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# THE CANADA LUMBERMAN.

VOLUME VIII. }  
NUMBER 3.

PETERBOROUGH, ONT., MARCH, 1888.

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SINGLE COPIES, 10 CENTS

## THE CANADA LUMBERMAN

PUBLISHED MONTHLY BY

ARTHUR G. MORTIMER.

OFFICE: SIMCOE STREET, PETERBOROUGH, ONTARIO.

### TERMS OF SUBSCRIPTION:

One Copy one Year, in Advance, . . . . . \$1.00  
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Advertising Rates Furnished on Application.

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

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

THAT phase of the complex *embroglio* relating to his charges against the late Quebec Administration of acting corruptly and unfairly against the settlers in favor of Messrs. Gilmour, has resulted in the removal of the reverend father to the United States by his ecclesiastical superiors. The Provincial journals are making an ecclesiastical and political squabble of the matter, some upholding the changes and some maintaining that the Ross Administration was falsely accused; some defending the priest and others supporting the authority of his superiors. The action of the ecclesiastical authorities in removing Father Paradis is a strong indication of the opinion formed by independent judges.

THE provisions of the new tariff bill as presented to Congress, by which it is proposed to place timber on the free list, are gladly welcomed by Canadian lumber operators, but we fear it will never pass its third reading. Should this bill pass the House Canada will be benefitted by the free admission of the following products:—Timber, hewn and sawed and timber used for spars and in building wharves; timber, squared or sided; wood, unmanufactured, not specially enumerated or provided for; sawed boards, planks, deals and all other articles of sawed lumber; hubs, for wheels, posts, last blocks, wagon blocks, oar blocks, heading blocks and all like blocks or sticks rough hewn or sawed only; staves of wood, pickets and palings, laths, shingles, clapboards, pine or spruce logs, provided that if any export duty is laid upon the above mentioned articles, or either of them, by any country whence imported, all said articles imported from this country shall be subject to duty as now provided by law.

THE Ontario Government may thank the lumbermen for the good showing that Mr. Ross, their Provincial Treasurer, was able to make in his budget speech. The great success of the sale of timber limits which Mr. Pardee, the Commissioner of Crown lands, offered for competition in December, must have been highly satisfactory to him and his colleagues, especially in view of the fact that there were circumstances, to which we

need not now recur, that might have been expected to operate prejudicially to a certain extent. The receipts from the lumbermen were so large as to meet not only the liabilities for the year for aid to railways but also a large portion of the contemplated expenditure on the proposed new Parliamentary building. Not only is the capital account thus kept down through the large purchases by the lumbermen of provincial property, but their extended operations will continue to add largely for rental and stumpage dues to the current revenue for some years to come. It will therefore be seen that Ontario is largely indebted to the lumbermen for her prosperity.

AT Washington there is still much talk of reducing the excessive revenue receipts by a modification, if not a total abrogation, of the customs duties on raw materials. Lumber is one of the articles that has been generally mentioned as coming within this category. Indeed several projects looking in this direction have been submitted to Congress, but their fate is altogether uncertain. Just now the two great political parties in the United States are looking to the approaching Presidential election, and every movement is considered chiefly with reference to its probable effect upon that event. The fact that they are thus watching each other tends to neutralize all their efforts and to make any action less likely through the fear of its affording a chance of its being used prejudicially to those making the movement. However, though Presidential elections occur very often they do not happen every year, and next year a mutual arrangement may be more feasible. It is useless to talk business while men are thinking more of elections than of the ordinary affairs of the country.

FROM the fact that the Fishery Commissioners at Washington declined to enter upon any arrangements for reciprocal trade between Canada and the United States, the prospect of any remission through that means of the duty on lumber can be considered at an end. There is evidently to be no reciprocity by treaty at least, whatever other means there may be of attaining the same end. Those who looked to diplomacy to secure the desired result will therefore be disappointed, but few have supposed of late that the Commissioners would seriously entertain the project. It was generally understood that the representative of Canada would not consent to a more extensive exchange of free goods, and that the representatives of the United States were not willing to renew the Reciprocity Treaty, which, rightly or wrongly, they deemed not to have been advantageous to their country. The difference of opinion was too great to be easily adjusted, and they did not deal with this branch of the matters in discussion between the two countries. The publication of the text has put an end to all conjectures on this subject, showing that it provides for no reciprocity, except conditionally as regards fish. Any such free exchange or reduction of duties is left at present to the sphere of legislative action in the two countries.

THE Montreal *Journal of Commerce* attributes the decadence of Quebec, as a lumber port, to the arbitrary interference of the Ship Laborer's Union, since its exorbitant demands forced the shipping trade to ports where these obstacles were not met. On the other hand, Montreal has been built up, it is asserted, by a freedom in stevedorage, in spite of the superior national advantages of Quebec, where the policy pursued has had the effect of turning business over to Montreal. A comparative statement is made in the lumber shipments by sailing vessels from Quebec, from 1877 to 1887, inclusive, showing a decrease of from 796 vessels, with a total of 670,627 tons in 1877, to 721, and 206,172 tons in 1887. The year 1880, with 634 vessels and 555,451 tons, was the second largest, with a continued drop since then, excepting a spurt in 1883, when 487 vessels cleared, with 416,169 tons. One reason for the decrease has been that many mills which formerly sent deals to Quebec now deliver them direct to the ships and steamers. This most marked falling off is seen in the amounts exported from Quebec in 1886 and 1887,—2,271,069 feet, and 1,365,510 feet respectively. Montreal's lumber shipments were 3,500,000 in 1877, and 98,250,000 feet in 1880, with a probable increase for 1887. The competition of Baltic timber in the English markets has affected the export trade, and the

outlook is not altogether bright, though a limited production of lumber has left light stocks. Mill concerns are said to be turning their attention more to the United States trade and less to the Quebec buyers. The late half prices realized on timber limits suggests a general advance in Canadian stumpage, induced by the decrease in accessible supplies, and the most difficulty is said to be experienced in getting first class white pine. The supply of red pine is ample. Oak is of stronger feeling, the supply having been moderate and the export demand fairly large. Other hardwoods show fairly. This winter's log production promises to be small, and prices are now good.

A GENTLEMAN writing from St. John, N. B., to THE LUMBERMAN, calls attention to the following special features of the New Brunswick lumber trade. He says:

"The trade here is totally different from that of Upper Canada for many reasons. (1) Our stock is nine-tenths spruce, cut full length of tree, and manufactured as far as possible into three and four inch lumber; (2) Such a thing as stock boards is unknown, because we have very little pine and it would not pay to cut it in even lengths, either in the woods or mill; (3) Our stumpage dues are collected on a different principle (Quebec has now adopted our style, but not our log scale); (4) Our lumber is classed differently; (5) On account of the St. John being an international river there are two distinct classes of lumbermen and mill owners here. The American who has the right (by the treaty of Washington and resolution of Congress) to manufacture lumber here cut in the State of Maine, and ship the same to the American market free of duty, and the provincial millman who, no matter where his lumber is cut, would have to pay duty if exported to the United States, and therefore is forced to make England his market. The manufacture for the two markets, too, is very different."

We will at some future time dwell on this matter at further length, and shall be pleased in the meantime to receive any points which any of our readers may be able to furnish

Now that the Government of Ontario is forming a new Ministry of Agriculture and is consequently making minor rearrangements in other departments, advantage might be taken of these changes to make certain improvements in our system which would be very beneficial both to the country and the lumber trade. If a sub. department, or bureau of Forestry, were formed, the Crown Lands might be divided, after proper examination and survey, into forest lands and land open for agricultural settlement. This would avoid much friction, waste and even destruction of property. On the one hand the settlers would not be grumbling at the lumbermen taking the pine from their farms, for settlement need not be allowed on the limits when there is elsewhere plenty of better land for agriculture. Nor would there be any encouragement for bogus settlers having no object but to secure the pine under pretence of homesteading. On the other hand the lumbermen would not be hurried to cut the timber from those portions of their limits that are settled or about to be settled, such haste often leading to want of economy in their operations or to premature cutting when delay would be expedient. Again the lumbermen would not be exposed to the increased risk of fire which much follow partial settlement with its burnings to prepare the land for the plow; nor would they have their property destroyed by actual forest fires, involving much complete or partial destruction and the necessity for the immediate felling of burnt timber to save it from destruction. With the Crown Lands properly classified much of these evils might be obviated or greatly lessened. And there need be no restriction upon agricultural settlement, for as more farm land was required, former forests where the soil is suitable to agriculture, might be transferred and opened to settlers. Such a system would also have the incidental advantage of determining the extent of the remaining forests of Ontario, thus affording valuable information to the lumber trade, economising our forests resources, and improving the revenue of the Province from the source which even now contributes to it so largely. Sometimes the lumbermen are blamed for the too rapid destruction of our forests, but in many cases haste is forced upon them by the present system. There is now a good chance for its modification.

### THE SAFETY OF STATIONARY BOILERS.

A measure very closely affecting the interests of saw-mill proprietors, as well as other manufacturers, has been introduced into the Provincial Legislature by Mr. Carson, M.P.P. It provides for a yearly examination of boilers in connection with stationary engines by a duly appointed government inspector, and also that all engineers and firemen shall be obliged to pass examination as to their competency. The bill establishes four grades of ability and defines the class of engine which the holders of certificates of these respective grades shall be qualified to take charge of as follows:

A first-class engineer shall require a thorough knowledge of steam and its uses, of the use of the steam engine indicator, the principles of combustion, the details of the construction of boilers and engines, the strength of materials used in such construction, general mechanics, the principles of steam heating and the working of condensers and feed pumps, and such certificate shall entitle the holder to operate any steam plant.

A second-class engineer shall require a thorough knowledge of steam and its uses, general mechanics, the principles of steam heating and the working of condensers and feed pumps, and such certificate shall entitle the holder to take charge of and operate any steam plant of one hundred horse-power or less.

A third-class engineer or fireman shall have a fair knowledge of steam and its uses and the principles of steam heating and the working of feed pumps, and such certificate shall entitle the holder to take charge of and operate any steam plant of fifty horse-power or under.

A fourth or special class engineer shall require a fair knowledge of the working of feed pumps and be thoroughly capable of taking care of any boiler under his charge, and such certificate shall entitle the holder to take charge of any steam plant or portable engine of fifteen horse-power or under.

