastation to our country, but just wanted a few saw logs; that though they had plenty of logs at home, they were a little off color, and they just wanted a few of our good logs for 'sweetening,'"—and promising to be good fellows for the future, our government took one rail down, so that they don't find any difficulty in getting over it; but they are still not happy because we don't take down the fence altogether; and because some of them invested a few dollars in Canadian timber limits, worth ten times any sum paid for them, and our government won't legislate especially for their interest and that we don't all go into extacies to have these gentlemen, who have devastated their own forests, rush in and destroy ours in like manner, we hear a constant whine about the ungenerous conduct of the Canadians, and the existing conditions misrepresented and distorted. There are, however, American lumbermen of character, such as the Hon. S. O. Fisher, of West Bay City, who, holding to some old fashioned notions of honesty, and probably annoyed at hearing so much of this delusive cant, had the fairness to say: "As soon as we undertake anything of that sort (referring to towing over logs to Michigan) up will go the export duty to \$3 or \$4 a thousand feet. They (the Canadians) would not let us rob them any more than we would not let them rob us. These candid words, however, caused his banishment from the capital, as to be "as sound on the sawlog question" is rank treason in the eyes of Michigan lumbermen, and his place in the council of the nation is now filled by the Lord High Admiral, who, with our friend the mighty warrior Colonel Bliss, appear to have doffed their watpait to pursue the peaceful avocation of log-rolling in Washington, and are now, as our western friends say, "Working this log racket for all it is worth."

"But more true joy the exiled Fisher feels

Than Wheeler with a senate at his heels."

The Canadian government has always expressed its willingness to reduce or entirely remove the sawlog duty, whenever the United States lumbermen permit Congress to reduce or remove the duties from Canadian lumber, even though at the present moment—when the log and lumber duties are alike—all Saginaw lumbermen (Messrs. Bliss and Wheeler included) know that they now have an advantage of more than \$2 per M. over the Canadian manufacturer, owing to the cheaper rate at which logs can be towed as compared with freighting the product in vessels—the better condition in which the stock is delivered in market, free from splits, checks, and weather stains—and the additional value, delivered without cost, of the rough products for pickets, lath, shingles and fuel for their salt blocks, which the Canadian operator, owing to his isolated position and the cost of freight, finds in many instances a nuisance.

Without taking into consideration the very great advantage of being in a large market, where buyers go to purchase stock, and which can be supplied at any time by rail or water, instead of having to send forward their lumber at the convenience of vessel owners, and accept such prices as they can get from buyers who at the time of arrival may neither want the lumber nor have any convenient place to receive it—the writer knows from personal experience that the advantages possessed by those towing logs from Canadian points on Lake Erie to Buffalo and Tonawanda, over those manufacturing in Canada, were more than \$4 per M. and had the effect of bankrupting every Canadian manufacturer rash enough to try to compete under such exceptional conditions, a fact which enabled the Hon. Mr. Weston, four years ago, to make the painfully true remark, "On the North shore of Lake Erie the Canadian saw mills are in rums, but the mills at Tonawanda are employing thousands of American workmen manu-

facturing Canadian logs towed from the Erie north shore. The Saginaw mills are running out of stock and looking to Georgian Bay for Canadian logs to cross the Huron Lake to keep their mills and men at work."

And now that this matter has been so obtrusively forced on our attention—unless some satisfactory adjustment is arrived at, the Canadian lumberman will insist that the export duty on saw logs shall at least be fixed at such a rate higher than the import duty imposed by Americans on Canadian lumber, as to place the Canadian manufacturer on an equal footing with Americans sawing Canadian sawlogs. "Only this and nothing more." Moreover, the sentiment is rapidly growing that, considering the condition of our own forests, it would be prudent to prohibit the export of pine sawlogs altogether, a course which will assuredly be adopted should the exceptional duties proposed be enacted by the United States government.

It is probable, however, that when this matter is discussed in the House, Messrs. Congressmen Bliss and Wheeler may discover that there are other Congressmen, who are not lumbermen, who like the gentlemen of the Committee, may "find it hard work to understand why this demand is made," and though they may "know little about the lumber business in a practical way," they may know enough about it to enquire on what grounds the existing duty on lumber, which should have been abolished years ago, should now, for the sole benefit of a few Michigan lumbermen, who have speculated in Canadian timber limits, be raised to nearly double the present rates, while ninety-nine out of every hundred Americans outside of Congress consider, in the interests of the country, these duties ought at once to be removed; not reduced but absolutely, completely removed, as whatever duties are imposed on pine and spruce lumber must hereafter be paid by the consumers—the merchantable white pine and spruce timber of the United States, east of the Rocky Mountains, being about gone.

Taking as an illustration the pine of the State of Michigan, we find that the 29,000,000,000 feet, reported by the census of 1880 as standing in the lower peninsula, have dwindled to less than one-tenth that amount. The editor of the *Chicago Timberman*, after investigation, could only discover 3,000,000,000 there last year, a portion of which was cut the past winter, so that of good merchantable white pine there is not to-day a supply in the whole of the State that would satisfy the sawing capacity of the Michigan saw mills for more than six months. There is still some little to be had of gleanings from third or fourth cut burnt-over stump lands, the product from which goes entirely into the different grades of culls,—this, together with some red pine (Norway) and inferior hemlock, may keep the mills running for a short time, but, as is said above, the good, merchantable white pine timber is about gone, and the mill owners, not one in ten of whom owns a stick of good white pine standing, find that the few individuals who hold what patches of good timber are left, will not dispose of it to them at such a rate as to leave them a profit in converting it into lumber, and being forced to get stock somewhere, are becoming desperate; and while some are going south and west others appear to be retiring gracefully from the field as expeditiously as the insurance companies can conveniently pay for cremated saw mills, while others again, like our friends Bliss and Wheeler, seem inclined to raid Canada for supplies, and although we are always happy to have our American friends amongst us, and are willing that they shall enjoy every privilege possessed by ourselves, outside of voting away our property, we must draw the line there.

Assuming, as we have a right to do, that the census estimates of 1880 of standing pine timber in Minnesota, Wisconsin, and the upper peninsula of Michigan, are as accurate as the present condition of the forests in lower Michigan has proved them to be, we have from the total of 55,170,000,000 feet then standing, to deduct 37,451,342,338 feet, being the amount cut during the past 10 years, according to the admirable comparative statement annually prepared by the *Northwestern Lumberman*, which leaves only 17,708,657,662 feet remaining, and adding say 2,000,000,000 for lower Michigan, we have a total of 19,718,657,662 feet remaining on hand, as compared with 84,170,000,000, as returned by the census 10 years ago, and since the cut last year amounted to 8,305,833,277 feet, there would appear to be just a little over two years supply in the whole North West.

It is not, of course, contended that this is the exact condition, for no doubt timber has been cut in the past few years that was not included in the estimates when they were made, but to offset this there must be taken into account the amount of timber made into shingles, during the time, the same authority giving a return of 41,303,373,085 shingles, requiring probably equal to 8,000,000,000 feet of timber. So that it becomes evident that the great white pine forests of the United States have vanished.

The spruce forests of the east, which are confined chiefly to the States of New York, and Maine, New Hampshire, and Vermont, have now but "a few scattered remnants" of their once great wealth of timber,

and bear hardly a relative value to the great white pine forests of the West, the three last mentioned no estimates having been made by the census of the forests in New York) contained, according to the census of 1880, 7,365,000,000 feet of spruce timber, with an annual cut of 653,281,000 feet, which would amount in ten years to 6,532,810,000 feet, and leave but 732,190,000 feet on hand, or a little more than one year's supply. The larger portion of it lying on the head waters of the river St. John in the State of Maine, that part of Canada so generously presented by Lord Ashburton to the Maine lumbermen, together with the right of using the St. John river through Canada to get these logs to market, which would otherwise be valueless, together also with all the privileges enjoyed by Canadians for sawing them, and shipping the product to market. These Maine saw logs owned by American Citizens, amounting to about 100,000,000 feet annually, and which though sawn in Canada into lumber, the sawing being restricted to American citizens and would be "taboo" if a Canadian laborer was to saw a board, and are a continuous nuisance to the Canadian lumberman from the time they enter the country to and after they leave it, having free entry into the U. S. markets, equal to an annual bonus of \$200,000 to the Maine lumbermen—are the sawlogs so frequently referred to and mis-called free American log exports, by American lumber journals, when misstating the condition of sawlog exports between the two countries; when Canadian sawlogs, taken from adjoining territory, driven down the same river through Canada, sometimes sawn at the same Canadian sawmill, and shipped on the same Canadian vessels, have a duty imposed upon their products of \$2 per M. upon reaching the same market in the United States. So that the Canadian lumberman is handicapped in the east to the extent of \$2 per M. on his spruce lumber, and in the west \$2 per M. on his pine lumber, and still the greed of the American lumberman is not sated.

We have a right to suspect that this whole affair is a piece of political bunkum, to be used at Ottawa as a lever to get some reduction in the duties on sawlogs, without removing the duty from Canadian lumber, for it is well known that efforts are now being made in that direction, and that an offer has been made of reducing the lumber duty to \$1 per M., if the sawlog duty is removed; but such an arrangement would be disastrous, as we have no more timber than we require for our own milling industry, and should offer no inducements whatever for getting rid of it. It would be against our interests to agree to remove the sawlog duty in exchange for free lumber and logs all round, yet for the sake of getting rid of all difficulties, and to relieve our American lumber friends from the intolerable worry these duties appear to give them, it might be advisable to consent to such an arrangement; but the matter is purely one for the people of the United States to deal with, and except on their account we should feel no concern about it. If this Bill was intended to increase the Revenue, one might have some patience under the necessities of the case, but even then one has a right to enquire why the whole community on both sides of the line should be sacrificed, to further enrich a few lumbermen, who are already too powerful for their country's good, but since the ostensible object is to reduce it, the solution is quite simple. "Free logs for free lumber." "Only this and nothing more."

Our people are beginning to learn that their true interests lie in conserving their forests, and are not so desirous of sacrificing their remaining stock of timber as to force it on unwilling purchasers. Nine out of ten Canadian manufacturers would be better off if they had not cut a stick of pine for the American market in the past five years, as the enhanced value of the timber, if standing to-day, would more than compensate for any profits realized during that time; and now that the United States forests of white pine and spruce are so near their end, a fact which the census will clearly establish, unless the lumbermen prevent the investigation, we may soon expect the entire removal of duties from lumber. Consequently Canadians are not at all nervous over the outlook, and if the American people wish to impose upon themselves the excessive rates of duty proposed, it will be their own loss and not that of the Canadian lumberman.

The writer does not wish it to be inferred that he is in favor of export duties, or of a restrictive policy of any nature in our intercourse with the American people, for he has always advocated the freest trade relations between the two countries; believing, as he does, that the general conditions are so nearly alike, that any advantages possessed by one would be fully counterbalanced by other advantages gained by the other, and the general result be beneficial to both, but, until we have freer trade, let us have that which is measurably fair, not that which is all crow on one side and all pigeon on the other.

WILLIAM LITTLE.

—About 30,000,000 feet of logs were shipped from Canada the Saginaw river last season to be manufactured in American mills, but it is estimated that the figures may reach 50,000,000 feet this present season.

FOREST TREES.

TO THE EDITOR. It is not easy to procure young forest trees worth planting. The trees raised in the nurseries can generally be relied upon, and they are sold at moderate prices, but, owing to distance, want of easy communications, delays in forwarding and delivering (which are often the cause that the trees when received, are unfit for planting, and to the cost, however moderate. It is very seldom that farmers have recourse to the nurseryman for the forest trees they intend planting (I do not allude here to fruit trees.)

They generally go to the woods for them, often a distance of several miles. Those who have tried it know how hard it is to find such trees as they want, how much time and trouble it takes to dig them up, and how impossible it is, even with the greatest care, to avoid wounding and tearing off the roots. They know, too, how little satisfaction they have generally derived from all that work. Trees taken out of the forest and transplanted on the open are placed at a great disadvantage, they fail so often that people get discouraged and many give up tree planting as too difficult an undertaking.

Nothing is easier, in the proper season, with soil fit to grow the kind of tree you wish to plant, if the tree is in good order, with a little care you ought to succeed. But the trees you dig out of the woods are seldom in good order, and they cost you a high price in time, if not in money. If you wish for good trees, in great number, safe to grow, without trouble or expense, procure them from a nursery, but let that nursery be your own.

Any farmer can start in a corner of his garden a nursery of forest trees by sowing the seed of the trees he wishes to plant. With a little observation it is easy to find out when the seed is ripe; for instance, towards the end of June, beginning of July, the seed of the elm and of the soft maple (*Acer rubrum*) is ripe, by sowing it at once it will sprout and the little trees grow nearly one foot in height this summer.

The maple, oak, ash, birch, butternut, etc., ripen their seed in autumn, better sow it at once than winter it in the house. Sow in straight rows, with a garden line, leaving a picket at each end to guide you when weeding. Sow, say half an inch deep, for the maple seed and for other kinds, in proportion to the size of the seed, two or three inches deep for butternut and walnut. Thin after the first year, if needed, and transplant further on the little trees removed in thinning. After three or four years, more or less (the time will depend upon the rate of growth of each kind of tree), plant your young trees where they are destined to stay. Choose a cloudy or rainy day in the spring, and without leaving home, with no trouble, without breaking any roots, you will take up and plant at once, without allowing the roots time to dry, one hundred young trees, certain to grow, in less time than it would take you to go to the woods and dig up ten trees, with a poor chance of their taking root and living.