Those at present in charge of engines or boilers are allowed to operate them for one year on payment of \$2 for a permit, after which they must pass the examination and apply for a certificate. Certificates will run for one year, and the fee of \$5 will be charged to all applying for the first examination, renewals costing \$1. Owners of boilers are required to pay \$5 for each annual inspection. Owners or managers of boilers who entrust them to persons not duly qualified under the Act are subject to a fine of not less than \$10 or more than \$250. Licensed engineers who discover that the boilers they are operating are unsafe are to notify the manager and demand that they be repaired. In case of refusal or neglect the responsible party is liable to a fine of not less than \$100 or more than \$500. The bill came up for a second reading on the 24th ult., and was referred to a special committee. There is a fear on the part of some engaged in manufacturing industries that the passage of the measure will entail undue trouble and expense upon them. Considering the large number of those employed to manage stationary engines, the fee, \$5, seems unduly large. The same remark applies to the charge for inspecting boilers. As the object of the measure is to provide for the safety of the general public as well as of those employed about engines, it would only be reasonable that the burden of the necessary expense involved should be partly borne by the public. The startling statistics quoted by the introducer of the bill leave no room for doubt that the present system of allowing boilers to be operated by persons who may be entirely ignorant of engineering is a glaring abuse and causes an appalling loss of life every year. There is just as much need for regulations with a view to secure the safety of steam boilers and the competency of engineers in connection with stationary engines as in regard to marine boilers. The statement that according to the reports of insurance companies 700 of the 6,000 stationary engine boilers in Ontario are unsafe shows the urgent need for government supervision. The principle of the measure is sound and just, but in working out its details we trust that every care will be taken to render it as little oppressive as possible in its bearing upon the important interests with which it deals.

### NEW TIMBER REGULATIONS.

An extra of the *Quebec Official Gazette* contains the new regulations recently adopted in respect to the management of Crown and timber lands. They provide that newly acquired licenses and renewals of licenses to cut timber shall be subject to a yearly ground rent charged at the rate of three dollars for each square mile or fraction thereof, and establish the following scale of dues to be levied on all timber cut: Oak and walnut, per cubic foot, 4 cents; pine, birch, basswood, cedar, spruce, elm, ash, tamarac and all other square timber, per cubic foot, 2 cents; pine saw logs, boom and dimension timber and all other logs or woods intended for sawing, except spruce, hemlock, cypress and balsam, per standard of 200 feet board measure, (equivalent to \$1.30 per thousand feet,) 26 cents; spruce, hemlock, cypress and balsam saw logs, per standard of 200 feet, board measure, (equivalent to 65 cents per thousand feet), 13 cents; cordwood, hard, per cord of 128 cubic feet, 20 cents; cordwood, soft, per cord of 128 cubic feet, 10 cents; cedar rails, not exceeding 12 feet long, per 100, 30 cents; cedar pickets, per 100, 15 cents; rails of other wood than cedar and not exceeding 12 feet long, per 100, 10 cents; cedar and pine shingles,

short, per 1,000, 10 cents; cedar and pine shingles, long, per 1,000, 15 cents; cedar or other telegraph, telephone or electric light poles, not exceeding 10in diameter at the butt or large end, per lineal foot, ¼ cent; ditto, exceeding 10 inches at the butt, per lineal foot, ½ cent; railroad ties of all kinds of wood, each, 2 cents; hemlock lathwood, per cord of 128 cubic feet, 20 cents; hemlock bark, ditto, 32 cents; pine, cedar, spruce, birch or other small logs, not exceeding 10 feet in length, nor 10 inches in diameter at the smaller end, for shingles, spools, small board stuff, or paper pulp, per cord, 128 cubic feet, 25 cents; futtocks, knees, floors of birch and other shipbuilding material, and all wood goods not enumerated in the foregoing list, an *ad valorem* duty on the invoice or bill of 10 per cent.

### PERSONAL NOTES.

MR. A. LECH, secretary treasurer of the Wm. Hamilton Manufacturing Co., Peterborough, who has been confined to his home through sickness for some months, has, we are pleased to know, fully recovered, and is again attending to his onerous duties.

We are pleased to learn that Mr. T. G. Hazlett, one of Peterborough's most extensive lumbermen, who has been ill for some time is now convalescent.

THE LUMBERMAN had the pleasure of a call a short time ago from Mr. John A. McAvity, of the well-known firm of T McAvity & Sons, St. John, N. B. He was pushing business for the firm in this section of the country and meeting with good success. The Orono Cant Dogs and Boot Calks manufactured by the company are meeting with ready sale wherever introduced.

MR. ELBRIDGE G. MERRICK, for many years engaged at shipping square timber to England from Canada, at which business he grew very wealthy, and of late years engaged in the vessel and lumber business at Detroit, Mich, died Feb. 11th.

GEO. MCWILLIAMS, late of the firm of Kincaid & McWilliams, Peterboro', has accepted the position of mechanical superintendent of the Ontario Canoe Co., of the same place.

MARTIN A. RYERSON, aged 33, heir of the millionaire, lumberman Martin Ryerson, of Chicago, who died recently, has given in trust property worth \$250,000 to eight charitable institutions, four Protestant and four Catholic. The gift was a free one on the part of young Ryerson, though in line with his father's oft-expressed wishes.

### PUBLICATIONS.

*Lumber*, a very neat 16-page weekly, under the able editorship of A. H. Hitchcock, late of the *Timberman*, has made its appearance in Chicago. A paper of the same name was previously published in New York, but it was far from being a credit to the influential industry it aspired to represent. Under Mr. Hitchcock's management, however, it ought to command at least a fair share of trade, notwithstanding the fact that Chicago already has three other papers of a similar nature. *Lumber* has our best wishes.

The *Toronto Saturday Night*, edited by Mr. E. E. Sheppard, is one of the best gotten up and most entertaining literary publications on the continent. The latest issue always seems to be the best, and if it keeps this up much longer *Saturday Night* will be a necessity in every home. Those of our readers who have any desire to see a all-round Canadian literary paper should address the Sheppard Publishing Co. Toronto, for a copy of the above.

"Scientific Diary Practice; or Profitable Diary Agriculture for Canadian Farmers" is the title of a new work just completed by W. H. Lynch and issued by the Dominion Government. Its contents are such as to be of incalculable benefit to every Canadian farmer and owner of cattle. It treats scientifically on the methods necessary for the successful carrying on of a diary, and will prove an invaluable help to all such engaged. The book is well gotten up and contains several illustrations.

### TORONTO CORRESPONDENCE.

TORONTO, Feb 29.—Business still continues dull. There are some enquiries for bill stuff and the commoner grades of lumber, and prices continue steady with the prospect of an advance. There is some demand from the United States for cutting up lumber. With the opening of spring it is probable that there will be considerable activity in the building trade in Toronto, and at several points in Western Ontario. The demand for house accommodation, consequent upon the continued influx into the city, and the fact that owing to the labor troubles, many building enterprises contemplated last year were postponed, encourages the expectation of a particularly busy season.

Lath is moving at good figures and is in quite a demand. Credit will not be so easily obtained this year as was the case

in the past. This is a good thing, the less of that the better for all. There is no necessity that any dealer should sell to parties about whom there is the slightest doubt. It is not very difficult to obtain information respecting any individual builder, and to any one at all doubtful a positive refusal should be given.

The recent bank suspensions and the unsatisfactory state of financial investments, have turned the attention of investors in the direction of real estate. Making every allowance for too sanguine anticipations, the outlook for the building trade is favorable, provided strikes and labor troubles can be avoided. Much, however, depends on the money market and the action of the loan companies. It is regarded as probable that some of the larger loan companies will shortly have to look for re-investments in the direction of loans on city real estate, though more caution and discrimination is likely to be exercised than has hitherto been the case.

The amalgamation of the Northern Railway with the Grand Trunk, is viewed approvingly by some of the lumber dealers, on the ground that it is likely to be helpful to the trade. There have been frequent complaints as to the difficulty of obtaining adequate shipping accommodation at points along the Northern. It is hoped that the change will result in the removal of this grievance.

Can any of your Toronto readers give any information regarding what has been done by the inspection committee of the lumber branch of the Board of Trade?

### NOTES.

—Messrs. Train & Son of Burk's Falls, Ont., are about to introduce the Electric light and run their mills night and day.

—John Forsyth, Pakenham, Ont., will commence to cut about the middle of April, and expects to cut about 400,000 or 500,000 feet.

—W. S. Ramsay & Co., of Sutton, Ont., write that their saw mill and sash and door factory are in full swing and have been so all winter, they having large orders on hand.

—A fire took place on the morning of Feb. 26th in James Shearer's lumber yard. The saw-mill was burned and loss to the amount of \$14,000 was sustained; covered by insurance.

—Messrs. J. S. Ainslie & Bros., Comber, Ont., manufactured 2,000,000 staves in their works last summer, nearly all of which were shipped to English markets. They employed about 60 hands.

—It is understood that G. A. Grier & Co., the big lumber firm of Ottawa, have sold their concern, limits, mills, etc., to Pierce & Co., of London, England, the price named being in the vicinity of a million and a quarter of dollars.

—The Chatham Wagon Company, of Chatham, Ont., have acquired a large tract of heavily timbered land near Thamesville, Ont., the timber upon which will be utilized for the purposes of their business.

—Reports from the vicinity of Doaktown, N. B., state that the weather has been cold and the winter a very favorable one for all kinds of work. The output of logs will be very good as the shoal snow enables lumbermen to gather up scattering logs which could not be got in deeper snow.

MANY fatal and destructive accidents would be prevented if those employing steam power in manufacturing took adequate precautions to see that their machinery was always in good order. The Boiler Inspection and Insurance Company of Canada, the card of which appears in another column, is an institution which should commend itself to all manufacturers.

—It is expected that a post office will be opened at the station at Hepworth, Ont. It will be a great accommodation to lumbermen. Lumbering operations were never so brisk before as they are at this point this year. It is estimated that the output of lumber will total 7,000,000 feet, and this will be supplemented by the usual immense quantities of timber, poles, ties and tan bark. Hepworth is said to down any inland station in Ontario in its output of forest products.

—It is estimated that Michigan railways used last year three and three-quarters millions of ties, amounting to 131,250,000 feet, and that they used lumber for piling, bridges, etc., to the extent of one-third the forgoing amount; and further, that at least one and one-half millions ties were sent out from the State. This heavy lumber consumption by the railroads should incline the railroad ear to the suggestion of the forestry convention held at Grand Rapids recently.

NORTH ONSLOW, ONT.—Mr. John O'Donnell has a gang of men at work cutting logs at Wilson's Lake. The timber is being hauled to Mr. P. Madden's mills.

MARTINVILLE, QUE.—Messrs. Cass Bros. are getting in a lot of saw logs. They are doing a large lumbering business this season.

**THE WILLIAM HAMILTON MFG. COMPANY OF PETERBOROUGH.**

In this issue of THE CANADA LUMBERMAN we would call special attention to the establishment of The Wm. Hamilton Manufacturing Co., of Peterboro', Ont. This company are entirely engaged in the manufacture of the highest class of saw mill machinery, also engines and boilers for saw mills. They have now been established in the above line over 30 years and their main study has been and is to have, besides their own improvements and patents, all the latest improved machinery in the market that will be profitable to the manufacturer of lumber.

They were the first to introduce the manufacture of hand mills in Canada and have spared neither time nor expense to have the best machine of the kind. Their first Band Mill has one column and as a proof of its merits we are shown a letter from J. M. Dollar, Esq., of the Ontario Lumber Company, Toronto, Ont. who has one of these mills, from which we quote an extract as follows:

Wm. Hamilton Mfg. Co.  
Gentlemen:—The band saw still continues to run well, there is no mistake about it. We have no trouble with it in any way. The make of the lumber is perfect, and it will cut large or small, sound, rotten, rough or any kind of logs. It is a pleasure to look at it. I don't know that we have the best band saw in the world, but none of the Americans that come around ever saw any better, so they say.  
Yours truly,  
J. M. DOLLAR,  
Manager Ontario Lumber Co.

They are also building a double column Band Saw Mill, patented by D. K. Allington, of East Saginaw, Mich., a cut of which can be seen on page 16 of this issue. Some of the specialties of this mill is the Double Column. By this device it gives a long shaft for the top wheel which takes away all side vibration. This top shaft is also bolted to the lower wheel shaft which keeps the top wheel from overrunning the lower wheel in entering the cut and preventing the breaking of the saw. Another very important feature is the roller guides. These are placed for the saw to run over at about 3/4" past the line of the top and bottom wheel when cutting; when gidding back these rollers move back and let the saw back from the log in place of throwing the log back on the carriage to clear the saw, also leaving the saw slack when not working and tightening it up when entering the cut. The top roller guide is moved up and down by a rack and pinion to suit the different sized logs to be cut, and the saw running over the rollers requires nothing in front of the roller between it and the log on carriage, thus avoiding all friction as on the other guides. This mill, all well fitted with heavy steel shafts and heavy iron lower wheel, weighs 24,000 lbs.

We would recommend any who are in want of band saw mills to give this Company a call. They have also a full assortment of patterns and have built a great many of the most improved heavy iron frame oscillating gang mills. We give a cut of the latest design of a small compensating balance gang which is patented by Wm. M. Wilkins, of the Stearns Mfg. Co., of Erie, Pa., for which they are the sole agents and manufacturers in Canada. It is taking the lead in the United States and Canada, requiring no heavy foundation but can be placed in themill as easily as a circular.

**LETTERS FROM CORRESPONDENTS.**

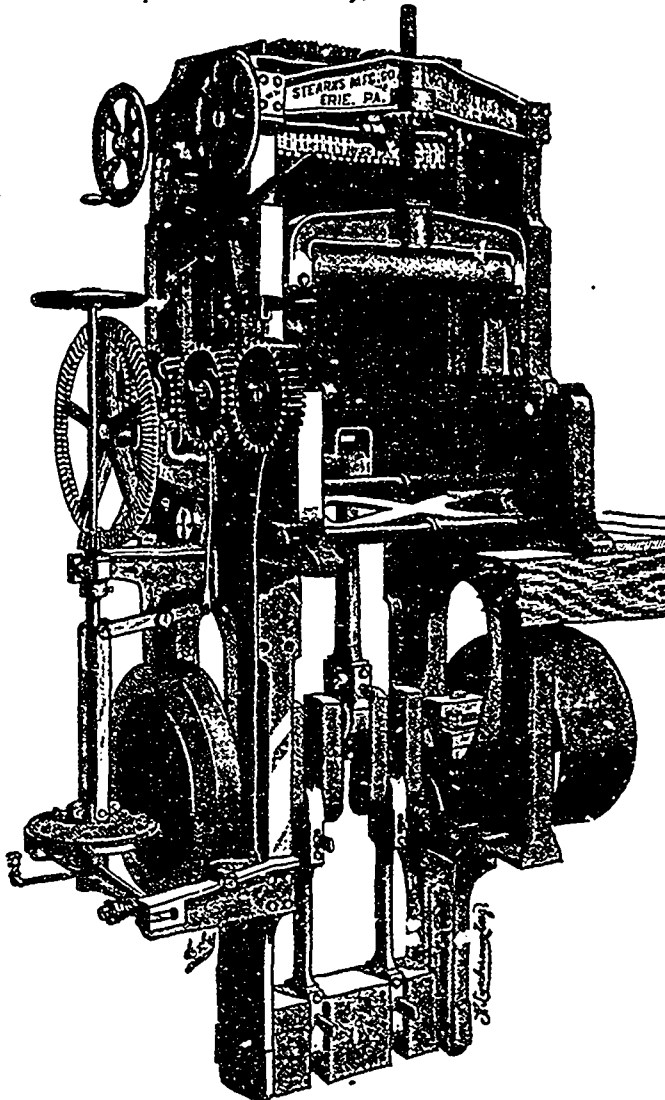
**What the Millmen are Doing Throughout the Country. Outlook for the Season's Operations.**

EASTMAN, Que., Feb. 27th.—Our cut of logs this winter will be about 4,000,000 ft., spruce and hemlock. Will commence sawing about April 1st. Prospects for coming season are good for fair prices on account of light log cut last winter. There is likely to be a shortage of logs in this vicinity this winter on account of heavy fall of snow. We will get out this winter 350 ft. of birch logs for clothes pins.  
Yours truly, ELDRIDGE, PHELPS & CO.

WIARTON, Ont., Feb. 18.—As this section of the country depends largely upon its timber, your correspondent being anxious to ascertain the probable output, interviewed the sawmill owners and timber dealers who make their headquarters here and secured the following figures as the result of their operations last year. Square timber, cedar, 2,100,000 feet valued at \$178,500; ties, 775,000 feet valued at \$175,000; paving, 400,000 pieces valued at \$32,000; telegraph poles, 30,000 valued at \$30,000; tanbark, 4,000 cords, \$16,000; shingles, 3,000,000 valued at \$5,400. As this comprises a comparatively small area, it will be seen that the timber industry is a very important one on the peninsula. This winter has been a very favorable one for shanting, and it is almost certain that the cut for the present year will be greater than last.  
Yours truly, LUMBER.

GORDON, Ont., Feb. 20.—The probable output of logs in the counties of Essex and Kent for the present season's cut is as follows:—In hardwood, to be manufactured into lumber at the different mills, I think between 25 and 30 million feet, including oak, ash, maple, sycamore, cottonwood and hickory. There is probably 45 to 50 million feet of elm logs put out in these two counties, being for export and home manufacture. I think there is a larger stock of logs put out this year than at any one time during the past ten years. Prices are fair, in some instances inclining downwards, while in others, a little higher, but of about same average as last year's prices. Business is good with a fair demand; seemingly a good many orders are already placed.  
THOMAS OUELLETTE.

WALKERTON, Ont., Feb. 24.—In this locality a very large amount of timber is being got out this season. This is caused, to some extent, by the shortage in last year's crops. So far, our stock of logs, consisting principally of maple, beech, birch, basswood, ash, hemlock, cedar, rock and soft elm, is very much larger than any previous year. We have also a large stock of logs, posts, ties and telegraph poles on the bank of the river Saugeen, fifty miles from our mill. When this is brought down we will have one of the largest stocks ever cut in this locality. We are at present running our mill night and day, having disposed of a large amount of hardwood for early shipment.  
Yours truly, R. TRUAN & CO.



FENELON FALLS, Ont., Feb. 20.—We cannot give you a detailed statement of cut till about the 15th of March. At present we have about two million feet of bill timber fit for bridges and all other capacity of bill timber; also four million feet of merchantable lumber. We will also have a quantity of spruce and hemlock timber. Our timber mill will commence operations on the opening of navigation. We will also be manufacturing a large quantity of shingles and lath.  
JOHN THOMSON & CO.

MONTREAL, Feb. 22.—I am getting out the present winter (which is a very favorable one for logging) say from five to six million feet of pine logs, with a little spruce. Our operations are confined to the River Rouge, a tributary of the Ottawa on the Quebec side, where good pine, as in many other places, is getting scarce. We make all the deals we can for the English or Quebec market, where most of our manufacturers have sold their next season's cut at good prices. The local market for common and cull lumber is good.  
Yours truly, J. K. WARD.

ALGOMA MILLS, Feb. 18.—We are cutting lumber only for the C. P. R. Company. At Sudbury, we expect to run till the 1st of April, H. F. Coburn supplying logs for us. Will probably take out about two million feet this season. We have five or six camps on C. P. R. limits at Algoma, taking out logs for the Company's mill there. Will probably take out seven or eight million feet at that point. The lumber operations here are confined to us this winter. A few miles down the Algoma Branch, Francis is taking out logs and board pine. Further down, the Spanish River Co. and the Boswell Co. are operating; Messrs. Cook Bros. are working on the French River; the Blind River Co. have shanties near Algoma Mills and on the Mississippi River. Messrs. Kloks have a big gang in Wells township, up on the Sault extension at Walmipitac on the main line. The Emery Co. and the Georgian Bay Co. are carrying on extensive operations. Cannot of course give you any idea of what work all these shanties are doing, but give you their names that you may get reports from them.  
Yours truly, H. P. SHAW.

OTTAWA, Feb. 8.—With reference to last season's cut I may say on the whole the season's output of lumber for my mill was very satisfactory—about 5,000,000 feet—the greater part of which was sold for about the price of lumber of the same description the previous year. Shingles, of which I cut about 3,000,000, were slow of sale, the market being overstocked in this locality, our stock now being about 2,000,000 still on hand. I am now engaged putting on to the ice about 7,000,000 feet of logs and long timber for dimension purposes, and should the snow not inconvenience operations, expect to put out about 9,000,000 feet. This is more than I can cut in one season with the mill in its present shape, but am obliged to cut as much as possible owing to the fires of last September having killed the timber on portions of my limits, all of which burnt timber I expect will be cut this winter. My limits are in the County of Hastings, on the York branch of the Madawaska River.  
Yours truly, WM. MASON.

GODERICH, Ont., Feb. 17.—I enclose one dollar in payment of the LUMBERMAN for 1888. Please change the address to Joseph Williams. There is a wonderful improvement in the LUMBERMAN of late. It is a real lumberman's paper now, and I consider very little, if anything, behind the best of the American publications.  
Yours truly, JOS. WILLIAMS.

TORONTO Feb., 25th.—During my absence last week in western Ontario selling lumber your valuable journal was received. I enclose my cheque for \$1; kindly place my name on your list of subscription for one year. The stocks in the western retail yards are very light. Dealers are more cheerful than a month ago. They anticipate a good trade for the coming season, and are placing their orders quite liberal. During my trip of five days I sold 40 cars. This is not bad for the time of year. The G. T. R. have reduced the freight from Sarnia to Petrolia to 3 1/2 cents per 100 pounds. The old rate was 5 cents. This will have the effect of reducing shipments from Gravenhurst to Petrolia unless better rates can be had than now exist, viz., 15 cents per 100 pounds. The stocks at Sarnia are not large. If the spring opens early very little lumber will be there at the opening of navigation. The mills on the line of the M. C. R. R. are well stocked with hardwood logs, and I learn the cut is mostly sold at fair prices to go to the States. There are several new mills building on this line, and if the duty is removed off lumber there would be a perfect "boom" among the hardwood men. There is very little of last season's cut remaining at the mills. Manufacturers handling seasoned lumber experience difficulty in supplying their wants, and have to resort to artificial drying.  
Yours truly, DRUMMER.