These young trees will cost nothing, your children will soon learn how to weed them and take care of them, especially if you set them the example. Our own children when quite young, took pleasure in sowing acorns and watching the growth of the young oaks, as they came up. By sowing you can procure, with no expense, any number of young trees and rewood, by degrees, all the land which is not fit for cultivation and ought to have been kept as woodland.

But do not forget to fence carefully your nursery and your plantations so as to keep out the cattle. No use planting trees without fences, the cattle will destroy everything.

In many cases nature will spare you the trouble of sowing where the ground is favorable, in July and August, along the ditches, the roads and fences, on the moss on barren patches, wherever there is a little dampness in the neighborhood of the elms and soft maples, you will find hundreds of young elms and maples just sprung up from the seed fallen from those trees, plant them in your nursery. Try it this summer. The seed of the elm is so minute and delicate that it is better to pick up those young seedlings than to attempt sowing the seed.

In . . . maple groves the ground is covered with a

regular carpet of young maple seedlings. You can pull them up easily by hand in the fall or early spring when the ground is still damp without breaking any of the small roots. Plant them at once in your nursery.

It is very difficult to collect pine and spruce seed. Early in the spring, when the ground is still soft and spongy, in the pastures near where those trees grow you will see a number of young pines and spruces that you can pull up very easily. Plant them at once for that kind of tree you must shelter from the sun until they are well rooted.

Whenever the ground of a garden has been dug up and worked in the fall, if there are any maple or ash growing in the neighborhood, it will be noticed that the ground in the spring is more or less covered with maple and ash seedlings, grown from the seeds fallen from those trees. It takes a very little time to pull up and replant hundreds of them, and scarcely any one of them will fail; of course, they must not be pulled up too roughly or it may damage the delicate roots; if the ground is too hard, use a trowel. As much as practicable, they ought to be pulled up when they have only got their two first leaves, which are easily known by their peculiar shape, long and narrow, from one inch and a half to two inches long and about a quarter of an inch wide.

For several years past I have been seeking the cheapest and, at the same time, most effective mode of restoring the woods, where they have been completely destroyed, many of our old settlements are completely denuded of trees, and I recommend this simple mode as the best, from my personal experience. Let those who suffer for the want of fuel, of timber for building, of trees for shelter and ornament, and those who would look to have a sugar maple grove at their door—let them start their own nurseries this very summer; it will entail no expenditure of money, take but very little time, and repay them bountifully. It will be a pleasure for me to give any further information and advice to all those who may apply for it.

H. G. JOY DE LOTBINIERE,

Leclercville, P.Q., May 1, 1890.

NEW BUNSWICK LUMBER COMMISSION.

Commenting on the proposed Timber Lands Commission to be appointed by the local government, the *Miramichi Advance* says: It will have a very important subject to deal with one in which there is a large public interest, as well as questions affecting the greatest of all our local industries. A misapprehension seems to prevail to some extent in regard to the range of the commission's work and its functions. It is not to be as some suppose, a body to present to the government an array of facts and conclusions in the interest of the lumber industry, but a court of enquiry into the whole subject of the Crown Timber Lands of the province, for the purpose of reaching conclusions which may assist the government in so amending the present system of administration of those lands as to secure the best obtainable results in the equitable interest of the people on the one hand and the lumber trade on the other. The enquiry will embrace such branches of the subject as the rates of stumpage that should be exacted; the situation of the different tracts of crown lands, relatively to streams, and their value dependent thereon and upon the other facilities available in connection with them for marketing their products; the improvement of streams as a means of increasing the value of lands for public revenue purposes; the merits or demerits of the long lease system, the best methods available for preserving the timber lands, the management of provincial fishery rights, etc.—the general result to be the adoption of as perfect and satisfactory a system as possible of administering the public domain of the province.

The commission is not to exceed three members, and it will have power to summon and examine witnesses under oath. As its functions are quasi-judicial and the interests involved in its inquiry of great consequence, in both their fiscal and trade aspects, it is important that the gentlemen selected to compose it shall be chosen especially with a view to their fitness for the discharge of their duties, having due regard for the public interest on the one hand and that of the people engaged in the lumber industry, in all its branches, on the other.

CULTIVATING BLACK WALNUT.

The growing scarcity and increasing demand for black walnut lumber has frequently been referred to in the LUMBERMAN, as also the profits which would likely accrue from its cultivation. The Portland, Ore., *Journal of Commerce* has the following remarks on the subject:

In view of the incessant demand for black walnut lumber and its growing scarcity, it is surprising that there is so little attention paid to the cultivation of the timber, especially when the labor to be expended is so small and the returns so munificent. There are very few farmers in the country who cannot spare a few acres of land to be devoted to the cultivation of this valuable wood, which is always in active demand, and there is no crop to which they can turn their attention that is so prolific, and so certain of munificent returns on the investment of labor, as that is about all that is requisite to be expended; and there are few localities in the country where the soil and climate may not be found adapted to the cultivation of this valuable timber.

It is an undisputed fact that there are hundreds of farms in the United States and Canada in which, in the land clearing process, sufficient black walnut timber has been converted into rails for fencing, and cremated in log heaps "to get rid of it," which if it had been permitted to stand, would to-day be sufficiently valuable to purchase several farms with all the improvements and stock; and scattered trees which were fortunately spared from the wreck and destruction, have been sold for from \$100 to \$300 each on the stump. With these facts before the farmers of the country, it seems almost incredible that so few of them avail themselves of so apparent an advantage. True it is a crop that requires several years of waiting for returns, but any farmer, who when starting in as agriculturist, will plant an acre of ground to black walnut, and continue to plant one acre yearly, in the ordinary course of nature will live to reap yearly returns far in excess of all the roots and cereals he can raise by laborious and toilsome application to his usual avocation as a tiller of the soil; and providing he should fail to reap the reward himself, he has made provision for his family that is as safe as government bonds, and more profitable than life insurance, as the planting of a black walnut means the harvesting of a tree in 20 years, the minimum value of which shall be \$20, and an increase in value thereafter of at least \$2 a year if permitted to stand, and a final value of from \$100 to \$300 a tree when they reach full maturity.

An experimental black walnut grove now nearing fruition in Michigan is rapidly developing, and from which the owner, in a very few years, will reap the harvest of the most profitable crop ever planted in the State, and the owner's greatest regret is that he did not enter more extensively into the business. He says if he had planted half his farm with black walnuts, the standing timber in 25 years would have been worth three times the balance, with all his stock, buildings and other improvements. The certainty of returns is the great feature of the business. Black walnut is in demand from one end of the country to the other, and its scarcity is becoming more apparent from year to year, dealers finding it more difficult to obtain. It is one of the most valuable timbers capable of production, besides being hardy and thrifty; hence the farmer who devotes a small portion of his time and opportunity to meet the unfailing demand, makes an investment for the future which will certainly meet his most sanguine expectations.

HOW TO REPAIR A CRACKED CIRCULAR SAW.

A correspondent of a London exchange says, cracks in circular saws may arise from a variety of causes such as too hard a temper, striking a nail, saw binding, improper shape of tooth for the wood, &c. Teeth with angular gullets are more liable to crack at the roots than those with rounded gullets, more especially if the gullets are not sufficiently large and deep to allow of a ready escape for the sawdust. If the crack is only a short one—say two or three inches in large saws—it may usually be stopped from extending by drilling a small hole at the extremity of the crack. To do this a drill of the hardest possible temper will be required, and for making this we have found Muskrat's

special steel suitable. The drill must be run very slowly and be well lubricated. The hole should be slightly counter-sunk on either side. For saws up to 3 ft. diameter a hole of about $\frac{1}{4}$ in. diameter will generally be suitable; for saws above 3 ft. diameter, about a $\frac{1}{2}$ hole.

If the saw is of large diameter, and the crack extends too far into the blade to permit of its being safely run with only a stop-hole drilled as above described, saw-makers drill out the plate, and fit in one or more yokes according to the length of the crack. The best method of doing this with which we are acquainted is as follows.—First of all the stop-hole is drilled at the end of the crack and carefully plugged, and afterwards the saw is bored to enable a small yoke or clip to be fitted in. This yoke is flat, and of the same thickness as the saw. Its ends are rounded, and its middle is narrower than the ends are, that the saw may be firmly held. The diameter of the ends should be about $\frac{1}{2}$ of an inch wider than the middle of the yoke, which centre is parallel and straight. The holes at either end of the yoke and the intermediate metal are drilled out and cut away. The saw-plate must now be carefully counter-sunk on both sides, and a piece of steel accurately fitted into the opening and rivetted into its place. The yoke should now be ground down until it is of exactly same gauge as the rest of the saw and perfectly smooth, so that when the saw is set to work there should not be undue friction at this point. If the saw is a very large one and the fracture extensive, two yokes will probably be required. It will not pay to repair small saws in this manner.

Thread and Needle Trees.

On the plains of New Mexico are forests of a growth known as thread and needle trees. The tree partakes of the nature of the gigantic asparagus, and has large, thick, fleshy leaves, resembling one of the cactus family, known as the "Prickly pear." The "needles" of the needle and thread tree are set along the edges of these thick leaves. In order to get equipped for sewing, it is only necessary to push the thorn or needle gently backward into its fleshy sheath, this to loosen it from the tough outside covering of the leaf, and then pull it from the socket. A hundred fine fibres adhere to the thorn-like spider webs. By twisting the needle during the drawing operation this fibre can be drawn out to an almost indefinite length. The action of the atmosphere toughens these minute threads amazingly, to such a degree as to make a thread twisted from it no larger than a common No. 40, capable of sustaining a weight of five pounds, about three times the tensile strength of common six-cord thread. The scientific name of this forest wonder is *Tenytana mucadica*.

LARGE MACHINERY SHIPMENTS.

On the 30th ult. the Waterous Engine Works Co., of Brantford, Ont., shipped to the Brunette Saw Mill Co., New Westminster, B. C., one of the largest saw mill carriages that has ever been built in the province. It consisted of six girder steel log seats, extending 76 feet from centre of first to centre of last block. Each block was formed of two 10 in. steel girders, with a heavy steel plate rivetted on top of each girder, surmounted by a very heavy knee piece, which was set forward by three inch screws made of steel. Under each log seat were two 3 in. steel axles with heavy steel V wheels on the front and flat wheels with a flange on the back. These ran on a heavy steel track. This immense carriage was built to take in logs of 7 feet diameter, 80 feet long, weighing 80 to 100 tons each. The carriage itself without any woodwork weighed over 12 tons. The setting and receding device on this carriage is a new departure. They shipped on the same car a King edger made to take in lumber 50 in. wide using six saws. This edger with its appurtenances, weighed in the vicinity of five tons. Such heavy machinery as this cutting lumber is unknown to the Ontario trade, but is the only class that will stand the immense timber of the Pacific Coast. We understand that the same firm has received an order from the Northern Pacific Lumber Co., for the engines, boilers

and burner required in their mill at Port Moody. They are also building a large boiler for the Globe Printing Co., Toronto, 16 feet long 66 in. in diameter, with but one sheet only on the bottom of the boiler, and two smaller boilers for the British American Starch Co., of Brantford. They have more recently shipped a 50 horse power saw mill with gang edger, planer and shingle machine to John Lineham, Calgary, and another similar outfit over the Northern Pacific to Kootenay, Idaho, and thence by teams to the mining district of Nelson City, B.C., and two sets of saw mill machinery with gang edger, slab saw and shingle machine to St. Johns, N. F., which will sail by the steamer "Cacouna," leaving Montreal on the 14th.

WHAT CRACKS SAWS.

A writer in the *Tradesman* gives his ideas on a subject which is a matter of interest to all who are engaged in sawing wood.

"Unequal expansion," he says, "is a cause for saws cracking, especially when the crack is at the bottom of the tooth. There is always more strain upon the periphery of the saw when running than there is at the centre, no matter how carefully it is hammered, and that strain is always parallel to its face. When a cold saw is first put in motion with the centrifugal strain that is already brought to bear upon the periphery, if by any reason that part becomes heated before the heat is communicated to the whole plate, that part becomes suddenly expanded, and with this and centrifugal force together, it must either stretch or break, and if the steel is of an inferior quality and deficient in strength the latter result will follow.

"While bad filing and not sufficient set frequently produce this effect, yet the number of teeth and the size of the gullet in proportion to the feed has much to do with it. The action of the saw tooth upon the wood is much the same as a chisel in the hands of a workman in the act of paring across the grain of a stick of timber, and the nearer the shape of the tooth approaches the shape of the chisel the cleaner and easier the cut. The sawdust should have the appearance of fine chips instead of dust, as will be the case where the teeth are so blunt that the wood is scraped off rather than cut. For instance, a saw with 40 teeth working on a $2\frac{1}{2}$ -inch feed, each tooth would only be required to cut a chip $\frac{1}{16}$ th of an inch deep, and with a chisel of the width of a saw tooth in the hands of a workman would be considered a light chip, and if the gullets are sufficiently large to contain that amount of sawdust which accumulates while passing through the log without packing so tight as to cause friction upon the sides, then the saw will run without heating. But, on the contrary, if there is not sufficient room to carry the sawdust so that it is compressed in the gullet or a part of it escapes between the plate and the log, the friction will cause the saw to heat. It is quite unnecessary to point out to an experienced sawyer the effects of trying to run a hot saw. In such cases either the feed must be cut down or a saw with a less number of teeth and larger gullets should be substituted.

"I apprehend this is one reason why saws with inserted teeth have come into favor with a certain class of sawyers, not that they are any better than one with solid teeth, but because as a rule they are further apart and have more space for the sawdust, and besides, the teeth are easier to keep in the original shape. If a saw with solid teeth, having the same number and the same clearance were used and the teeth kept in their original shape, there is no doubt but that a much thinner saw could be successfully used."