EAU CLAIRE, Ont., Feb. 28th.—There are three rafts of square and waney timber being taken out on the Amable Du Fond River this year, viz. Wm. Mackey, Booth & Hale and John Mackay, all fine rafts, Booth & Hale being of No. 3 (Wilkes township) sold at Ontario Government limit sale on 15th Dec. last. There is one saw mill at Eau Claire, a two-circular mill with fine water power, owned by Wm. Mackey, which was not run last season, although he had 3 to 4 million feet of logs at his mill; and it is not known whether it will be run this summer or not. There is a one circular mill a little east of Eau Claire on the line of the C. P. R., owned by John Mackay. He is taking his supply of logs (3 to 4 million feet) from a township down the Amable du Fond, and he intends to cut them at his mill this coming season. The drawing is well on in these parts; the winter has been very favorable, the snow being about three feet deep. It is expected that Eau Claire will be a busy station next year as the parties who bought limits in Petewawa at the late Government sale are putting in supplies from Mattawa this year, and it is thought they will use Eau Claire next year on account of its being the nearest point to their operations.  
Yours truly, OPERATOR.



### THE STURTEVANT PATENT PROGRESSIVE LUMBER DRY-KILN.

The accompanying cuts very clearly represent the construction and method of operation of the kiln and the apparatus required for it. The designer and builder of the apparatus has been before the public for over a quarter of a century as a manufacturer of blowers and heating apparatus. His extended experience, and a careful consideration of the wants of his customers, has enabled him to present to them, not only an apparatus which is unequalled, but in connection with it the complete drawings for a first class dry-kiln of any given capacity.

The principle which he has adopted is undeniably the best and only one that can secure satisfactory results. Every one is perfectly well aware of the necessity of the circulation of the heated air coming in contact with the lumber in the process of drying. The great question always is how to secure such circulation most cheaply and satisfactorily. Of all methods of generating currents of air, the most expensive is that of causing a movement by heating the air and thereby changing its density.

Changes in the condition of the atmosphere produce reversed currents, or worse still, sometimes prevent currents altogether, rendering for days such an apparatus ineffectual.

The action must be positive and this condition can only be secured by the use of a Fan for impelling the air. The objection has often been raised that it costs too much to run a Fan, but in connection with a heater it in reality costs nothing, for a heater must necessarily be used in connection with a kiln, and the exhaust from the engine can be entirely utilized in the heat. It is well known that exhaust steam has only three per cent less heat in it than live steam at 70 lbs. Hence the exhaust from the engine can be utilized in the heater in place of three per cent less live steam. Actually the engine cylinder is but an enlargement of the steam pipe on its way to the heater.

The first patent on B. F. Sturtevant's Steam Hot Blast Apparatus was issued about twenty years ago. Since that time the apparatus has been greatly improved both in efficiency and construction. The fact that over 5000 of the Sturtevant apparatus have been sold is sufficient evidence that he knows what the trade requires, and that he has succeeded in supplying it.

The apparatus here represented consists of a fan and heater placed side by side, making a very compact arrangement and occupying but little floor space.

The fan is known as the steel plate, and is the latest and most approved pattern, designed especially for handling large volumes of air with the expenditure of a minimum amount of power. Fans above fifteen feet in height are usually constructed with half brick and half steel housings and provided with horizontal steam engines. The advantage of a direct connected engine are evident: it does away with belts and pulleys, is independent of any other source of power, and can be run at any speed desired day and night.

The engines are directly connected to the Fans and are built in a superior manner and will show the best attainable economy. They are especially designed for this work. It must not be supposed that blowing engines are not, when properly adapted to their work, superior to the ordinary run of mill engines in point of strength and workmanship. They must be the heaviest, strongest and fastest engines that can be made. They must be made to stand twenty-four hours' work, six days in the week, frequently in the midst of dirt, and neglected by the engineer. They must be made to run without getting out of order at any speed, and, if possible, live longer and on harder fare than any other engines. Direct connected, or independent engines, either upright or horizontal, are furnished as the requirements of the case demand. The sizes vary from three to one hundred-horse power.

The heaters are made of the heaviest lap welded wrought iron pipe on improved patent sectional bases. These sectional bases vary in length, and the height and floor space of the heaters can be proportioned to any situation. The heaters are arranged for perfect circulation and drainage, and every square foot of heating surface is utilized. They are designed with special reference to the use of exhaust as well as of live steam. Each heater section is tested with 150 pounds hydraulic pressure and one hundred pounds steam pressure. The heaters are furnished with substantial wrought iron foundation, and are encased in a jacket of steel plate.

From careful experiment it has been demonstrated that a given quantity of pipe in one of the Sturtevant heaters will impart four to six times more heat units to a given quantity of air than will an equal amount of pipe arranged in the ordinary form. Single heaters vary in size from 300 to 20,000 lineal feet, and in design and style are proportioned to the situation and work to be performed.

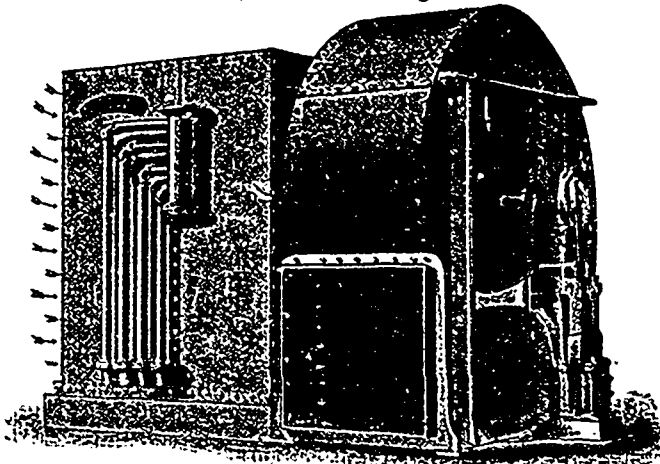
The Sturtevant kilns are arranged on either of two plans,

the apartment or the full length kiln. In the former rooms of any desired number are constructed to suit some particular size of lumber to be dried. Whether the lumber is piled lengthwise or crosswise of the apartment, the apparatus is so arranged that the air passes through the lumber lengthwise of the piling sticks, and dries it uniformly throughout. By this arrangement the lumber in any apartment may be seasoned to any extent, independently of that contained in another apartment, or the heat may be tempered to different degrees in the different rooms by the manipulation of dampers in the ducts and ventilators. The apartment plan offers advantages where limited quantities of different kinds and thicknesses of lumber are to be seasoned.

The "Sturtevant Progressive Lumber Dry-kiln" which is illustrated herewith is, however, the most popular form where large quantities are to be dried. This style may of course be constructed of various sizes, but the "Sturtevant Standard" is designed to meet the average conditions.

The Sturtevant Standard Kiln of this type is 85 feet long, 17 feet wide and 9 feet high, and will contain twelve cars, each car holding about 4000 feet of lumber. Two additional cars are required for each kiln for the loading and unloading platforms. The holding capacity of a Standard kiln is about 50,000 feet, and the daily drying capacity is about 8,000 to 12,000 feet, depending upon the nature and condition of the lumber. The lumber loaded upon cars, is run into the kiln on trucks, two or more cars each day, then slowly passes through against a constant current of air. In this manner the lumber is subjected to an even hot air draught, gradually increasing in intensity as the cars gradually advance to the hot end of the kiln. The difference in temperature between the two ends of the kiln varies from 70 to 100 degrees. The kiln should be provided with curtains at the top, bottom and sides, so that the hot air shall be forced through the lumber. The piling sticks for 1-inch lumber should be  $\frac{3}{4}$ -inch thick, and the lumber carefully piled on the car. In the kiln 17 feet wide, three rows of tracks are used, thus giving the lumber three independent supports.

Additional capacity is best secured by increasing the number of the rooms, instead of increasing the size.



The cuts show the apparatus located in a small room adjacent to the kiln, and it is advisable to locate the fan as near the dry room as possible. Where it is necessary, the hot air can be carried through several hundred feet of pipe when it is well protected. It is immaterial whether the hot blast is admitted at the top or bottom of the dry kiln, although it is usually admitted at the bottom. The ventilation is always at the bottom.

Green and air dried lumber, dense and porous lumber, lumber of different thicknesses, all require different treatment; for instance, Southern Yellow Pine, when cut green from the log, will stand a very high temperature—say 200 degrees F.—and, in fact, this high temperature is necessary, together with the rapid circulation of a large volume of air, in order to neutralize the acidity of the pitch, which causes the lumber to blue and discolor. The treatment of oak, walnut and hickory, and dense lumber of this nature, calls for a large amount of air at a lower temperature; otherwise the lumber would dry too rapidly upon the outside, the pores close, and the lumber becomes honeycombed and checked. Again, air dried oak and walnut calls for the use of the return duct or its equivalent, the sweating process, in order to open the pores and soften the outside of the timber, so that the moisture can work its way out to the surface. The Sturtevant process meets the requirements of every case; as by the use of the steam Fan, a greater or less quantity of air can be admitted into the dry room, and the temperature can be perfectly regulated.

The apparatus may be applied with advantage to ordinary dry kilns where steam pipes are used in the bottom, in which case smaller heaters are required. In dry kilns thus heated without forced circulation, the application of a fan has increased

the capacity 50 per cent. It is even more important to have perfect circulation, which only a fan can give, than a faultless heating apparatus; for the best heating apparatus, without such circulation, may give the poorest results. The want of circulation in ordinary dry-kilns causes the lumber to blue and discolor.

Attention has already been called to the fact that the fans can be driven either by a belt or by a direct connected engine. Important advantages are gained by the use of the steam fan, enabling the temperature and volume of air to be controlled at all times, and causing the drying operation to be continuous. By the use of a steam fan, the temperature can be raised gradually and maintained at a uniform safe degree, until the process of seasoning is complete. Sudden and marked changes of temperature in the kiln are fruitful sources of warping, checking, case-hardening, etc. If the drying apparatus is operated but twelve hours in the twenty-four, and the kiln is allowed to cool down in the night, then the time of drying will be more than doubled, as several hours are lost in the morning in heating the kiln up to the temperature of the night before. The Sturtevant heaters are designed with special reference to using exhaust steam in the day time from the engine and live steam at night.

Experiment shows that the air does not become saturated with moisture and rendered incapable of further use in passing through the lumber once; but that it may be passed over the lumber many times before becoming saturated. The effect of the return duct is not only to increase the temperature of the air; but its relative humidity is changed so continuously and gradually, that warping, checking and case-hardening are entirely prevented, a result which is practically impossible with other systems of drying. This is a result which other processes have endeavored to effect by means of a steam jet which is introduced into the dry room in the early stages of drying. In rare instances, where the lumber to be seasoned is air dried and does not contain a great amount of moisture to effect the sweating and opening of pores, the steaming room is recommended.

The apparatus is especially designed for utilizing the exhaust steam from the main engine, and where it may be desirable, live steam can be used in the heater at night. The exhaust steam from the engine which drives the fan is also utilized in the heater. Of course it is well understood that there is no cheaper artificial medium for drying lumber than exhaust steam.

All kinds and thicknesses of lumber cannot be dried at the same time; but as each require different treatment, it follows that different periods of time are required. One inch air dried lumber (by air dried is meant lumber that has stood out from three to six months) can be seasoned in from 36 to 60 hours, while perfectly green inch lumber calls for from three to six days and lumber of different thickness in like proportion.

One of the greatest advantages which the Sturtevant system offers is freedom from fire risk. The steam pipes are encased in a steel jacket, and placed in an apartment distinct from the dry room, and do not come in contact with any wood work whatever. No pipe whatever is used in the dry room. Parties who are using this kiln are getting a less rate of insurance upon the kiln than upon the mill itself. The ordinary dry-kilns with steam pipe in the bottom are fire traps; and, where it is possible to insure them at all, they are considered a very hazardous risk. Annoyance from steam pipes leaking and freezing is also obviated.

This process offers, not only the most efficient lumber dryer, but the most essential feature of combining cheapness of first cost with low running expense. It also affords the still further advantage of being portable; and, like any other machine in the mill, can be moved from point to point with no other expense than the erection of a new building.

This house is prepared to fit our complete dry-kilns of all descriptions, furnishing the engines, boilers, entire heating apparatus, rails, trucks, complete working drawing for building the kiln, in fact everything pertaining to the perfect drying of lumber. Parties are invited to send to B. F. Sturtevant, Boston, Mass., for the "Illustrated Catalogue of B. F. Sturtevant's Steam Hot Blast Drying and Heating Apparatus," which contains full descriptions of the apparatus and method of application.

—Baltic timber is likely to be scarce this season, and sellers are reluctant to quote prices until the market has become somewhat more settled, while, on the other hand, buyers eagerly contract for all parcels offered them at a slight increase on last springs prices.

—The lumber firm of Allison, Cousland & Hamilton of Glasgow has ceased to exist, Mr. Robert Hamilton having retired from it for the purpose of carrying on business under the style of Robert Hamilton & Co., while Messrs Allison and Cousland continue in business together under the name of Allison, Cousland & Co.

**LUMBERMEN IN THE LEGISLATURE.**

**How the Industry is Represented in the Ontario House.**

Ever since the organization of the Ontario Legislature, the lumber interest has been well and ably represented in its membership, as is only reasonable in the case of so important an industry and one from which so large a share of the public revenue is derived. Latterly questions affecting the trade have not been so prominent as during the earlier years of Confederation, and the more recent struggle over the Rivers and Streams bill, but though the lumbermen of the present House may be less conspicuously brought under the public attention than formerly, they are none the less an important and useful factor in legislation.

The member most extensively engaged in the lumber trade is Mr. Erskine H. Bronson, of the firm of Bronson & Weston. Mr. Bronson is a new member of the House, having been first returned for Ottawa at the general election of 1886. He is an American by birth but has been a resident in Ottawa for many years. His father H. T. Bronson in the year 1853 manufactured the first lumber cut in Ottawa for the American market, and since that period the Bronsons have been continuously engaged in the business. Mr. E. H. Bronson has been actively identified with the industry for about twenty years. The firm own extensive mills at the Chaudiere, and are among the largest limit-holders in the country. They operate on about half a dozen of the tributaries of the Ottawa River, and their total output amounts to about 55,000,000 feet per year. Mr. Bronson has always taken an active part in public affairs, having been a member of the Ottawa city council for seven years and occupied a seat at the School Board for twice that period. He contested Carleton for the Commons in 1882, but was unsuccessful. His return as a supporter of the Mowat government for Ottawa, a constituency previously supposed to be a forlorn hope, was one of the most remarkable features of the contest of '86. Mr. Bronson's long municipal and business experience make him a valuable acquisition to the House. He expresses himself satisfied with the present timber policy of the administration. He is in favor of unrestricted free trade as between Canada and the United States, but opposed to Commercial Union, that is any arrangement which would give the Americans power to regulate our tariff as against other nations. Mr. Bronson is a member of the special committee asked for by Mr. Meredith's motion respecting timber preservation and mineral development. He occupies a seat at the end of the first row of government benches.

Immediately next to Mr. Bronson sits Mr. Thomas Murray, of North Renfrew. Mr. Murray is a veteran politician on the Liberal side, and a representative Irish-Canadian. He was first returned to the Provincial legislature in 1869, since which he has fought several hard contests with varying success in both Dominion and local elections. He has represented North Renfrew almost constantly since '79. Mr. Murray is a member of the firm of T. & W. Murray, whose headquarters are at Pembroke. In addition to mercantile business they are largely interested in lumbering, owning and operating limits on Black River, on the Northern side of the Ottawa. They purchased at the late government timber sale berth No. 1, in Biggar township, one of the most valuable sold, and intend to operate there next season. Mr. Murray has been engaged in lumbering more or less during the last twenty years, and has a thorough practical acquaintance with the industry in all its phases. Last session he introduced the bill for the better regulation of mixed drives, which became law and has proved a useful measure.

Another legislator and lumberman of long standing on the government side of the House is Mr. Robert Adam Lyon, of East Algoma, a Scotchman by birth but a resident in Canada since boyhood. Mr. Lyon resides at Michael's Bay, on the south side of Manitoulin Island. He is manager of the Michael's Bay Lumber Co., which has from \$100,000 to \$150,000 invested in lumbering on Manitoulin. They ship a large amount of cedar to Chicago in addition to manufacturing pine lumber for the Canadian market. The annual output of lumber is from 2,000,000 to 3,000,000 feet of sawn pine, 200,000 ties, 200,000 block paving posts and 10,000 telegraph poles. Mr. Lyon was first returned for Algoma in '78, and since the constituency was divided he has represented the Eastern riding. Before the extension of the railway system Mr. Lyon was obliged annually to make a journey of 300 miles on snow-shoes, in order to reach the nearest point of railroad connection which would bring him to Toronto, and regularly undertook his long tramp every winter for eight years. Mr. Lyon states that the supply of timber at Michael's Bay is nearly exhausted, owing more, however, to the ravages of fire than to any other cause. His view is that the soundest economy which could be pursued by the government would be to sell the timber as rapidly as possible, invest the money and let the lumbermen take measures to protect their property from fire.

In case this is not done he favors stricter means for protecting the forests from destruction by bush fires.

Mr. James Clancy, of West Kent, occupies a seat about midway down the front row of the opposite benches. He has been operating in Kent since 1879, in getting out hardwood timber for the American and Quebec markets, but the supply in that section is now practically exhausted. Oak and walnut were lately shipped in large quantities from Kent, but little hardwood timber of a merchantable character remains except elm and hickory. Mr. Clancy's other interests now occupy most of his attention.

Mr. James Rayside who represents Glengarry, and, as it is almost superfluous to add, is a Scotch-Canadian, is an extensive sawmill proprietor and lumber operator. He was until lately a member of the firm of McArthur & Rayside, who owned a mill at Lancaster, in addition one at Coteau Station, at the junction of the Canada Atlantic and Grand Trunk. On the dissolution of the company one year ago, Mr. Rayside retained the Coteau mill. The output is from 2,000,000 to 3,000,000 feet, principally basswood and ash. Mr. Rayside also supplies the mills up the line of Canada Atlantic.

There are few if any members of the Provincial Legislature who have had a wider or more varied knowledge of public and commercial affairs than Col. Alpheus F. Wood, of North Hastings. He sits well up in the second row on the Conservative side. Col. Wood was for many years engaged in lumbering, and owned a saw mill in Trevear, Hastings county. He was reeve of Madoc for 19 years, and warden of the county of Hastings for a term of ten years, in addition to holding other responsible positions. Col. Wood is a brother of Hon. S. Casey Wood, formerly provincial treasurer. He is president of the recently organized Hastings Lumber Manufacturing Co., the headquarters of which is at Madoc. In addition to purchasing logs and manufacturing lumber, the company buys lumber manufactured by portable engines, which reach many localities that are not served by stationary saw mills. They will operate extensively in the Northern portion of the County of Hastings. Col. Wood regards the policy of the administration in regard to the timber as a mistaken one in some respects. He thinks that the House should be consulted before timber limits are disposed of, and regards the increased prices received at the recent timber sales as an evidence that greater caution in disposing of so valuable a source of revenue should be exercised. Even were the government in want of money, he considers that it might be good economy to borrow rather than to part with timber cutting privileges likely to increase enormously in value before many years. Apart from this the most important change in the system, he thinks, would be the adoption of some system whereby the timber upon many thousands of acres which have been burned over might be saved. The lumber injured by fire in this manner is not sufficiently valuable to make it worth while for the lumbermen to pay full due upon it and float it to market. Col. Wood's opinion is that there should be some provision by which this partly damaged timber, not valuable to the licensee, should pass into the hands of the settler at a low figure, other wise it will soon become absolutely worthless. Local saw mills should have greater facilities than at present. Col. Wood is a member of the Committee proposed by Mr. Meredith, to enquire into forest preservation and mineral development, and should the resolution carry his practical experience in lumbering operations will prove of invaluable service. Though not a brilliant speaker, he is undoubtedly one of the most useful members of the House, and whenever he speaks it is directly to the point and he is consequently always listened to attentively.

Orson J. Phelps, of Centre Simcoe, is the oldest lumberman in the Legislature, having been engaged in the industry for 35 years. Mr. Phelps is an American but came to Canada while quite young. He served as a volunteer in the rebellion of 1837. Mr. Phelps has filled numerous municipal offices, and in 1881 was warden of the County of Simcoe. He was first returned for the Legislature for West Simcoe in 1883, and was chosen for his present constituency at the last general election. He is a member of the lumbering firm of N. & O. J. Phelps, who some eighteen years ago purchased extensive timber limits and real estate in Simcoe county, and have since that time carried on an extensive business in lumber manufacturing. They have two mills, one at Phelpston, in the township of Flos, Simcoe county, and the other at Merritton, on the Welland Canal. Their output of lumber amounts to between 5,000,000 and 6,000,000 feet per year. In politics Mr. Phelps is a Liberal. He approves of the government's timber policy. He does not think it is possible to preserve the timber effectively from fire, holding that with the advance of settlement the danger must be an ever-increasing one, and that the best thing to be done is to realize on the timber as quickly as possible and let limit-holders take their chances. He is disposed, however, to favor a stringent law imposing a fine upon all campers who do not extinguish their fires. Mr.

Phelps does not favor Commercial Union, regarding the scheme now advocated by Erastus Wiman as an impossible one. He would like to see reciprocity in natural products, but regards the prospect as visionary, because the Americans would never be disposed to grant it. Mr. Phelps expects shortly to retire from active lumbering operations, as the supply in the neighborhood of his Simcoe mill is about exhausted.