James McDonald, aged 17 years, was drowned while engaged in river driving on the Salmon River, Ont., for the Rathbun Company. The accident occurred at Newton's Mills, Crow Lake. His home is in the township of Sheffield near Tamworth.

Peter McLean, a lumberman, was drowned some weeks ago while crossing on the ice to Little Current, Ont.

The saw mill owned by Mr. Wm. Coon, near Rush Point, Ont., was destroyed by fire May 7th., together with a quantity of logs and maple lumber. Loss considerable; no insurance.

THE NEWS.

QUEBEC.

—The rise in the Cherry River has started all the stranded logs down stream.

—Messrs MacLaren & Co's. saw log drive on St. Dennis Creek, is hung up for the season.

—The Sawyerville mill will work up a large amount of hardwood lumber the coming season.

—A larger number of rafts of square timber, will go to Quebec by water this season than last.

—Nearly the whole of the Quebec spring timber fleet consists of vessels flying the Norwegian flag.

—The dropping of the anti-sawdust bill by the government has created a pretty strong feeling in Montreal.

—The first shipments of lumber from Quebec this season from American ports took place on May 24th, ex. barges.

—The Cookshire Mill Company and its new acquisition the Scotstown pulp and saw mills, under the name of the Scotstown Lumber Co., have on the stream and at the mills some 18,000,000 feet of lumber to saw and prepare for market.

—Bryant, Powis & Bryant Company, limited, sustained in its stock operation recently in the London market a drop of 25 per cent. on its quotations. The stock ruled at par, but on the receipt of the Davies defalcations it fell 25 per cent. on the dollar.

—The timber driven down the Moria will this year be one of the largest on record. It will consist of about 530,000 pieces, made up as follows: Gilmour & Co., 375,000 pieces; Rathbun Co., 130,000; Flint & Holton, 20,000; Lumber Cutting Machine Company, 3,000.

—The value of the shipments from the Vice-Consular, district of Cookshire to U. S. ports for the month of April was \$34,537,61, an average of over thirteen hundred dollars a day. The leading articles are pulp wood, R. R. ties, ship timber, clapboards, pulp, asbestos, lime, telegraph poles and spruce gum, of which last item 3,255 lbs. were exported.

—Mr. Justice Wurtelle has refused the petition of the Eddy Manufacturing Co. to wind up the affairs of the Henderson Lumber Co., Montreal, and has ordered them to give proof of their allegation that the latter company is insolvent. The Judge held that the mere fact that a firm did not meet its notes promptly was not sufficient proof of its insolvency.

—Mr. Francis Murtagh had a man drowned off his drive on May 8th. A gang of twelve men undertook to run two boats over Bear Chute on the Coulonge river. The first boat swamped in the cellar, but the six men in her hung on to the boat until they got ashore, but the last six men were not so fortunate, their boat filled with water and the men were obliged to turn her bottom side up and to get on top of her to save their lives. One French Canadian from Three Rivers missed his hold and sank to rise no more. Mr Murtagh forbid the men to run the rapids.

NEW BRUNSWICK.

—Rafting operations have commenced at the Douglas booms.

—All the lumber mills in the vicinity and at Marysville are again sawing.

—R. Swim & Son, general store and lumber, Doaktown, have dissolved.

—Mr. Gibson is shipping a large quantity of shingles cut in his Marysville mill to the American market.

—The late rains have swollen the streams in the province, and the logs are coming down in good shape.

—A million feet of logs have already entered the boom of K. F. Burns & Co. at their mills on the Nepisiquit River.

—The Miramichi River, N.B., is now open for navigation, and a number of boats are being rapidly loaded with lumber.

—The Madawaska Improvement Co., have prepared material for the construction of a large dam at the foot of Bear Lake.

—The Fredericton booms are estimated to have already received 100,000,000 feet of lumber and about 80,000,000 feet are on the way.

—The employees in the saw mills in St. John are discussing the propriety of taking steps toward reducing the day in their business to nine hours.

—Mr. Wm. Richards has leased the Muirhead mill at Chatham and will run it this season. The prospects are for a good season's sawing as Mr. Richards has a good supply of logs.

—The recent rains brought down all the Rusiagonish drives, and the logs are on the rafting ground. Some of the lumbermen have their lumber rafted and ready for market.

—Large quantities of railroad ties are being shipped to the

American market from Grand Falls. The price paid for them is \$13 per hundred—a much better figure than was obtained for them a few years ago.

—The boom across the southwest Miramichi broke away May 22nd, and a million of logs got adrift. The logs belonged chiefly to Richards & Lynch. All driving operations on the river have been stopped in consequence of the accident.

—The Madawaska Improvement Company are about to construct a large dam at the foot of Bark Lake. The dam is intended to keep a large reserve in the lake, which will be used for flooding when the drive is threatening to stick in some of the rapids further down the river.

—There is much activity among the lumbermen at Rogersville, N.B. The driving season has begun and promises to be a good one. Gill & Dalton, and Maloney have a large number of men employed on the waters getting the lumber down. As usual a very large quantity of railroad ties and posts have been got out during the past winter.

—The business prospects of the Lake St. John Railway during the ensuing season are said to be excellent. Nearly six thousand men have been employed along it making timber during the past winter, and it is calculated that it will bring to the Quebec market next summer over 60,000,000 feet of timber. Last year it carried 40,000,000.

—Notwithstanding the light fall of snow last winter in Kings and St. John counties, N. B., there has not been a better winter for the lumbermen in many years. Among the many operators on the main stream of the Salmon River, Robert Mills easily bears the palm. One day last week one team of horses hauled two loads containing 39 logs, which scaled 4,000 feet. Mr. Mills has been at work seven weeks, and has browed 7,000 pieces, and that on a three and one-half-mile track. Sussex can boast the champion axeman in the person of John McCaughey, who in one day chopped and made ready 60 logs, and his average was 50 a day.

—The St. John *Gazette* says: The past winter has been a favorable one for lumbering, taken on the whole, and the cut throughout the Province is perhaps larger than for the last few years. On the St. John river and its tributaries the total amount of lumber cut expected to be got out is considerably larger than last year. This year's cut on the St. John and tributaries, including pine, spruce and cedar, will amount to over 150,000,000 feet. Of the total about fifty-five million is Province lumber, while the rest was cut on the American side of the line. The heavy rains the past few weeks are keeping all the streams so well up that the prospects now are that in addition to this year's cut all the lumber hung up last year will be driven out, amounting to some forty-five millions. Seventeen millions of this was hung up in the Province, and twenty-eight millions on the American side. Logs are coming into Spring Hill very fast, most of them being yet bank stocks. Upwards of a million came in there yesterday, making 250 joints. The boom company will begin rafting on Monday. The amount of pine and cedar lumber cut this year is about 10,000,000 feet, much more than last year's cut. About 13,000,000 of cedar will be got out.

NOVA SCOTIA.

—It is reported that the Dominion Government will strictly enforce the sawdust law upon the LaHave River, N.S. and its tributaries.

—Some 700 men remained in the camps in the woods along the line of the Ship Railway the past winter awaiting the recommencement of work this spring. The season is at least two weeks late and cold at that.

MANITOBA AND THE NORTHWEST.

—James White is opening a lumber yard at Rapid City.

—J. L. Campbell, of Brandon, is about to embark in the lumber business at Melita.

—The Manitoba Lumber & Fuel Co., Winnipeg, has been sold out by the sheriff.

—J. A. Christie, of Brandon, has about 8,000,000 feet of logs waiting to be cut.

—R. S. Thompson, lumber, etc., Glenboro, has disposed of his branch business at Wawanesa.

—R. Heatherington, lumber dealer, Douglass, has purchased the business and stock of T. Greenwood, Brandon.

—The saw mill at Whitemouth, owned by D. Ross, was the first mill in that district to be put in operation this year.

—D. Sprague, of the Winnipeg saw mill, will cut 5,000,000 feet of lumber this year. His logs will be brought down the Red River from Minnesota.

—The Lake Dauphin district, says the *Minnedosa Tribune*, will soon have three saw mills in operation. This district of northern Manitoba is evidently going ahead, though it is but a short time since settlers started to go into that section.

BRITISH COLUMBIA.

—The McLaren-Ross Lumber Company's machinery is giving them perfect satisfaction, and those new machines designed especially for their mill by D. N. Kendall exceeds his most sanguine hopes.

—Mr. Nelson's mill on Cambria Island is well under way, and the machinery in the old Brunette mill, which is to do service in the new structure, is now being removed for the purpose.

—It is reported that a number of large lumber manufacturers from the vicinity of Barrie, Ont., will shortly visit the Coast with the object of investing in timber lands, and building a mill of large capacity.

—The Brunette saw mill is rapidly approaching completion. The engines are in their proper places, boilers are being bricked in, and the boiler house is well under way. Cutting operations will be commenced at an early date.

—Favorable progress is being made on the new mill to be erected at Hastings. The machinery will be of 150 horse power. The 50 horse power will be erected as a semi-portable, and with it will be cut the lumber for the larger structure.

—The American ship Pachtolus has cleared from Moodyville, with 808,000 feet of lumber for Shanghai. The Willie Reed, of New York, is ready to clear from the same point with 1,029,000 feet for Valparaiso, and the Ninevah will be ready by the end of the week with 1,000,000 feet for Sydney, Australia.

—The greatest boom that British Columbia has ever seen in the way of lumbering has been going on the past year, and from present indications the same rapid progress in mill building will continue for an indefinite time. This is certainly the great lumber country of the future, and Eastern capitalists fully realize the fact.

Rapid progress is being made on the new mill of the North Pacific Lumber Co., on Burrard Inlet, and in a short time, what a few months ago was a British Columbia forest, will be a scene of activity in the lumber industry. The machinery in this mill is being imported principally from Ontario, the greater part of which has been especially designed for the purpose. The company have already some eight acres of their mill site cleared and stumped on the north of the C. P. R. track.

—New Westminster *Columbian*: The Mechanics' Mill Company, manufacturers of lumber, sash, doors, blinds, shop fixtures, etc., is now in full running order and prepared to furnish any material in the above-mentioned lines. The proprietors of the mill are Messrs. Ackerman Bros., who are well and favorably known throughout the city and district. The interest of Mr. J. E. Knight in the business has been bought out by Messrs. Ackerman Bros., and the whole establishment is now under their control.

—The new buildings of the Brunette Saw Mills Co. are very nearly completed. Their appearance is most imposing and their capacity immense. The buildings are so placed as to be convenient for vessels loading lumber at the wharves and thus work will be executed in the most expeditious and safe manner. Nearly all the machinery is in place, and is of the latest and most approved description, part being specially imported from the east. The company have enough orders on hand to keep the new mills running at their utmost limit for some time to come. As has been often stated the Brunette mills are very advantageously situated for the loading of vessels of deep draught. The water along the front of their docks has an average depth of thirty feet, so that the largest ship that enters the Fraser can approach the Brunette saw mill docks with perfect safety. A large force of men is at work on the new mill buildings and adjusting the machinery, and the extension will probably be in running order in about a month or six weeks.

AMERICAN.

—The Penokee Lumbering company has closed a deal of 3,000,000 feet of lumber for shipment to England. It will go down the lakes to Quebec and thence to its destination.

—Clinton, Iowa, has a saw mill which cost \$200,000, and is capable of sawing 450,000 feet in eight hours. It has seven band and three gang saws and two batteries of ten boilers each.

—Messrs. Francis Bros., of Pakenham, Ont., have sold to Messrs. Saxe Bros., of Albany, N. Y., the White Fish Lake Indian Reserve. The price paid was about one hundred thousand dollars.

—Great forest fires have been raging in Northern Wisconsin. In the vicinity of Kings bridge, the lumber camps with all their contents and a large number of buildings have been destroyed. Thousands of acres of valuable timber have been burned over and nothing but heavy rains will save other timber tracts.

CORRESPONDENCE.

NEW BRUNSWICK MATTERS.

MADAWASKA, MAY 17th, 1890.

Editor Canada Lumberman:

Logs are floating very satisfactory this spring in this province, and the drives will, it is expected, reach the mills in good time. Morrison's drive has reached Grand Falls, and Cushing's is expected in to-morrow. The water has kept unusually high this spring, and is likely to continue so for some time, as at this date there is still considerable snow in the woods. Since the ice run out there has been a constant passage of both old and new logs, and the numerous drives which are yet to go down stream will doubtless make good headway.

The output this year will be about on a par with that of last year. A large amount of stock which has been held over since last season will be cut up the present summer, and lumbermen appear anxious to pick up all the small lots within their reach.

I noticed in your valuable journal of a recent date an article on the past and present of the lumbering interests of this province, and the article served to call to my mind incidents and experiences in the lumber camps fifty years ago. About that time I lumbered on the Musquash waters for the Lancaster Mill Co., and it is hardly necessary to state that the accommodation, both in the shanty and drives, was altogether different to what it is to-day. Our food consisted chiefly of pork and beans, fish, bread, molasses and tea. The *chef de cuisine* was not so well up in his art as he is to-day, but "the boys" retained their appetites and ate as heartily on our primitive fare as they do to-day with their fancy dishes of roast beef and plum pudding. Hundreds of times have we eaten our dinners in the woods far from camp with the bread frozen so stiff that it had to be cut with an axe or thawed out by the fire. The rude camp with a fire in the center and cots all around, was the accommodation we then had, but notwithstanding this I can look back on those old days and remember them as the most enjoyable time of my life.

Years ago Charlotte county produced the smallest men for lumbering and stream driving to be found in New Brunswick. The old-fashioned pick hand-spikes, cut from the woods, as necessity required, were the only tools in demand those days. Now we have all the latest improvements in the shape of pike poles, peavies and boot calks, but with all these modern conveniences I doubt whether much more progress in the driving of logs is being made. While the hardy woodsman always welcomes the advent of new appliances calculated to lessen labor and facilitate operations I have my doubts if a lumberman's life is more enjoyed now with all its comforts of a finished camp, such as good floors, beds, ranges and other luxuries, as it was in primitive times when but few conveniences were to be had.