Mr. James Connee, of West Algoma, who has been a member of the House since 1885, is extensively engaged in lumbering operations in that territory. He is an ardent Liberal and a ready, fluent speaker. Among others who are or have been lumbermen, though also engaged in other pursuits, are Mr. William Lees, of South Lanark, a farmer and mill owner; Mr. Isaac James Gould, of North Ontario, who is also engaged in agriculture and milling; and Mr. John Fell, of East Victoria, who was for about sixteen years operating at Fenelon Falls, but gave up the business some two years since.

**The Wood Trade in Germany.**

According to a Berlin report an enormous trade was done during the year 1886 in wood for building purposes and in building material. Very large quantities of wood had been imported in 1885, before the raised customs duties came into force, and large additional importations of foreign wood added to the stock on hand. At the beginning of 1886 the prices were consequently low, but very soon all this changed, for never before has there been a year in which so many new buildings were constructed. An unexampled activity prevailed at Berlin, Hamburg, Kiel, Cologne, Munich, and numerous towns in Baden, &c., and the almost innumerable saw mills of Germany were so fully occupied that they could hardly supply the demand. Kiel alone imported no less than 104,000 cubic metres of wood, worth four million marks. At the close of the third quarter of the year nearly the whole of the immense stock had been used up. But wood was not only in demand for building purposes, a great deal was required for railway sleepers, and more particular for cask staves, on account of the exceptionally large production of spirits, the wood for these cask staves is imported from Hungary. In consequence of the unusual demand the sales of wood from the State forests yielded handsome results, the prices realised having exceeded the limits of the sale prices by 5 to 10 per cent. At the close of 1886 there was still the greatest activity prevailing, the saw mills being fully and uninterruptedly occupied. Many forests in the interior, hitherto inaccessible to trade, have been utilized by the making of good roads and by laying down temporary rails; saw mills have been constructed in the midst of forests, where the boards are now being prepared ready for use, all of which naturally saves time and money. It is quite expected that it will be found at the end of the year 1887 that it rivals its predecessors in the way of building operations, which, if piece only continues to reign, will subsequently take still grander proportions. The tile and cement factories of Germany display, of course, an equal amount of activity, and prices become gradually very remunerative. Of cement, Germany exported very considerable quantities in 1886, which, in consequence of the low sea freights, rose to no less than 3,659,915 double centners. America and the Indies are vast consumers of German cement. The lime and mortar works likewise did a very good business.—*The Chamber of Commerce Journal.*

**Canadian Shipments.**

The Ottawa district of Canada is by far the largest and most important shipping point for the lumber of the Dominion, and the following figures corroborate the statistics heretofore published as to the extent of Canadian shipments, and show that the exports to the United States for 1887 did not exceed the average for the past ten years, viz., 500,000,000 feet. The average value of the lumber shipped in 1887 was \$13.17 at the ports of shipment, so far as the Ottawa district was concerned.

We are under obligations to the United States Consul at Ottawa for the following figures:

Total exports of sawed pine lumber to the United States from the Ottawa Valley district for the calendar year of 1887 as declared through the following consulates.

	Feet.	Value.	All other wood products value.
Ottawa	182,847,633	\$2,628,444.45	\$155,459
Greenville.....	39,693,339	263,393.21	30,466
Prescott	9,497,863	116,513.23	4,192
Brockville .....	36,747,472	429,679.64	33,152
	260,786,307	\$3,438,036.53	\$223,299

Of the above 33,648,348 feet, value, \$610,796, was exported in bond for re-exportation.

Negotiations are said to be in progress by which the creditors of R. J. Stewart propose to buy out the lumber mills, limits, etc., of Grier & Co., of Ottawa, which are said to be worth in the neighborhood of one million dollars.

## THE NEWS.

—J. R. Warrens has started a new shingle mill at Colden, Ont.

—Chattanooga Tenn. saw mills, cut 42,000,000 feet of lumber last year.

—In the district about Kimmount there are 3,000 men at work in the woods.

—About 170,000,000 feet of logs remain in the Menominee above the lower dam.

—Richard Nagle has 720 square miles of timber limits on the Kippewa in the market.

—Thirty inches of snow on the Kippewa interferes greatly with lumbering operations.

—Richard Bell, of Glenwilliams, Ont., fractured his leg when teaming logs in the bush lately.

—At the annual sale at the Nassau mills, Peterboro, over 1,000,000 feet of lumber was sold.

—Messrs. Gilmour & Co. are building a large sash, door and blind factory, at Trenton, Ont.

—Messrs. Mason & Morgan, Springbrook, Ont., have put in operation their new shingle mill.

—John Smith, of Marmoria, had his leg broken by a falling tree while chopping in a cedar swamp.

—Edward Beauoi, of Wallaceburg, Ont., has been killed by a falling branch when sawing down a tree.

—H. F. McLoughlin, of Arnprior, Ont., has bought a timber limit near Papineauville, Que., on which he will build a saw mill.

—Mr. J. C. Bedard, Hardwood Hill, near Sherbrooke, Que., has finished his new steam saw mill and put it in operation.

—Over 60,000,000 feet of lumber, 35,000,000 shingles, and 25,000,000 lath, were handled at St. Joseph, Mo., during 1887.

—Col. Talbot, the pioneer who cut the first tree where London, Canada, now stands, is 90 years of age, but still hale and hearty.

—Mr. Stearns' steam mill at Lake Megantic, where he had about 40 men employed taking out pulp wood, was recently burned.

—Mr. Raymond, Mitchell's Bay, Ont., will rebuild his lumber mill and also add machinery for the manufacture of staves.

—Messrs. Hamilton Bros., lumber merchants of Ottawa, are operating near Desert and have to send supplies by team 100 miles from Ottawa.

—Messrs. Wait & Spear have completed their siding on the C. P. R. near Wood Station, Ont. and are getting out ties, cedar posts and cordwood.

—Mr. James Drake, Selkirk, Man., is moving his saw mills from that town to Broken Head River, on Lake Winnipeg, and will manufacture oak lumber principally.

—Mr. W. H. Murray, Indian town, N.B., is building an addition to his lumber mill, in which he will place machinery for the manufacture of staves and clapboards.

—The cut in the woods this winter on the upper Ottawa, will be large. In the camp of Louis Carisse alone 32,500 logs and 425 pieces of square timber were cut this winter.

—Messrs. N. L. Todd & Co., St. Margaret's Bay, N.B., have one of the largest and finest saw mills in the Province, having capacity to cut 8,000,000 feet of lumber a year.

—There are in California, Washington and Oregon 190 sawmills, employing over 3,000 men, without counting the crews of the many vessels engaged in freighting lumber.

—Mr. R. White, lumber merchant of Ottawa, has recently sold, on bank account, some \$100,000 worth of timber, held by the Bank Nationale. It is understood that good prices were obtained.

—Last year, 1887, the Flint and Pere Marquette hauled 215,291,134 feet of logs, the Detroit, Bay City and Alpena an amount nearly as great, and the Mackinac Division of the Michigan Central hauled 148,000,000 feet.

—Messrs. Bronson, Weston & Co., lumber merchants of Ottawa, have disposed of 5,000,000 feet of lumber to the Export Lumber Co., of Montreal, for shipment to South America, for which upwards of \$75,000 was realized.

—During 1887 there was received at the Port of New York the enormous quantity of 220,599,289 feet of Southern Yellow Pine. This is an increase of nearly thirty per cent. over 1886, or, to be exact, 66,060,469 feet and an increase over 1885 of 91,409,854 feet. The greater part of this lumber went into consumption in this city and its immediate vicinity.

—The largest cut on the Saginaw River was in 1882, when the mills cut 1,012,000,000 feet. The estimated cut for 1887 is 700,000,000, which is the smallest cut since 1878, and the probabilities are that it will never be increased.

—The tariff of rates to be charged by the Rouge Boom Co. for 1888 has been fixed by the Privy Council as follows:—Pine logs, 5 cents per piece; spruce logs, 2 cents; round timber, 5 cents; square timber, 10 cents; railway ties, 1 cent.

—Mr. Wm. Sutton, of Walkerton, Ont., is the owner of an extensive saw mill plant located at Cowichan, Vancouver Island, B.C., which has a capacity to cut from 15,000,000 to 20,000,000 feet of lumber a year, and which has been idle for about two years.

Some heavy transactions have recently taken place in the Quebec timber market, Messrs. McArthur Bros., W. & J. Sharples & Dobell, Beckett & Co., being the principal purchasers to the extent of about \$7,000,000. Very little spruce remains in the hands of manufacturers.

—The Americans are waking up to the necessity of preserving what is left of their forests. Congressman White, of New York, has introduced a bill containing stringent provisions for the protection of the public forests, and also for setting aside timber land to be reserved as perpetual forests.

—Mr. Yates Ferguson, of Almonte, has a curiosity in the shape of a limb of an ironwood tree, on which two twigs, on opposite sides, having grown out and upward a distance of about twenty inches when they decided to enter the tree at points directly opposite to each other, forming a loop on either sides.

—While two men named Narcisse Fournier and Joseph Leclaire were engaged felling trees in Gilmour & Co.'s limits, in the township of Bethune, the tree they were felling struck a dry one close by which caused part of it to fall in an opposite direction, instantly killing Fournier and badly injuring Leclaire.

—The repairs and improvements to the Saginaw river mills which are in progress or in contemplation at this time, pre-empt activity in the manufacture of the pine product in the season of 1888. Besides improvements, very material additional capacity is announced as being introduced to some of the mills.

—The Ottawa Government has received valuable information from the director of a government survey on the Spellmuncher River, B. C., concerning this new district. The soil is rich, game and fish plenty and the timber is reported as very large, much of it too large to handle, one hundred feet being the ordinary length of logs.

—A chestnut at the foot of Mount Aetna is believed to be the largest and the oldest tree in Europe. It is hollow and large enough to admit two carriages driving abreast to pass through it. The main trunk has a circumference of 212 feet. This grizzly giant is said to measure 92 feet in height. That certainly is a "regular old chestnut."

—Quite extensive lumber operations are being carried on for Messrs. A. L. Wright and A. J. Babang of Moncton, N. B., whose mill is at Little River. Charles McAnulty, who has leased the mill at Albert from Jardine & Co. of St. John, has already contracted with parties to put in about 1,000,000 of lumber for sawing next season.

—Reports from the Lake Superior region in the U.S., state that the depth of snow is proving a serious drawback to lumbering operations. Most of the camp near Bayfield, Wis., have been abandoned. Logging is very slow and expensive in the neighborhood of Marquette, Mich. Four feet of snow is reported at Ashland, Mich.

—The proportion of water held by different woods varies greatly. According to Scheubler and Hartig, freshly-cut horn-beam contains 18.6 per cent. of water; willow, 26 per cent; ash, 28.7 per cent; birch, 30.8 per cent; oak, 34.7 per cent; pine, 39.7 per cent; red beech, 39.7 per cent; larch, 48.6 per cent; and white poplar, 50.6 per cent.