The good old days when rafting was much lower than it is now, will be recalled by many. Men followed rafting as a regular business, and experience was as necessary as in any other line of skilled labor in which a man might embark. A good rafter knew the river like a pilot, and was as much at home in its channel as a red dog is under a kitchen stove. Life in the lumber camps and on the rolling wave, was full of its pleasures, and even the hours of toil were sent spinning along on the wheels of music and song. There was lots of fun in the business, and the girls along the shore had their little romances to tell as the fleets went by—romances just like those girls on land can tell. The history of those days and nights are left in pleasant rhymes, rattling stories and gleesome songs—some printed and some carried around in the shape of traditions—that once gladdened the hearts of thousands of rafters. Every fleet had its fiddler who could scrape out a break down and play "Rye Straw," the "Rocky Roads," "Haste to the Wedding," and so on; its warblers who filled the moonlight night with glorious songs; and its story-tellers, always practiced to the chin with yarns that raised a laugh and made hearts happy.

I visited Lefrèaux a short time ago and found it a desolate place. What was once fine mills and dwellings are now tumbling down with decay. Here in times past millions of feet of lumber were annually manufactured and shipped to Europe, while hundreds of men found employment in the mills and woods. Now only a few fishermen inhabit the place. Maganadavic in those days was also an important lumber point, but to-day is nothing. From here large quantities of square pine timber was shipped to England.

If more attention was paid to the protection of our forests by our local and Dominion politicians we would not be in the unenviable position we are in at present. Our milling interests have dwindled down next to nothing, and the greater part of our timber has been, and is being, cut by Americans and floated across the river to be manufactured in American mills. These logs are allowed to leave our province without

a cent of duty being paid on them, and as a result we are not only losing the revenue which should be ours, but our forests are fast disappearing, and our own people left to seek employment elsewhere. Surely the time has now come, if it ever will come, when united action should be taken to protect our own interests and put a positive stop to this wholesale slaughter of our forests.

OLD LUMBERMAN.

THE U. S. TARIFF ON LUMBER.

Editor Canada Lumberman.

SIR:—You will have observed that the Chicago *Timberman*, while making a fair criticism of some of my remarks in a recent letter to the *Journal of Commerce*, has probably made a misprint in the amount mentioned by me (when contrasting the advantages of those towing logs from the Canadian shore of Lake Erie to Buffalo and Tonawanda over those manufacturing on this side) when he makes me state this amount at \$7 per M. instead of \$4 per M. as mentioned in my letter.

I have, however, to admit that appearances are against the position I assumed of the improbability of our government changing its policy, because some of our Michigan friends were short of saw logs, and if one was not aware of the true inwardness of this affair, the *Timberman's* criticism would be justifiable when it says: "Mr. Little seems to be just a trifle wide of the mark, and unaware of the easy grace with which Sir John, notwithstanding his seventy odd years, can turn a summersault. Even while we write the news comes from Ottawa that the export duty will be removed, if the United States tariff on lumber is reduced \$1 per thousand."

The facts are that this action was taken by our government at the persistent importunity of the agents of our Michigan friends, who, after assuring us that Congress existed merely to record their wishes, made the proposal referred to, and who, as I surmised at the time, had no sooner got this exceptional proviso inserted in the U. S. Tariff bill than they set their agents here to work to ascertain what effect it might have; but learning that our people were perfectly indifferent in the matter, and that the export log duty would be restored to \$3 (if the export of logs was not prohibited altogether) should the ridiculous provision become law, they at once began to importune our government to permit them to say that the saw-log duty would be removed in case the lumber duties were reduced to \$1 per thousand.

It is but true remark that the export duty on sawlogs was never relished even by those who favored it as the lesser of two evils; but as Sir Boyle Roche said: "He was willing to throw away a part or even the whole of the constitution to save the remainder," we preferred even an export duty rather than wholly sacrifice a portion of our remaining timber.

At last, however, Sir John, not wishing to be too hard in this matter, out of that exuberance of good nature for which he is proverbial, and which he always evinces whenever the interests of our American friends are concerned, consented to their proposal, so that the backing down, if any, was rather on the part of our American friends, who, instead of insisting on a duty of \$3.50 per M. on Canadian lumber as they originally proposed, are pleased now to make the duty \$1 per M.

It is as I have already remarked, a matter of no moment whatever to us what the rate of duty may hereafter be on white pine and spruce lumber, as the duty whatever it may be, will have to be paid by the American people if they want the lumber, but it is to be hoped that the United States Congress, recognizing the great harm already done their country by this pernicious duty, now that the lumbermen have let go their grip and offered to reduce the duty one half, will go a step further in the right direction and remove the duty altogether, and thus get rid of the anomaly of charging duties on lumber, at a time when the condition of their forests on the Atlantic side shows that they should rather offer a bounty to any country willing to part with its timber, than to restrict its import by the imposition of any duty whatever.

WILLIAM LITTLE.

Montreal, May 20th, 1890.

MOODYVILLE, B. C., May 14th, 1890.

Editor Canada Lumberman.

DEAR SIR,—Noticing a short article in the April issue of THE LUMBERMAN headed "Copperine" I am lead to think that Mr. Gidley, of Little Bob mills, evidently intended to extend a recommendation for Mr. Spooner's Copperine, but has taken a curious way of doing it. I, too, will speak well in behalf of Spooner's best Copperine for we use a great deal of it, and have no hesitation in stating that it is the best anti-friction, as compared with its cost, that we have ever used. We sometimes are compelled to make proper Babbit metal to use alongside (so to speak) of Spooner's Copperine. Why do we do it? Because a genuine Babbit metal, under certain circumstances, outdoes, to a certain extent, the Cop-

perine. We would not go to the expense of making pure Babbit metal if no better than a cheaper make. Good Babbit metal costs from 40 to 60 cents per lb., and cannot be got for less, for the reason that the copper invariably costs 30 cents and antimony 25 cents. Adding to this the cost of preparation the proper article cannot be produced for less than the figure above mentioned. I know quite well where-of I speak, and am able to testify from practice to the difference in qualities of anti-friction metals. What I have stated in this regard is intended to assist Mr. Spooner and the use of his metal, but is done in a different way from that of Mr. Gidley, and I have no doubt but that Mr. Spooner will read this with actually better satisfaction. When we take the actual first cost of metal as a base for calculation Mr. Spooner's metal for seven-eighths of the purposes for which such metal is used, is certainly at the front; but it must not be said that lubricants may burn out without melting even the best (soft) anti-friction ever made, no matter what its cost. Such remarks are not in justice to Mr. Spooner's Copperine.

S. J. RANDALL,
Master Mechanic, Moodyville Saw Mill Co.

UTILIZE THE WASTE.

A correspondent writing from Portland, Me., to the *Sherbrooke Examiner* has the following to say in regard to waste in manufacturing hardwood lumber.

There has always seemed to the writer a great waste in the manufacture of hard wood such as birch, maple and ash in Canada, and as your correspondent is interested in the business a few remarks as to saving in the manufacture may not come amiss.

Many mill men when shipping here such a car with the expectation of having a large return from it, and when they come to have it inspected they think they are greatly cheated, when such is not the case. When a man buys a No 1 lot of boards he wants them and does not care to have the poor ones. What can he do? He cannot surely be expected to give a number one price for a number two article. And then what a loss to the shipper, he pays freight and duty on a low priced article and that reduces the profits. When visiting mills in your neighborhood last winter your correspondent was asked several times by mill men what shall we do with our second quality of lumber if we give you all our first? or that it did not pay to saw and send hardwood. There is a way out of this. Everything can be brought into use and there is a use for everything. Now instead of ripping and tearing into the logs if your mill men would consider that there can be got out of lumber a larger per centage of short clear stock and only a small waste than by saving it all into boards and plank, and this can be done by saving it into bobbin and spool stock. We append to this a list of the sizes that are mostly used, lengths and number of feet, and we feel sure that it would pay to manufacture it for this market for there are always orders for such stock and much of the waste slabs that are now thrown away could be cut up and made use of.

All this must be plump to gauge when thoroughly seasoned with the sides straight and parallel. The accompanying schedule has been found practically correct and mill men should make gauges to green size and see that the sticks fill them. Sticks cut tapering or 1-32 scant cause waste and annoyances.

There is a proper machine to cut such stock and can be set up with a small cost, and we feel sure that it would pay to cut such stock.

No. of sticks in a Bundle, whatever length.	Green size, inches square.	Day size, inches square.	No. of feet in Bundle 4 ft long.
120	9-16	1/2	10
76	11-16	3/8	10
53	13-16	3/8	10
45	7/8	13-16	10
38	15-16	7/8	10
34	1	15-16	10
30	1 1-16	1	10
27	1 5-32	1 1-16	10
24	1 7-32	3/8	10
22	1 9-32	1 3-16	10 1/2
20	1 11-32	1 1/2	10 5-12
18	1 13-32	1 5-16	10 1/2
16	1 15-32	1 3/8	10 1 12
15	1 9-16	1 7-16	10 1/2
12	1 1/8	1 1/2	9
12	1 1-16	1 9-16	9 3/4
12	1 1/4	1 3/8	10 9-16
10	1 13-16	1 11-16	9 1/2
10	1 1/8	1 1/2	10 1-5
9	1 15-16	1 13 16	9 5-6
8	2 1-32	1 3/8	9 3/8
8	2 3-32	1 15-16	10
8	2 5-32	2	10 1/2
7	2 7-32	2 1-16	10
7	2 9-32	2 3/8	10 1/2
6	2 11-32	2 3-16	9 3-5
6	2 13-32	2 1/2	10 1/2
6	2 9-16	2 3/8	11 1/4
5	2 11-16	2 1/2	10 5-12

INSPECTION OF PINE LUMBER.

As Adopted by the Lumber Section of the Toronto Board of Trade.

Inspectors of lumber must measure and inspect each piece as they find it of full length and width; imperfections are not to be measured out.

All lumber must be put into the grade its defects call for regardless of measurement.

All lumber over 1 inch in thickness must be measured full with the $\frac{1}{4}$ or $\frac{1}{2}$ added on each piece. (No fraction in width allowed.)

In inspection the Inspector is instructed to use his best judgment, based upon the rules laid down for his guidance.

The standard knot is to be considered as not exceeding $1\frac{1}{4}$ inches in diameter.

Splits are a greater or less defect to lumber, and must be considered accordingly.

All lumber must be cut plump in thickness and be well manufactured, and all lumber imperfectly manufactured shall be classed as Culls.

RULES FOR THE INSPECTION OF PINE LUMBER.

The following shall be the grades of lumber authorized by the Board of Trade of the City of Toronto:—

Clear Lumber shall be perfect in all respects and free from Wane, Rot, Shake or Check, not less than 12 feet long, 8 inches wide, and 1 inch thick. A piece 12 inches wide will admit of imperfections to the extent of one standard knot or its equivalent in sap. In lumber over 12 inches wide the Inspector must use his best judgment in accordance with the instructions above given.

Picks.—Pickings must not be less than 12 feet long, 8 inches wide, and 1 inch in thickness, well manufactured and free from Wane, Rot Shake or Check. A piece 8 inches wide will admit of one standard knot or imperfections in sap to the same extent; a piece 12 inches wide will admit of 2 standard knots, or imperfections in sap to the same extent. For lumber wider than 12 inches, of this grade, Inspectors will carry out the instructions as given regarding wide clear lumber.

No. 1 Cutting up shall not be less than 12 feet long, 7 inches wide, and 1 inch in thickness. Clear pieces 10 feet long and the required width are included in this grade; this must be free from Wane, Rot, Shake, or Check. Pieces from 7 to 9 inches wide will admit of imperfections to the extent of 2 standard knots or imperfections equivalent to them in sap. Pieces from 10 to 12 inches wide will admit of 3 standard knots or imperfections equivalent to them in sap, and wider for lumber of this grade Inspectors will follow instructions as given in two previous grades. Inspectors are informed that this grade is expected to cut out two-thirds Clear in profitable lengths to the consumer.

No. 2 Cutting up shall not be less than 10 feet long, 6 inches wide, and 1 inch in thickness, and shall cut at least one-half Clear in accordance with the instructions as given above regarding No. 1 Cutting up lumber.

Fine Dressing.—This grade of lumber shall be generally of a sound character, and shall be free from wane, rot, shake or check, not less than 10 feet long, 7 inches wide, and 1 inch in thickness. A piece 7 inches wide will admit of one or more knots which can be covered with a 10c. piece if they are sound. A piece wider than 7 inches will admit of one or more knots of the same size according to the judgment of the Inspector in regard to the width.

Common Dressing shall not be less than 10 feet long, 7 inches wide, and 1 inch in thickness, and shall be free from wane, rot, shake or check, and shall be generally of a sound character, and will admit of standard knots that will not unfit it for dressing purposes.

Common shall be free from rot and unsound knots, and well manufactured, not less than 10 feet long, 7 inches wide and 1 inch in thickness.

Strips.—Clear Strips shall be from 4 to 6 inches wide, not less than 12 feet long, and 1 inch in thickness, and shall have one perfectly clear face free from all imperfections; bright sap will be permitted on the reverse side.

Sap Strips for fine dressing shall be from 4 to 6 inches wide, not less than 12 feet long and 1 inch in thickness,

and will admit of one knot which can be covered by a 10 cent piece, in a piece 4 inches wide; and two knots of like size in a piece 6 inches wide. All strips free from other imperfections and having bright sap on two sides would be admitted into this grade.

Common Dressing Strips shall be from 4 to 6 inches wide, not less than 10 feet long, and 1 inch in thickness, and shall be well manufactured and generally of a sound character, will admit of knots which are sound and not coarse, and which will not unfit it for ordinary dressing purposes.

Common Strips shall be from 4 to 6 inches in width, not less than 10 feet long, and 1 inch in thickness, free from rot and wane, and to be of coarse, sound character.

No. 1 Culls.—This grade shall consist of lumber above the grade of No. 2 Culls, and shall admit of coarse knots and stains and be free from rot; it shall also admit of pieces imperfectly manufactured, below 1 inch in thickness and perfectly sound and not rendered worthless through improper manufacture.

No. 2 Culls shall be lumber that will work one half sound.

WHAT THEY SAY OF US.

THE LUMBERMAN at all times appreciates the good words spoken of it, not only by those who from issue to issue peruse and inwardly digest its contents from a business standpoint, but also from our confreres of the press. Since the removal of the publication to Toronto the press of the country has been profuse in its expressions of good-will and its appreciation of our efforts, to one and all of which journals we would extend our sincere thanks.

A brief extract from a few of these notices will suffice to show our readers the esteem in which the LUMBERMAN is held by members of the fourth estate.

"A worthy exponent of the large and influential industry, which it claims to represent."—*Toronto Empire*.

"THE LUMBERMAN is a good thing of its class, and contains much that is interesting and instructive to lumbermen, workers in wood, and the general reader."—*Barrie Advance*.

"It is a creditable publication in every sense, and deserves success."—*Miramichi Advance*.

"It is brim full of all sorts of reliable information in its line, and is invaluable to the lumber trade."—*Huron Examiner*.

"It is a fine specimen of typography, and the interests of the lumber trade and of allied industries are served well by this publication."—*Toronto News*.

"THE CANADA LUMBERMAN is a paper of sterling worth and we are gratified to hear that it is experiencing a degree of prosperity commensurate with its merits."—*Chicago Timberman*.

"It is an excellent monthly, and should be in the hands of every man engaged in the lumber business."—*Shelburne Free Press*.

"We are glad to note that success has attended a paper that is a credit to Canadian journalism, and to the business whose interests it represents."—*Montreal Trade Review*.

"It presents a neat typographical appearance, and abounds in valuable information for the lumber trade."—*Toronto World*.

"THE CANADA LUMBERMAN is one of our most valued exchanges, and we wish it the greatest success."—*Savo Mill Gazette, New York*.

"Our contemporary shows signs of prosperity in the very creditable appearance it makes, and the lumbermen have an organ which they ought to appreciate."—*Patent Review*.

"It cannot be too heartily recommended to the notice of all interested in the lumber trade."—*Orillia Packet*.

"An excellent publication and should be in the hands of all interested in lumbering."—*North Star*.

"This enterprising journal has met with great success, and must continue to deserve an ever increasing patronage."—*Deseronto Tribune*.

"It is the best got up periodical in Canada, whether as to editorial matter or typographical appearance."—*Pembroke Standard*.

"It is a most ably conducted journal, and should be in the hands of all those interested in the lumber trade. It contains the latest and trustworthy market reports from various points throughout the world."—*Sherbrooke Examiner*.

"One of the best journals of its class in America."—*Midland Free Press*.

"Thoroughly well edited and is one of the finest specimens of typographical work in the country."—*Maitoum Examiner*.

"As a paper devoted to a special interest, and that interest of a very great and growing importance in this country, THE LUMBERMAN is a credit alike to its publishers and to Canada."—*New Westminster, (B. C.,) Truth*.

HOME AND FOREIGN TRADE REVIEW.

Office of CANADA LUMBERMAN, }
May 31st, 1890.}

The local lumber trade has been unusually quiet during the past month, and still remains so, with little prospect of any immediate improvement. The strikes in the building trades, and the stringency in money matters, have had a depressing effect in nearly every branch of business, and we need not look for much change for the better until the strikes are ended and there is an easing up in money matters. While there are quite a number of improvements going on in the city, there is a noticeable lack of buildings going up in the suburbs compared with the last two or three years, caused by the fact that in too many instances suburban investments have ceased to be remunerative. While orders are continually coming in from the country, there is no disguising the fact that the poor crops of the past two years have been a great drawback to the prosperity of the lumber trade. The trade of the Ottawa Valley shows signs of improvement, as there is an improved demand over that of a month ago, yet the shipping is not as heavy as it was during the same period of the previous year. While the consumption of lumber in Canada and the United States may be considered good, there is a noticeable depression in the trade occasioned by the unsettled condition of the tariff, as buyers for the British and South American markets are holding off, believing that if the McKinley bill passes in its present shape, they will be able to purchase at their own prices.

It is impossible to predict at the present time with any degree of accuracy what the lumber business will amount to the present summer, as much depends on undeveloped circumstances.

The financial embarrassment of Smith, Wade & Co., of Quebec, has brought about a depressed feeling in the trade of that city, and the prospects of the lumber business are anything but assuring. It is estimated that this year's output in pine will be over fifty per cent. larger than last year, and it is predicted by some that this will have the effect of reducing prices in the English market.

FOREIGN.

Latest advices from London report the hardwood market as exceptionally brisk, and generally speaking there is a good steady market all round, prices being firm without in any instance being high. Business between dealers and merchants is good, being stimulated by the continuance of the demand for consumption in regard to all the descriptions respecting which it has been good for sometime past, and an appreciable improvement with regard to most of the kinds, which have of late shown signs of dullness. The American walnut trade has increased enormously during the past twelve months, and the market continues brisk, possessing all the encouraging features which it has exhibited for many weeks past. The hardwood imports have been large, though the arrivals have not been numerous.

There is a fair inquiry for American whitewood Lumber of good quality is in demand, and logs find ready sale. Prices are good, but low grades are weak, and stocks more than ample.

There is a steady demand for cedar at Liverpool and the stocks in dealers' hands are now within a small compass. Small parcels of American walnut and whitewood continue to come to hand, and in spite of their generally poor quality meet with fair sale immediately they are landed going principally into the hands of dealers. The latter has been imported rather freely, but as the demand is good there has been no difficulty in disposing of the various parcels as soon as landed.

BRITISH BOARD OF TRADE RETURNS.

The Board of Trade returns for April show an increase in the importation of all the descriptions, as compared with the corresponding month of last year. In heavy goods the quantity imported, exceeds by 22,517 loads, and in sawn goods by 9,311 loads, the quantity imported during April, 1889. The total quantities are, heavy 172,076 loads in April, 1889, against 194,593 loads during April of present year, the respective quantities of sawn goods being 195,981 loads, as compared with 205,292 loads. The increases in some goods relate exclusively to the importation from Baltic ports; these goods from all other countries show a decrease, and this also is chiefly the case with regard to heavy timber, there being a decrease from the British East Indies and the United States.

TRADE REVIEW.

Toronto, Ont.

TORONTO, May 31st, 1890.

The city trade has been dull for sometime, owing to the continued strikes in the building trades, but a fair amount of country orders have been coming in. The sawing season has fairly set in and the drives as a rule are making good progress. Navigation is fairly active. Prices remain unchanged.

CAR OR CARGO LOTS.

Table listing various lumber products and their prices, including items like 1 1/2 and thicker clear picks, 1 1/2 and thicker, three uppers, etc.

YARD QUOTATIONS

Table listing yard quotations for items such as Mill cut boards & scantlings, Dressing stocks, Shipping cut boards, etc.

Hamilton, Ont.

HAMILTON, May 31st, 1890.

Table listing lumber products and prices for Hamilton, including Mill cut boards, Dressing stocks, Shipping cut boards, etc.

Ottawa, Ont.

OTTAWA, May 31st, 1890.

All the mills are now running and doing good work, but owing to the large stock of lumber wintered over, the cut this summer will not likely be up to that of last season, which was an exceptionally good one. It was thought that the reduction in the ship rates this spring would have materially increased the demand from the English market, but it has not been felt as yet by the manufacturers. The drives from the upper streams have commenced to arrive and business along the river has quite an animated appearance.

Table listing lumber products and prices for Ottawa, including Pine, 1st qual., 2nd, shipping culls, etc.

St. John, N. B.

ST. JOHN, May 31st, 1890.

Table listing lumber products and prices for St. John, including Spruce deals, Pine, Deal ends, Scantling, etc.

Montreal, Que.

MONTREAL, May 31st, 1890.

Table listing lumber products and prices for Montreal, including Pine, 1st qual., 2nd, Pine shipping culls, etc.

Vancouver and New Westminster, B.C.

NEW WESTMINSTER, May 31st, 1890.

Table listing lumber products and prices for Vancouver and New Westminster, including Car load and ship rates, What Plank and Timber, etc.

Albany, N. Y.

ALBANY, N. Y., May 31st, 1890.

The spruce and hemlock men report a good business, with orders ahead. Prices will have a tendency to ease off a little when the new lumber comes in, especially on spruce and hemlock. There is quite a little business doing in hardwoods, notably in oak, ash and cherry. There is little doing in walnut. Shingles are in fair demand, and lath are selling well.

Table listing lumber products and prices for Albany, including Good, 1x10 in. each., 1x12 in. culls, etc.

Buffalo and Tonawanda, N. Y.

BUFFALO, May 31st, 1890.

Hardwoods are moving very freely and at strong prices on quotations. The greatest drawback to the lumber trade at the present time has been strikes, and aside from this the lumber trade in Western New York would be in good condition. Lumber receipts at Tonawanda have been quite heavy this spring, and the trade is hopeful of doing a good season's business.

Table listing lumber products and prices for Buffalo and Tonawanda, including Clear, 1 to 2 in. all widths, Dressing, 1 to 2 in. all widths, etc.

New York City

NEW YORK, May 31, 1890.

White pine is in increased demand as compared with the last few weeks, and is about equal to the trade of last year. Hardwoods are unchanged. Quartered oak and poplar, ash, maple, elm and hickory, all find ready sale at current rates. Cherry is still short in supply and high in price. The export trade in walnut seems to be improving, while other hardwoods find their due quota of foreign sales. The shingle trade has improved considerably this spring, and while competition is keen, sales are active. Lath are somewhat firmer in price, with a slight prospect of further increase.

Table listing lumber products and prices for New York City, including 3/4 in. clear, 1 and 1 1/2 inches, 1 1/2 and thicker, etc.

Burlington, Vt.

BURLINGTON, May 31, 1890.

Lumber shipments from this market have been very fair since the opening of the season. Dressed lumber is in good demand and all the planing mills are running full time and some of them overtime. The supply of cars is under the requirements. Prices are well maintained, and collections are fair.

Table listing lumber products and prices for Burlington, including Canada Pine idings, Select & shelving, Pickings & better, etc.

Saginaw, Mich.

EAST SAGINAW, May 31, 1890.

While there is a good deal of lumber selling in a quiet way, yet complaints of dullness are common. Prices rule about the same as a year ago. Some lots of box have been sold at \$11. Under inspection the quotations range at \$5.50 to \$10 for shipping culls, \$17 to \$20 for common, and \$36 to \$38 for uppers. The local yards are pretty free customers, and planing mills and factories are busy. Shingles are in better demand. Clear butts range at \$1.90 to \$2.10, and XXX at \$3 to \$3.25.

CARGO LOTS.

Table listing cargo lots for Saginaw, including Uppers, Common, Shipping Culls, Mill Culls.

Table listing yard quotations for Saginaw, including Clear, 1 1/2 in., 3/4 in., etc.

Oswego, N. Y.

OSWEGO, May 31st, 1890.

Since the opening of navigation trade has been fairly active. The demand for white pine, 1 1/2 inch and thicker, No. 1 cutting up and better, is good. Receipts of lumber so far have been rather light.

Table listing lumber prices for Oswego, N.Y. including items like 'Three uppers, 1 1/2, 1 1/2 & 2 in', 'Pickings, 1 1/2, 1 1/2 & 2 in', and '12 & 16 ft. mill run'.

Table listing lumber prices for Oswego, N.Y. including items like '12 & 13 ft. mill run, mill culls out', '12 & 13 ft. dressing and better', and 'XXX, 15 in pine'.

Boston, Mass.

BOSTON, May 31st, 1890.

The movement in lumber is confined almost entirely to spruce and southern pine. Under the pressure of an active demand and scarcity of supplies, the spruce market is in a very firm condition. Random spruce is quoted at \$15 to \$16, and dimension at \$16 to \$19.

Western Pine—by car load.

Table listing lumber prices for Western Pine by car load, including items like 'Uppers, 1 in', '1 1/2, 1 1/2 & 2 in', and 'Selects, 1 in'.

Eastern Pine—Cargo or Car Load.

Table listing lumber prices for Eastern Pine, including items like 'Nos. 1, 2 & 3', 'Ship's bds & coarse', and 'West'n pine clapds'.

Spruce—by Car.

Table listing lumber prices for Spruce by car, including items like 'Scantling and plank', 'random cargoes', and 'Yard orders, ordinary'.

Lath.

Table listing lumber prices for Lath, including items like 'Spruce by cargo', 'Spruce', and 'Pine, 1 1/2 in extra'.

EXCHANGE ECHOES.

Northwestern Lumberman. A great many mill men profess to favor the land saw as an economizer, as well as a means of securing nicely manufactured lumber, but they do not carry their economy as far as they might.

the forest to rot, no fires should be carelessly left to burn, and nothing should be sacrificed at the mill. In many localities almost as much timber is left in the woods to decay as is cut, and half as much stock is thrown away at the mill as is sold.