—The finest collection of maple logs ever brought to Lucknow, Ont., may now be seen at Mitchell Bros. saw mill, and which are being manufactured into "rollers" 27 inches in length for shipment to the Old Country. Messrs. McDonald have also received a large consignment of very fine logs, both hard and soft wood, for the manufacture of lumber.

—As an evidence of the prosperous condition of Southern mill men and wood-workers generally, it is stated that 90 per cent. of the sales of saw mill and wood-working machinery in that section during the past year, have been on a cash basis. Five or six years ago nearly all such sales were made on credit. This state of affairs is taken as conclusive evidence that the Southern states are making profitable progress in the lumber and wood-working business, and at the same time as a result of purchasing improved machinery turning out a better class of lumber products than ever before.

—Messrs. Jas. R. Donnel and H. C. Stabler have purchased the planing mill business formerly conducted by Messrs. Kincaid & McWilliams, Peterborough, and have taken possession. The new proprietors are both practical men of long experience in the business; they are also pushing, and we have no doubt that they will secure a fair share of the trade in their line.

—The consumption of lumber in Chicago is estimated to reach 600,000,000 per annum. The receipts of lumber in Chicago the past year reached 2,493,050,592 feet, which allowing for the local consumption would make the shipments exceed 1,800,000,000 feet. The receipts of lumber in Chicago the past year exceeded those of the preceding year by 137,744,210.

—Cypress lumber has entered more largely into consumption during the last five years than ever known before. This fact is partly owing to the advance in the prices of Northern timber and lumber, but more especially to the facts that the merits of cypress lumber are just beginning to be found out. A considerable advance in the price of this material is predicted.

—The cut of the Saginaw river mills in 1887 aggregating 779,661,265 feet pine and hardwood, considerably exceeds early estimates, and shows that while the capacity of the river has been reduced 100,000,000 feet in two years, there has been but a slight decrease in production. It was only 19,000,000 feet less than 1886, and exceeds the cut of 1885 about 51,000,000 feet.

—An appropriation of \$200,000, made by the state of Minnesota for the payment of forestry improvements, has been exhausted, and a portion of the accounts will have to remain over unpaid for a year. The bounty is \$3 for every acre of cultivated forest, the tax to meet it being one-tenth mill. During the past two years, over 13,000 acres of forest trees have been planted in Minnesota.

—A resolution was recently adopted by the United States senate, directing the Secretary of the Interior to report a plan of legislation for the disposition of the public timber lands so as to secure the preservation of the national forest lands at the headwaters of navigable rivers, and so make it a right of settlers, attainable by legal means, that they shall provide themselves with timber for building their homes.

—The contracts for clearing lands at Vancouver, which was the cause of so much trouble early last year on the account of the employment of Chinese, is only about one-third finished. There are altogether 400 acres to be cleared, and the cost of the same will total about \$80,000. Contractor McDougall states that during the past month, owing to the cold and disagreeable weather, only nine days were put in by his force.

—Hon. M. Engelmann, of Manistee Mich., president of the Manistee salt and lumber company, is dead. He was a self-made man and a prominent and public-spirited citizen. He began life by working in the woods, and after his first start in business met with serious reverses but finally overcome his adverse circumstances by his energy and determination, and realized a large fortune. He leaves a widow and seven children.

—Mr. Samuel Gray, Victoria, B.C., is the proprietor of a large establishment employed in the manufacture of sash, doors, mantels, mouldings, hand rails, newel posts, etc. He is the patentee and manufacturer of an improved self-supporting stairs, in which is embraced a stair, elevator, light shaft and ventilator, a unique contrivance for economizing room, and in the sale of which he is doing a prosperous business in Oregon and California.

—The Ottawa Auxiliary Bible Society are prosecuting mission work among the lumber shanties. Four colporteurs were appointed for the Ottawa district, J. L. McCullough to the Gatineau, A. Toshack to Desmoines and Black River, J. B. Terrant to the Bonnechere and Petewawa, and A. Stewart to Madawaska and Mississippi. Four missionaries Messrs. McKechney, Somerville, Hewitt and Ellis were appointed to work in the Nipissing District.

—A continued improvement in the demand for American walnut is reported at London, Eng. The stock of logs is said to be somewhat light, but lumber is in good supply, and recent arrivals are said to have shown an improvement in manufacture, indicating that shippers are reaching a better understanding of the requirements of the trade. Choice planks and boards have gone off freely, and it is believed good stuff will find ready sale at full prices.

—Prospects for a good output of lumber on the Gatineau are not as good as was anticipated at the beginning of the season. There was too little snow in the early part of the winter and considerably too much latterly, so much so that work was much impeded. The lumbermen as it happened put unusually heavy gangs into the bush and by dint of large numbers will be able to make the cut sufficient to keep them sawing most of the summer, but they will not have any surplus logs.

—John Barclay, lumber dealer, Springfield, has assigned.

—G. A. Grier & Co., lumbermen of Ottawa, have sold out.

—Seringeour & Rennock, who have been operating a planing mill at Stratford, Ont., have assigned.

—The Ontario Lumbermen's Association lately raised the price of bill stuff on Georgian Bay from \$9 to \$10.

—American lumbermen are invading the leading lumber centres in Canada, purchasing stock for the American markets.

—Wm. Attig has disposed of his property near Milverton, Ont., and purchased the Pasmore & Whaley saw mill at that place. He will commence sawing about the 1st inst.

—Jos. Kidd & Sons, of Dublin, Ont., have failed to make a compromise with their creditors, and the stock was sold by the sheriff some days ago. Geo. Kidd talks of going to British Columbia.

—The firm of Humphries, Richardson & Humphries, who have run a planing mill at St. Marys, Ont., for a number of years, have decided to go out of the business on account of lack of patronage.

—The Young's Point, Ont. saw mills are running full time. Mr. C. Young has received the contract for supplying the material for the lock gates coffer dam and bulk-head.

—It is said that the cut of logs in the Kippawa district this winter will be unusually large, and that it is nearly all of the best class of timber. A great deal now depends on the water supply. If the thaw is gradual the logs may be expected to reach the mills in good shape.

—The lumber stock at Albany aggregated 90,602,000 feet, about 6,000,000 feet less than the quantity on hand a year ago.

—Messrs Kearns & Marshall, of Brockville, Ont., have disposed of their lumber business at that place to the Rathbun Co. Mr. Calquhoun, late of Gananoque, has been placed in charge.

—Messrs. Gilmour & Co. have a large force of men at work building an extensive wharf on the Gatineau river near Alonzo Wright's residence. Mr. Gilmour has invented a slide by which he can run his lumber from his mills to the new wharf and the river has been made navigable for steamers up to the wharf so that the new construction will very materially improve his shipping facilities.

—A general survey of lumbering operations in the Bonnechere Valley clearly indicates a very large cut—especially by the McLachlin Bros., the kings of the Bonnechere—and this amid the serious drawbacks of a scarcity of oaks in the districts naturally supplying this valley; but the North-West has been drawn upon, and farmers who have not sold will find themselves considerably out.

—A sale has been made of five million feet of lumber by a Montreal firm at about \$15 per thousand. The lumber is intended for shipment to South America. The price of lumber shows an upward tendency and a good export demand is expected in the spring. The cut this winter in the woods will probably be much larger than last year, and if the drive is successful there will be no scarcity of logs next summer and fall.

—Mr. J. Lambert, of Ottawa, has contracted with the following gentlemen for a supply of ash timber for a Montreal firm, its destination being Liverpool, England. Messrs. James Mulligan, Aylmer, 300 pieces; W. & R. Allen, 150 pieces; J. Fulford, Aylmer road, 70 pieces; Wm. McConnell, Aylmer road, 100 pieces; D. Irwin, Eardly, 100. This timber is to be all of A1 quality, and will be delivered at the nearest station along the line of the C. P. R. and P. P. J. railway.

—Michigan lumberers have been working this season under difficulties owing to the unfrozen condition of the swamps. In some cases they set to work and built corduroy roads along the swamps, and then "snowed" them by a free use of shovels and baskets, thus enabling them to transport their logs from the skidways to the banking grounds, and thereby relieving the skidways from their immense loads, under which they were pressed excessively, and then the work of skidding was proceeded with.

—Representative Rice of Minnesota, has introduced a bill amending the statute so as to admit into the United States free of duty the produce of the forests on the Rainy Lake River and the Lake of the Woods and their tributaries, owned by American citizens, and sawed in the province of Ontario and Manitoba by American citizens, the same being in part manufactured. He also introduced a bill constituting three collection districts in Minnesota, and providing for the appointment of a collector at St. Paul.

—The total shipments of lumber from Portland, Oregon, to the Argentine Republic and Uruguay for the year 1887, were 43,587,630 feet. Of this, 37,108,493 feet were spruce, 5,980,947 feet pine, and 498,190 feet of various kinds, mostly hardwood. The great bulk of this lumber, 40,740,552 feet, went

to port in Argentine Republic, mainly to Buenos Ayers, while to ports in Uruguay only 2,847,078 feet were exported. This lumber trade gives employment to 65 vessels, the largest single cargo being that of the ship Euphemia, 1,118,253 feet, in July last. The value of these shipments was about \$700,000.

—A big lumber deal is pending at the Chaudiere. The creditors of Mr. R. J. Stewart, the well-known lumberman, with a view to hastening a settlement have made Mr. G. A. Grier, of the firm of Stewart & Grier, an offer for the purchase of Mr. Grier's interests. No arrangement has yet been reached. Mr. Grier, it is understood, offered to sell his interest for an advance of \$100,000 on the market value of his interest. The market value of the former's mills and limits is understood to be nearly a million dollars.

—Messrs. J. C. Kidd and Duncan McLaren recently felled a giant oak on the farm of the late G. McLaren, lot No. 20, Beckwith, the extreme length of which was 103 ft.: from ground to first limb, 51 ft.; girth, two feet from ground, 11 ft.; girth, fifty feet from ground, 9 ft. It was purchased by the Canada Lumber Company, of Carleton Place, and will be used in repairs in their mills there. The company despatched their foreman with four men and two teams to cut and convey it into town. It is said that the tree cost the firm \$50.

—The immense consumption of wood for railway ties and the growing scarcity of material has set inventors thinking as to the possibility of finding more durable substitute. The average length of service of a wooden cross tie is about six years. Some do not last even for one year. This requires a constant renewal and much work in changing, and it is estimated the railroads of the country spend at least \$35,000,000 annually on wooden cross-ties. A Philadelphia mechanic of some ingenuity has invented a hollow iron tie, and if his claims prove correct there will be a revolution in the railroad cross-tie business, with a great saving to the companies.

—The annual meeting of the shareholders of the Midland and North Shore Lumber Company was held at Peterborough during the past month. There were present, Messrs. Geo. A. Cox, D. Ulyott, J. W. Fitzgerald and John Bertram. After reports of a satisfactory nature were read and approved, the following officers were elected:—President, Mr. Ulyott; Vice-President, Mr. Bertram; Sec.-Treas., Mr. Cox. The Company's mills are situated at Parry Harbor and do one of the largest lumbering businesses in Ontario. It is expected a line of the C. P. R. will be run to the mills from Claremont this summer, when the shipping facilities will be greatly increased.