New York Lumber Trade Journal. Never in the history of the Spruce trade was the time so auspicious for advancing prices. The price at which Spruce is selling by the cargo to-day makes it impossible to make a cent at combination prices, and a very careful investigation leads us to believe that the chance of getting cheap Spruce this summer is very slim indeed.

Southern Lumberman. If complaint, abuse and loud-mouthed recrimination prove obstacles in the way of the lumber commission merchant, he certainly finds Jordan a somewhat difficult road to travel, for he is constantly reviled, accused of extorting excessive commission and charged with sacrificing lumber at almost any price when put on the market.

CASUALTIES.

Edward Folley, a workman at the Vancouver saw mill, had his thigh fractured by a log rolling on it. Andy Forbes fell off a car while loading square timber at Sundridge the other day and badly hurt himself.

The boiler in the steam saw mill of Kerr Bros., Farran's Point, Ont. exploded May 15th, completely demolishing the mill and killing a young man by the name of Romboogh. Frank Doneis, 23 years of age, unmarried, and a resident of Maidstone Cross, was drowned at Romney, Ont., in Lake Erie, while rafting for the Essex Land & Lumber company.

John Golivars, who is employed as a cutter at J. R. Booth's mills, Ottawa, had his right leg broken May 17th, owing to a stick of timber being blown on top of him by the high wind. At Deseronto, Ont., May 19th, James Master, conductor on the refuse train of the Kaitiun company, while stepping on the moving train fell under the cars and received probably fatal injuries.

FIRE RECORD.

J. Wheeler's grist and shingle mill at Freelon, Ont., was destroyed by fire April 28th. Loss heavy. Mr. Hodgins's saw mill, located a few miles from Portage du Fort, Quebec, was burned May the 8th. A saw mill owned by Lazare Denier, at St. Julia de Somerset, Que., was destroyed by fire May 3rd.

PERSONAL.

Mr. William Vanstone, for many years engaged in the milling and lumbering business, died at Brussels last month. Mr. Geo. W. Strickland, of Lakefield, Ont., vice-president of the Lakefield Lumber Company, died at his residence in that village, May 15th, after a few days illness. Thomas Nester, one of the wealthiest and best known lumbermen in Michigan, was stricken with apoplexy on May 10th, and died two days later at Barga, in the Upper Peninsula.

WOOD SPLIT PULLEYS.

The Dodge Manufacturing Company was the very first party in the United States to make a successful wood split pulley, and interchangeable for shafts of different sizes is not denied by any one, and that they have thus been great benefactors to mechanics and manufacturers, is also not denied. That they have stood by the manufacturers with the best belt pulley that can be purchased, at reasonable prices, is demonstrated by the numerous failures among the imitators who have been constantly springing up.

OUR SPECIAL GUARANTEE.

We guarantee every pulley made by us shall be, in every respect, as represented. We guarantee the poplar face in every case, to transmit from 25 to 60 per cent. more power with the same belt, than any iron pulley made, with like tension belt. We guarantee the compression fastening in every case to be perfect, and to hold firmly upon the shaft. We guarantee the compression of wood on iron to hold stronger than set screws in any case, and to be the most perfect fastening ever invented.

WINNIPEG LUMBER TRADE.

There is a noticeable increase in the movement of lumber at Winnipeg, but the full volume of the season's trade has not yet been reached. Following are the prices at the different mills in the Keewatin district: Dimension: 2x4 to 12x12, 12 to 16 ft. long, \$14; do. 10, 18 and 20 ft. long, \$15; \$1 per M advance on each inch over 12 in. surface; 50c per M on each foot over the above lengths to 24 ft. long; \$1 per M advance on each foot over 24 ft. long; surfacing 50c per M; surfacing and sizing \$1 per M. Boards: 1st common, rough, \$16.50, dressed, \$17.50; 2nd common, rough, \$14, dressed, \$15; culls, rough, \$10, dressed, \$11; 1st common, stock, 12 in. rough, \$19, dressed, \$20; do. 8 and 10 in. rough, \$18, dressed, \$19; 2nd common stock, 12 in. rough, \$16, dressed, \$17; do. 8 and 10 in. rough, \$15, dressed, \$16; 10 ft. long and under, \$1 less per M. Shiplap, 10 in, \$16; 8 in, \$15.50; 8 and 10 in. flooring and siding, at \$1 per advance. Siding, ceiling and flooring: 1st, 6 in. \$29; 2nd, 6 in. \$25; 3rd 6 in, \$21; 4th 6 in, \$18; 1st 5 in, \$29; 2nd 5 in, \$25; 3rd, 5 in. \$20; 4th, 5 in, \$17; 1st, 4 in, \$29; 2nd, 4 in, \$25; 3rd, 4 in, \$19; 4th, 4 in, \$16; \$1 per M advance for dressing on both sides; \$1 per M less for lengths 10 ft. and under. Bevel Siding: No. 1, 1st siding, 1/2 in x 6 in, \$20; No. 2, 2nd siding, 1/2 in x 6 in, \$17. Finishing (1 1/4, 1 1/2 and 2 in): 1st and 2nd clear, \$45; 3rd clear, 40; select \$30; shop, \$25; 1 inch 1st and 2nd clear, \$40; 3rd clear, \$32; No. 1 stock, 35; No. 2 do. \$30; No. 3 do. \$25. Mouldings: window stops, per 100 ft. lineal, \$1; parting strips, do, 60c; 1/4 round and cove, do., 75c. Casing: 4 in. O. G. per 100 ft. lineal, \$1.75; 5 in. O. G. do., \$2.25; 6 in. O. G. do., \$2.50; 8 in. O. G. base, do., \$3.50; 10 in. O. G. base, do., \$4.25. Lath, \$2. Shingles: No. 1, \$3; No. 2, \$2.50; No. 3, \$1.50; No. 4, \$1.

QUARTER SAWED LUMBER.

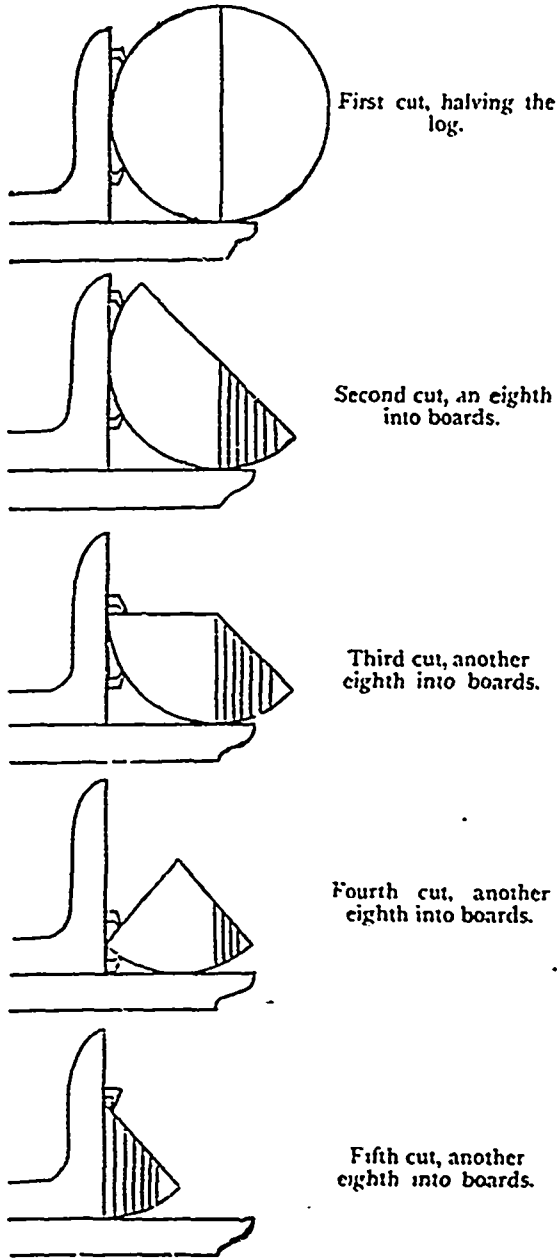
A number of enquiries having been received of late regarding the best method of cutting quarter-sawed lumber, we reproduce an article on this subject which appeared in THE LUMBERMAN some four years ago, and which, we think, with the illustrations produced, will give our readers a practical idea of the most suitable method yet adopted. We are indebted to the Southern Lumberman, of Nashville, Tenn., for the illustrations in this article.

Within the past few years there has sprung up quite a brisk demand for "quarter sawed" lumber. This demand is based mostly on the fact that lumber of any kind cut in this manner shrinks less and warps less than that sawed in the usual manner and is really more valuable for nearly all purposes, but its popularity is also due, in some measure, to the fashion that is gaining prevalence for figured oak and other Southern hardwoods, for interior finish, for panels, furniture and many other uses. It is one of the most sensible fashions ever started, because it is a well-known fact that the greatest shrinkage in any lumber is in the direction of the periphery, or circumference of the tree, and the least shrinkage and slightest warping is in a line "with the grain" from the bark to the heart of the tree. To cut lumber as nearly like clapboards or staves are riven, with the least possible loss of timber, is the object of "quarter" sawing. The most desirable feature is to secure clearness and width. None but the best logs 14 or 16 feet should be cut if the highest prices are expected. The width should never be under five inches, and the wider it is the better. All boards should be cut "full," so as to dry up to full thickness. The best thickness is 1 inch to 2 1/2 inches. Thick lumber commands \$3 to \$4 per thousand more than boards, but the demand is as yet limited for thick stuff, and it requires more time to season. Our experience is that it is better to dry quartered oak before trimming off the bevel edge and the sap, as this plan gives a more perfect board, but it costs more and some good mill men differ with us.

These sketches were produced from the rough pencil sketches sent in by practical saw mill men, and the descriptions are given in the accompanying text. This goes to show that one practical man can convey his ideas to another practical man better than anybody else can do

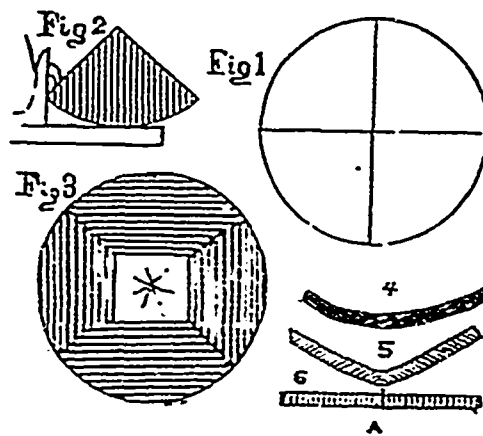
it for him, and that the lack of drawing skill or a college education will not debar him from imparting practical ideas through the columns of any paper.

The plan mostly used in the band mills in Nashville is that of Mr. J. D. Allan. It is best to have lower dogs, but not absolutely necessary, as we have seen good work done by using wedges on the head-blocks. Following are the best known plans for cutting quarter-stuff.



The other half of the log is cut in the same manner.

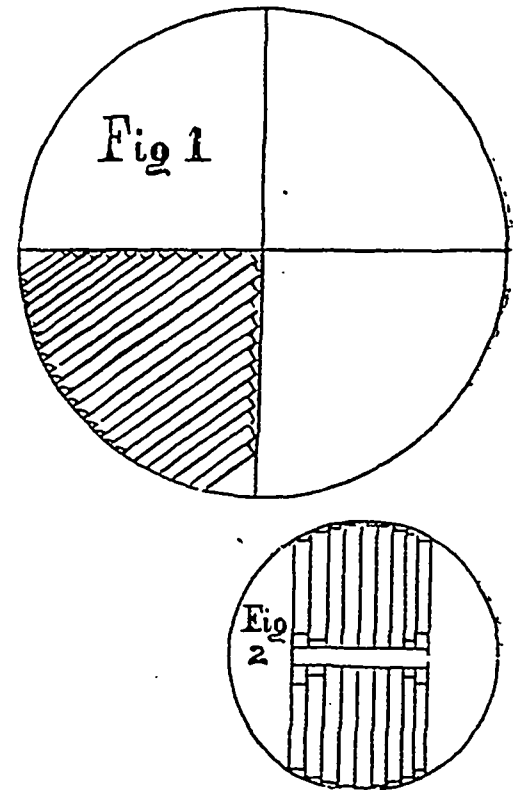
D. J. ALLEN, NASHVILLE, TENN.



DAVID G. GREEN, BELLEFONTAINE, O.

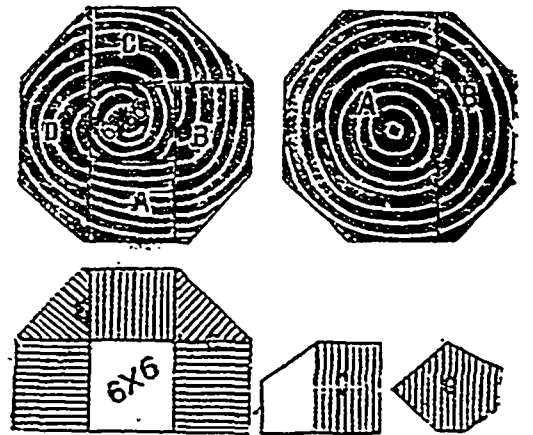
Fig. 1 shows a log full and the way it should be quartered. Fig. 2 shows a quarter on block and the way it should be sawed for "quarter-sawed." Fig. 3 shows a log cut the way it should be sawed to get "grain-sawed" lumber. Fig. 4 shows a grain-sawed board and the way it would warp. Fig. 5 shows a board warped at the center only, which illustrates itself. Fig. 6 shows a board sawed directly through the heart. It

will not warp, but will burst open at A; it will not shrink in width, but will get thinner. It will warp in the direction of the bark. That is why quarter-sawed lumber should never be edged up until it is seasoned.



M. C. ADAMS, ELLETTSVILLE, IND.

MR. EDITOR,—I notice in the columns of your paper the question is asked how to saw "quartered" oak * * I have a drawing of the way saw it:—Fig 1 represents a log that is quartered by sawing through the center first, and then splitting the halves in center. Lay quarter on blocks with bark side down, and saw it as represented in the drawing. The object of "quartering" is to show the grain of the timber, and I think this way the best. Fig. 2 represents a log that is too small to quarter. The part that is not lined off may be sawed as the sawyer may wish, the balance, if sawed as represented in drawing, will sell as "quartered" lumber, for it is plain to be seen that it will show the grain or figure as well as if the log had been quartered.



T. M. & J. C. DICKSON, INDIANAPOLIS, IND.

We notice in your issue of October 1st you wish ideas in regard to quarter-sawed oak. We enclose you a diagram showing the method we have used for years, and with great advantage, and if any benefit to you in your investigations, you are welcome to it.

- 1. Take octagon A, (right hand at top), saw off B, three inches from center.
2. Turn A down flat and cut off C.
3. Turn A down again and cut off D.
4. Turn A back and cut off 6x6 of heart.
5. Turn A heart side down, and finish in boards.
6. Put C on blocks and cut boards as indicated.
7. Finish balance of C as indicated in G.
8. Cut E and B same as C.

All the saw boards are saved in making the octagon, and the heart is made into a 6x6. Use no logs less than 26 inches in diameter at the small end.

VALUABLE MILL PROPERTY FOR SALE.

THE SAW MILL formerly owned by E. Dunstan, better known as the Hickory mill, situated on Maldstone avenue, in the town of Essex.

MACHINERY FOR SALE

LIST of woodworking machines for sale by H. W. PETRIE, Brantford, branch opposite Union Station, Toronto.

- ONE new eclipse planer and matcher, Galt make.
PLANER and matcher, Detroit make.
CHAMPION planer, matcher and molder, nearly new.
LITTLE GIANT planer, matcher and molder, Price \$200.
PLANER and matcher, wood frame, good order.
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NEW poney planers and matchers only \$175.
27 inch double surfacer, revolving bed, Cowan & Co. make.
24 inch poney planer, Ross make, Buffalo.
No. 1 poney planer, McKechnie & Bertram build.
24 inch wood frame planer, Kennedy & Sons make.
ONE planing machine knife grinder.
24 inch wood frame surfacer planer, cheap.
24 inch surface planer, Rogers make, Norwich, Conn.
25 inch surface planer, American build.
21 inch wood frame planer, Kennedy & Sons build.
22 inch surface planer, McKechnie & Bertram.
22 inch wood frame planer in good order.
25 inch wood frame planer in good order.
12 inch diagonal buzz planer, new, Galt make.
DANIEL'S planer, R. Hall & Co. make.
MATCHER, Kennedy & Sons make, Owen Sound.
BEADING and molding attachment for planer, Ross, maker, Buffalo.
No. 2 three side molding machine, Galt make.
THREE side molder, Rogers make, Connecticut.
NEW power morticer, Galt make, also several second hand.
ONE chair or upright boring machine.
IRON top shaper, Goldie & McCulloch builders.
CENTENNIAL top jig saw, Goldie & McCulloch builders.
DOUBLE cope tenoning machine, Dundas make.
TENONING machine without copes, price only \$60.
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WOOD turning lathes several sizes.
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ONE Improved iron frame saw, new, Buffalo make.
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SHAPER, iron top, Goldie & McCulloch builders, at a bargain.
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DODGE wood split pulleys at manufacturer's prices. Quick delivery.
FOOT and hand nutting machine, latest designs.
FOOT and hand wiring machine, Galt make.
FULL particulars of any machine in above list on application. Send for my descriptive lists of Engines, Bolders, Iron and Woodworking machines, Waterwheels, &c. H. W. PETRIE, Brantford and Toronto.

T. SHORTISS, DEALER IN PINE & MINERAL LANDS 9 Toronto Street, TORONTO, ONT. CORRESPONDENCE SOLICITED.

WANTED AND FOR SALE.

Announcements in this department will be inserted at the uniform rate of two cents a word for first 20 words and one cent for each additional word, payable in advance.

LUMBER SALESMAN with connection in Toronto and Western Canada open for engagement. Address "H" office of "Canada Lumberman," Toronto.

NOTICE—Splendid opening for any person wishing to go into the Saw-mill business. For sale in the town of Parry Sound, Steam Saw mill. New and good machinery. Also quantity of logs and some timber limits. For full particulars apply to S. & J. ARMSTRONG, McKellar, Ontario.

CASH paid for all kinds of hardwood lumber; give full particulars: car or cargo lots only. W. N. MCEACHERN & Co., No. 3 dock, Toronto

WOOD-WORKING FACTORY WANTED. Hepworth station, on G. B. & L. E. Div. of G. T. R., presents a splendid opening for a hardwood working factory of some kind. Abundance of beech, maple, elm, birch and black ash can be purchased cheap. A suitable building, with boiler and engine if required can be procured near the station by applying to J. E. MURPHY, Hepworth station, Ont.

HARDWOOD lumber, bought, sold or received on consignment. TUCKER DAVID, lumber commission merchant, 313 Eleventh Ave., N.Y.

FOR SALE—pine timber, four hundred acres; estimated at two million feet; 4 miles from railroad station; soft white pine, suitable for twenty to sixty foot bill stuff. Apply to E. TODD, Hepworth.

LATH WANTED. A large quantity of No. 1 Lath, green and dry, for present and future shipment. Address. PORTER, ROBERTSON & CO. 35 Adelaide St. East, Toronto.

A BUSINESS OPPORTUNITY. For Sale, Rent, or Partnership—sash and door factory and saw mill; adjoining the city; doing a good business and can be largely extended; first-class machinery and 60 horse-power engine, dry kiln, etc.; premises suitable for shipyard. For particulars apply to M. STRACHAN & SON, Kingston, Ont.

RAILS AND CARS FOR SALE. Light Steel Rails for Tramways. good order. Cars for lumber, cheap. JOHN J. GARTSHORE, 49 Front St. West, Toronto.

FOR SALE CHEAP—SAW AND STAVE MILL. In county of Essex—46 acres fine farming land, good farm buildings—plenty of timber near; only 2 1/2 miles from two different railways—terms easy—splendid bargain—must be sold JAMES S LAIRD, P. L. S., Essex, Ont.

A. P. & W. E. KELLEY CO. WHOLESALE Lumber dealers, Yards at Tonawanda and Chicago. Correspondence invited. LAYCOCK LUMBER CO. MANUFACTURERS of Pine, Hemlock and Oak Timber up to 55 feet in length. Saw Mills: Ackley, Pa. Black Rock, N. Y., Gravenhurst, Ont. Office, corner Main and Seneca Sts, Buffalo, N. Y.

WILLARD W. BROWN. 202 Main Street, Buffalo, handles all kinds of Hard Woods.

C. P. HAZARD. WHOLESALE dealer in Lumber, Shingles, Lath and Fence Posts. Correspondence invited from the Canadian trade. No 92 River Street, Buffalo, N. Y.

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Buffalo Hardwood Lumber Co. OFFICE and yard, 175 Louisiana Street, Buffalo. Holders of Hardwood stocks are invited to correspond.

EMMET FLEMING. INSPECTOR and Commission dealer in Lumber. Office, 251 Louisiana Street, Buffalo, N. Y.

THE TONAWANDA LUMBER CO. MILLS at East Tawas, Mich.; office, 106 Main Street, opposite N. Y. C. and H. R. R. R. Station, North Tonawanda, N. Y.

J. & T. CHARLTON. WHOLESALE dealers in Masts and Spars. Canada Round Pine, &c. Tonawanda, N. Y.

L. A. KELSEY LUMBER CO., (Ltd.) MANUFACTURERS and dealers in Hardwood Lumber of all kinds. Describe stock and write for prices. Office Tonawanda, N. Y.

BOVEE & HOWDEN. MANUFACTURERS and Wholesale dealers in Hard and Soft Wood Lumber. Holders of Canadian stocks are invited to write for quotations. Offices at Tonawanda and Le Roy, N. Y.

IMPORTANT AUCTION SALE

Gilmour & Company's Mills and Limits on Gatineau and Trent Rivers. Messrs. Gilmour & Co. will offer for sale by auction at the RUSSEL HOUSE, at the CITY OF OTTAWA,

the whole of their valuable mills and limits, with plant, real estate, lumber, etc., on the 9th DAY OF APRIL, 1890

at 2 o'clock, p.m. The sale will be in parcels. For a full description of the parcels, list of chattels and details apply to either of the undersigned or at the offices of the firm at Ottawa, Chelsea, Trenton and Quebec. Dated 28th November, 1889. ALLAN GILMOUR, Ottawa. JOHN GILMOUR, Chelsea, Que. DAVID GILMOUR, Trenton. J. D. GILMOUR, Quebec.

POSTPONEMENT.

GILMOUR MILLS AND LIMITS.

The sale of the above properties, advertised to take place on the 9th April, is postponed until the

31ST JULY, 1890,

when they will be put up without further postponement at the same hour and place. Dated 5th April, 1890. ALLAN GILMOUR, DAVID GILMOUR, JOHN GILMOUR, J. D. GILMOUR.

IMPORTANT SALE

TIMBER LIMITS.

The estate of the late David Moore will offer for sale at Public Auction at the Russel House, in the City of Ottawa, on

TUESDAY, 28th OCTOBER, 1890

at three o'clock in the afternoon the following valuable timber limits: PARCEL No. 1—400 square miles on Kippewa river, in the province of Quebec, and being berths Nos. 57, 58, 47, 46, 65, 64, 62, 63. PARCEL No. 2—Berths No. 3 on the north shore of Lake Huron in Ontario, license No. 103 of 1889-90. Area, 36 square miles.

PARCEL No. 3—Berth No. 1, township of Springer in Ontario, license No. 104 for 1889-90. Area 34 square miles.

PARCEL No. 4—Berth No. 15 on the north shore of Lake Huron, in Ontario, license 105 of 1889, Area, 36 square miles.

The purchaser will be bound to take the supplies on each limit according to schedule and valuation. For terms and conditions of sale apply to E. D. Moore, Esq., Hull, and to the undersigned. J. R. FLEMING, Advocate, 110 Wellington St., Ottawa. 5th February 1890. CHRISTIE & CHRISTIE, Solicitors, 353 Sparks St., Ottawa.



TENDERS.

SEALED TENDERS marked "For Mounted Police Provisions and Light Supplies," and addressed to the Honorable the Minister of Railways and Canals, Ottawa, will be received up to noon on Tuesday, 3rd June, 1890.

Printed forms of tender, containing full information as to the articles and approximate quantities required, may be had on application at any of the Mounted Police Posts in the Northwest, or at the office of the undersigned. No tender will be received unless made on such printed forms. The lowest or any tender not necessarily accepted. Each tender must be accompanied by an accepted Canadian bank cheque for an amount equal to 10 per cent of the total value of the articles tendered for, which will be forfeited if the party declines to enter into a contract when called upon to do so, or if he fails to complete the service contracted for. If the tender is not accepted the cheque will be returned. No payment will be made to newspapers inserting this advertisement without authority having been first obtained. FRED. WHITE, Comptroller, N.W.M. Police. Ottawa, April 22, 1890.



Notice to Contractors.

SEALED Tenders, addressed to the undersigned, and endorsed "Tender for Kingston Dry Dock," will be received at this office until Friday, the 27th day of June next, inclusively, for supplying, setting in place, and delivering in complete working order, the Pumping Plant in connection with the Dry Dock, now in course of construction at Kingston, Ontario, in accordance with the conditions and stipulations contained in the form of tender, and plan attached thereto, copies of which can be obtained on application to the undersigned at Ottawa and W. O. Strong, Esq., Resident Engineer, 30 Union street, Kingston, Ont.

Tenders will not be considered unless made on the forms supplied and signed with the actual signatures of tenderers. An accepted bank cheque, payable to the order of the Minister of Public Works, equal to five per cent of amount of tender, must accompany each tender. This cheque will be forfeited if the party declines the contract, or fail to complete the work contracted for, and will be returned in case of non-acceptance of tender. The Department does not bind itself to accept the lowest or any tender. By order, A. GOBEL, Secretary. Department of Public Works, Ottawa, 17th May, 1890.

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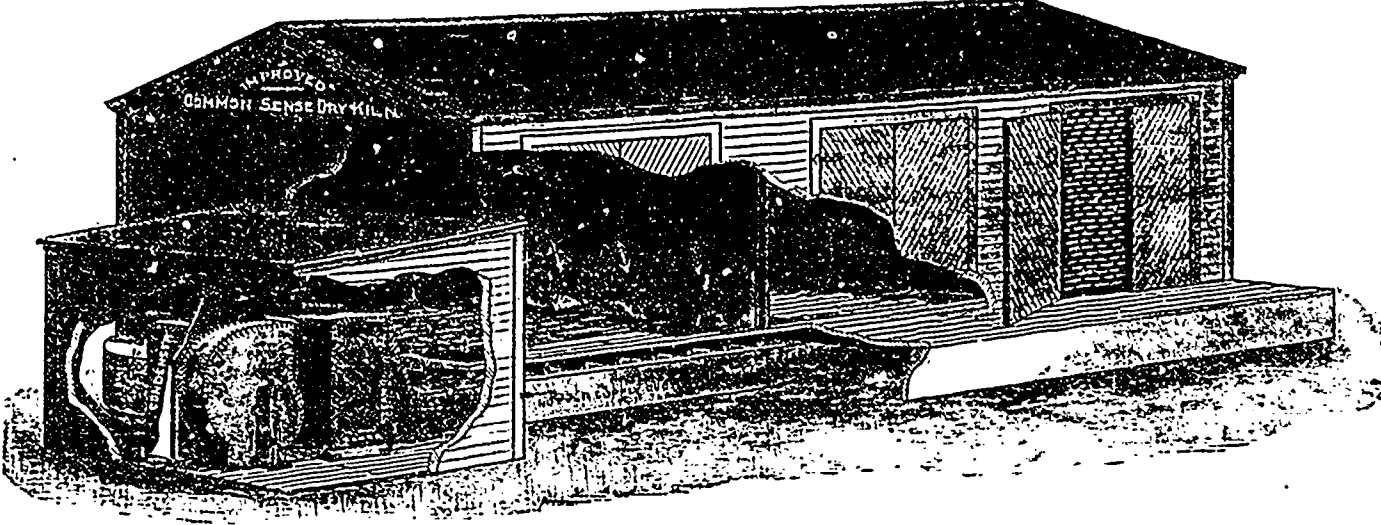
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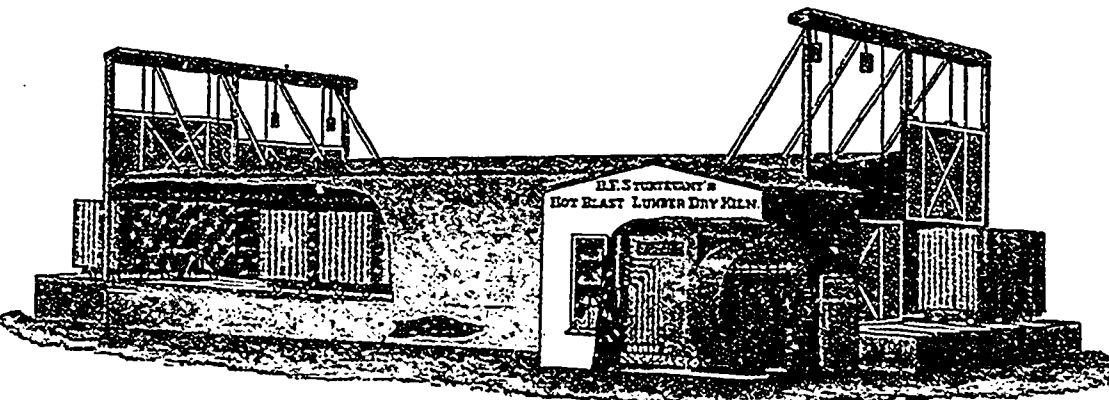
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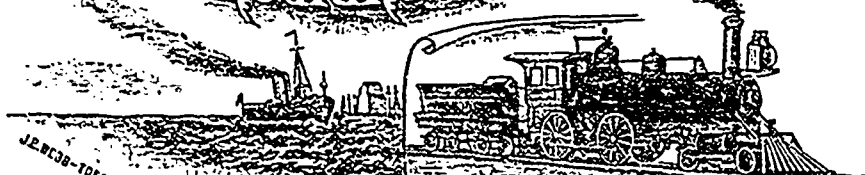
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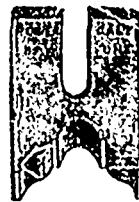
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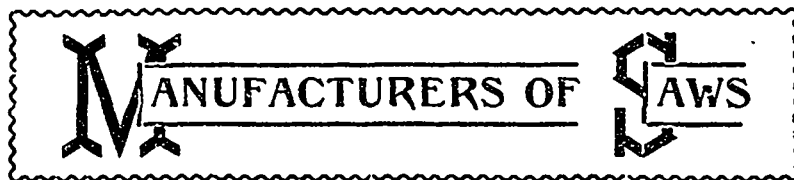
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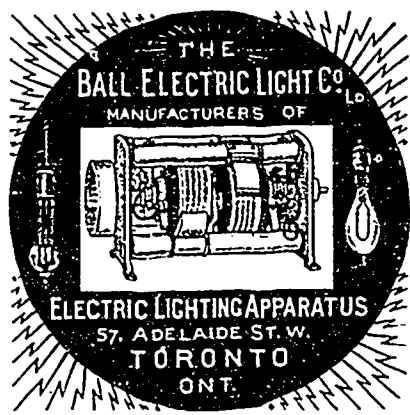


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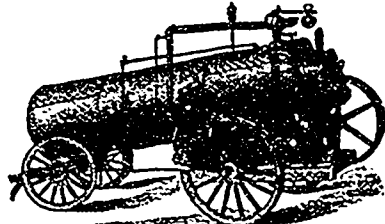
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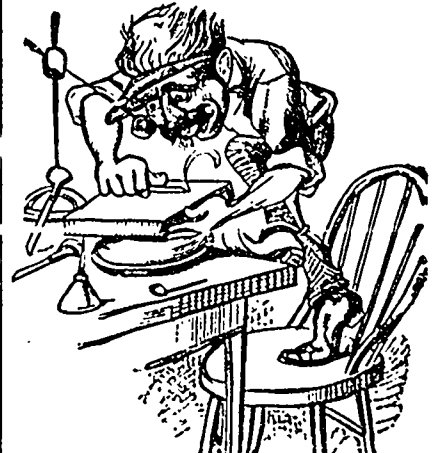
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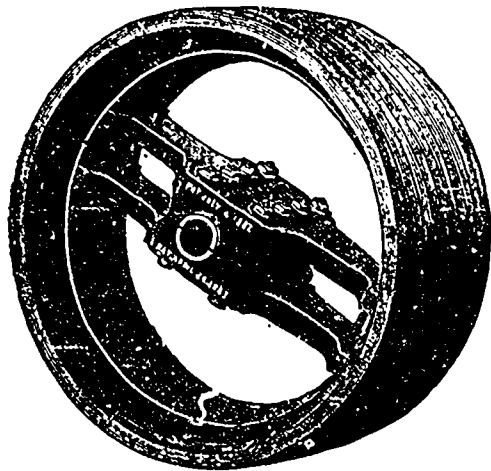
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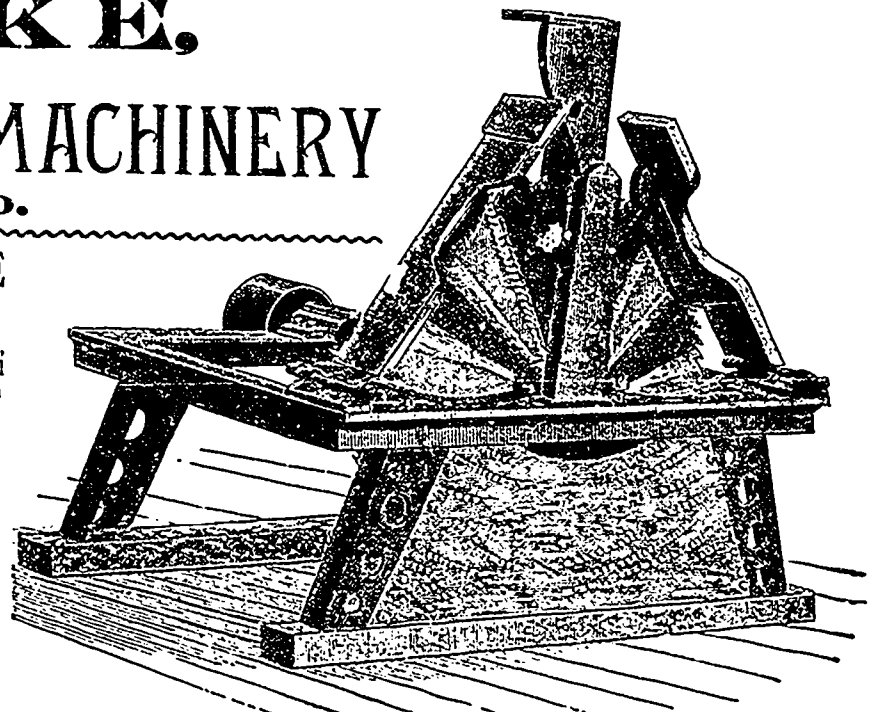
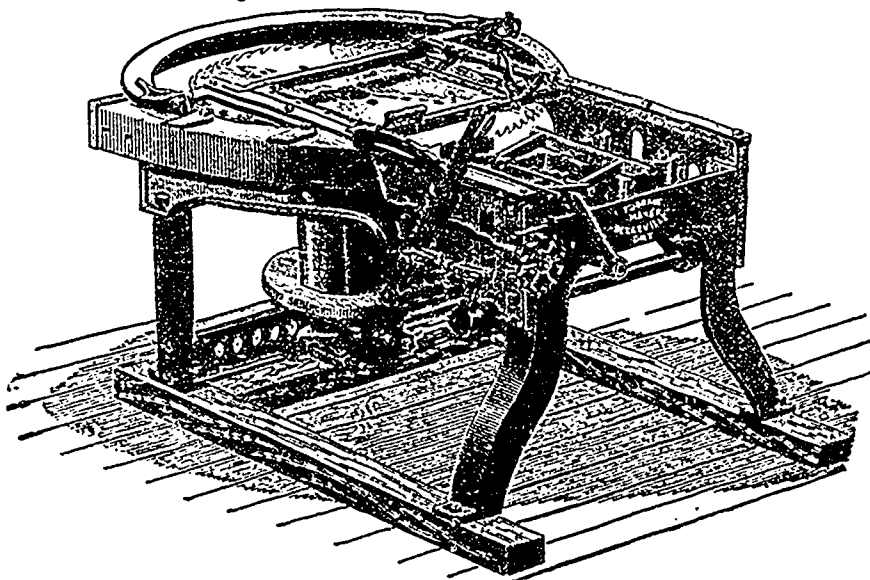
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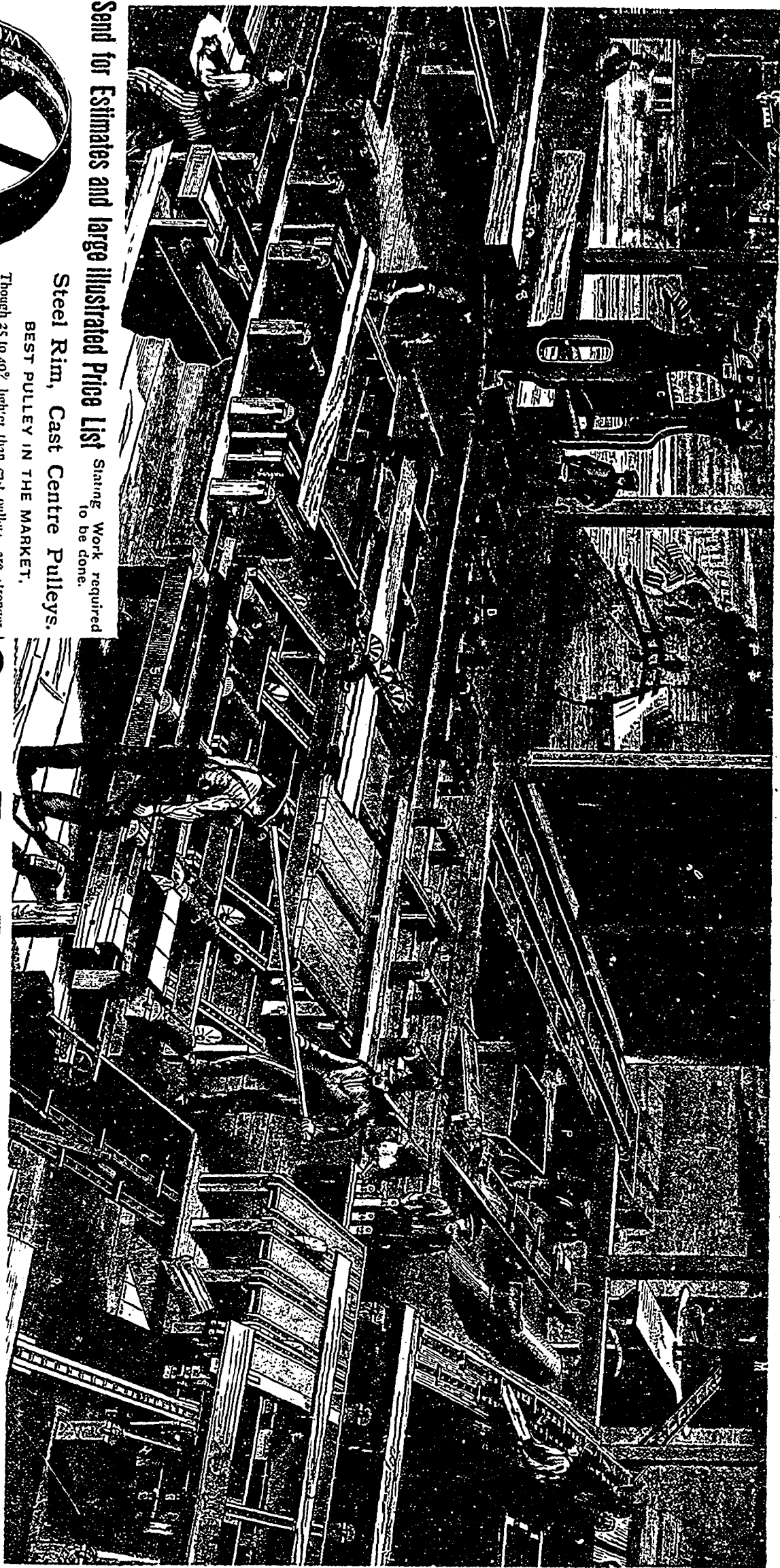
It has a heavy iron frame made for two operators, two inch steel saw arbor, with extra long bearings; driving pulley 8 inches diameter, 7 inch face, saw 40 inches diameter, 16 gauge, speed, 1,600 per minute.

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