—The record of casualties during 1887 compiled by the *Northwestern Lumberman*, comprises 341 deaths, and serious injuries, including the loss of one or more limbs, fractures of various kinds, and maiming in a variety of frightful ways, involving 215 persons—all in connection with operations in the woods, and the running of saw, shingle, planing and stove mills, and other wood-working establishments engaged in manufacturing raw material direct from the stump; also box and sash, door and blind factories. The aggregate—556 persons killed or maimed—is an appalling testimonial to the great danger incident to the various processes through which wood passes from the tree to its introduction as a finished commodity.

—The high hills of San Domingo are vast forests of mahogany. Some of the hills are 3,000 feet high, but there being no snow, owing to the tropical location, and not a railroad in the republic, they cannot get the mahogany down. So there it is, untold quantities of it, worth big money, but bringing nothing. From other islands of the West Indies a great deal of mahogany is exported at a big profit. Three-fourths of it goes to Europe, principally London, while the other fourth goes to New York. It is largely shipped in the log in sailing vessels. There isn't a single saw mill in all San Domingo. The lumber they do manage to get out is manufactured by hand, by the slow whip saw process.

—Logging operations are unusually brisk at Hepworth, Ont. this winter, and men and teams are very plentiful. The output here of lumber next season will amount to about seven million feet, composed principally of hemlock, also maple, beech, black ash, elm, cedar and pine. There is also a very large quantity of cedar ties, telegraph poles and cordwood coming out. In fact we know of no other little place in Ontario where there is as much business being done and so much money in circulation as there is here at present. The mills are running every day, and shipping of lumber is actively carried on during the whole winter. The quality shipped is principally hemlock, dimension stuff for builders' use in the early spring. There are three good saw mills in the village, and several more in the outlying neighborhood, as well as three or four shingle mills, all of which will be fully stocked this winter. The shingle mills manufacture a good brand of cedar shingles and some pine.

—There is increased interest in the timber districts of the Puget sound region, and Wisconsin and Michigan manufacturers are rapidly adding to their investments in fir and cedar timber. In a report to the Olympia board of trade with reference to building a log railroad from Budd's Inlet to Chehalis river, Mr. F. W. Brown, a civil engineer, states that the largest part of the country along the line, and tributary to it, is a dense forest of very valuable fir and cedar timber, the quantity of which it would be impossible to estimate, but it is safe to say that there is enough lumber within two miles of a line extending in the vicinity of the one proposed to equal 50,000,000 feet per mile for the whole road. Twenty trees per acre and 10,000 feet to the tree are not uncommon or hard to find in this immense forest; 200,000 feet per acre, or 1,536,000,000 in a distance of one mile along the road, and a tract twelve miles wide. This amount is, perhaps, the highest extreme, and not the average; but a safe average at 150,000,000 feet is not too high.

—The lumber committee of the Merchant's Exchange, at Buffalo, N. Y., have reported that the business of the year, while large, was not as much so as was anticipated, on account of high lake freights. Building was fairly active, but the efforts made to advance prices on lumber to meet the advances on lake freights had the effect of checking building enterprises, and while the business done compared favorably with that of the years previous, the margins were smaller and the profits correspondingly less. There was a slight decrease in the receipts of lumber as compared with 1886, but they would have been 25,000,000 feet more had there been ample carrying capacity and lower freights. The estimated amount on hand January 1st, 1888, was about 140,000,000 of stock, 20,000,000 feet less than was estimated on hand a year ago. In addition the amount of business done by rail was large and is constantly increasing in volume, and it is estimated that 125,000,000 feet of lumber was received at Buffalo by rail alone; and that 1,700 cars of lumber were shipped during the past year.

—The lumbering operations of M. Boyd & Co., says the *Bolbecaygeon Independent*, are something astonishing this season, and the woods for miles around are moving with life, like a colony of ants. Over six hundred men are engaged in the ten shanties, each shanty having a cob-web of roads around it, and the cob-webs over lapping each other. So confusing was the labyrinth of roads to new comers, and so much time was wasted in teams getting lost that finger boards have been placed. So far, the weather has been all that could be wished and the work has gone on merrily. Drawing has been boss, and let me tell you that the drawing that is done nowadays, is nothing like the drawing that was done in the old days. With their cat teams, narrow sledges and narrow runners, three logs were a load. Now, they have powerful teams, broad sleighs and broad runners and the way they pile up the logs is a marvel. Why to give you an idea of a load, Chas. Reynolds boss of a shanty over the way here, has a team that walked away with 32 logs, that would make an average of 12 inches, and make fully ten standards. And the team were not feeling anyway extra well that day, or was it to say any such a langed fine day for drawing, either. Still the boys were satisfied with the draw, and are waiting to see it beaten, before they really show their oats.

—While passing through Trenton, Ontario, recently, a *Timberman* representative had his attention called to the Gilmour sawmill located at the mouth of the Trent River, near the head of the Bay of Quinte. Being in company with one of the McLean Bros., of French river mills, with office at Owen Sound, a question in regard to the "big mill" referred to, elicited the information from that gentleman that the mill was a monster in size and capacity. "You think," said Mr. McLean, "that you have big mills in the United States, but the best of them dwindle into comparative insignificance alongside of the Gilmour mill which has a capacity of 900,000 feet per day, with sixteen engines that furnish the motive power for the circulars, gangs and other paraphernalia of the establishment." He added, however, that "the mill, for some time past has not been run to anything near its full capacity, and that several mills at Ottawa turned out more lumber last season than the one alluded to. The Trent River, away back in yesteryear, thirty years ago, had several water power mills along its banks, most of which have gone into decay; and at the time referred to the mouth of the river, adjacent to where the Gilmour mill is now located, was the scene each spring of lively and exciting times, with the small army of French Canadians rafting the timber which was harvested on the Trent; and when the rafts were completed, with the requisite buildings on them for the accommodation of the men, they were floated past Belleville and Kingston enroute to their destination at Quebec. A large proportion of the timber, however, harvested on the Trent in the form of sawlogs in these latter days is converted into lumber at the "big mill."—*Chicago Timberman*.



—Waterloo, Que., complains of a short supply of cordwood.

—Lumbermen in the Eastern townships are beginning to complain of too much snow in the woods.

—The various lumber firms at Fishers river, in the Northwest, are getting out logs in large quantities.

—Lumbermen in the vicinity of Nirkessport, Ont., are very busy, and expect to do a large amount of work this winter.

—Joseph Gagnon, from Piopolis, is getting out two million feet for the Nantais Mill. Archibald is getting out a million feet for Major McAuley.

—The Minister of Customs has decided that teams when going from Canada to work in the lumber woods in Maine or Michigan cannot be remitted into Canada free of duty.

—Hess Bros., of Listowel, Ont., the well-known furniture manufacturers, are about erecting a new factory, 110x60 feet, four stories high, in order to keep pace with their largely increasing trade.

—The firm of G. A. Dougherty & Sons, planing mill, etc., Leamington, Ont., has dissolved, Mr. G. A. Dougherty retiring. Mr. Sam Fuller enters the firm and the style is now Dougherty & Feller.

—Reports from Lake Megantic states that lumbering is going on briskly, but notwithstanding a good demand, no more is paid in log than last year, although men get from three to four dollars a month more, and are scarce at that.

—Wyle's new saw mill at Midland was destroyed by fire on the 23rd Feb. There is little doubt but that it is a case of incendiarism. The loss will amount to something over \$8,000. He was insured in the British American to the extent of \$4,000.

Messrs. BRYANT, POWIS & BRYANT, the well known and reliable firm of timber dealers of London, England, are now represented in the Dominion by Messrs. Chas. G. Davies & Co., of Quebec.

—A project is on foot at St. John, N. B., to construct a canal around the Grand Falls for the passage of logs down the river, thereby preventing the heavy loss to lumbermen resulting from the hanging up annually of large quantities of logs at the falls.

—Parry Sound lumber operators report five camps in full blast this winter to every one in operation during the past two winters: although a large number of men were hired in Toronto for the camp, the demand was not satisfied. Good wages were offered.

—The workmen at Messrs J. R. Booth & Co's saw mill have finished the work of blasting out the roadway underneath the large saw mill as well as the foundation for the new lath mill. Several thousand toise of splendid building stone have been taken out, and will be used in the construction of the new mill and the repairing of the old ones.

THE manufacture of Terra Cotta Lumber is an industry that can be worked to great advantage in connection with lumber mills. It is composed of a mixture of clay and sawdust and burned in kilns after the manner of brick, the sawdust furnishing the fuel in the process, burns out leaving a porous ware that can be worked with tools, retains nails equal to wood, is light in weight, and fireproof; cheap as pine and eminently adapted for even ordinary house building, and can be used advantageously both in new construction and in repairing, not only as an economical building material but as a safeguard against fire. The Dominion Terra Cotta Co., whose headquarters are at Deseronto control the patents for Canada and have arranged with the Rathbun Co. who have erected pioneer works which are now in active operation.

THE international meeting of commissioners to suggest methods of adjustment of our trade relations with Canada has called forth some protests from some parties, as they are opposed to making any concessions whatever. Why there should be any objection something approaching a mystery. If we had nothing to set Canada, that might be a fair foundation upon which to ground an objection, but we have as much to sell Canada as that country has to sell us. Every nation that has had an exchange of commerce with other nations has profited thereby, and largely, too. Advantages are generally mutual. Germany and France possess many ships and are doing a large shipping trade. Their citizens, it may be noted, have been permitted to buy their ships in England, or where they pleased. Both the sellers and purchasers of vessels are gainers. An interchange of commodities between the United States and Canada can but be favorably to both countries. The competition they give in pine is more than balanced by what they want in some of our products. We do not propose to enter upon the discussion of free trade and the removal of the revenue tax on lumber, but while it might cause a temporary loss to a few lumber dealers in the North and Northwest, there is a probability that it would be an advantage to some of our people.—*American Exchange.*

#### Judicious Advertising.

A lumber dealer at Marshalltown, Iowa, says the *N. W. Lumberman*, strikes a key-note, when he mildly upbraids the manufacturers for failing to advertise in representative trade journals in a consistent and persistent manner. There is method in advertising just as there is in selling lumber. The most persistent advertisers in various lines of business adopt a plan of presenting their business that is unique, catchy and profitable. Effective advertising is an intelligent way of informing the buying public that such and such articles are for sale at such a location. Applying this to the lumber business, we find a firm in upper Michigan making a specialty of thick uppers, another in Wisconsin devoting especial attention to wide pine, common and select, and another, say at Manistee, doing a heavy business in strips. All these firms may be willing advertisers, all representing themselves merely as "manufacturers and wholesale lumber dealers." The yard dealers, who up to this time, is always on the alert for bargains or specialties, and in looking over advertising pages he finds plenty of firms represented, but not one in a dozen indicate by the make-up of the advertisement that any attention has been paid to it since its initial issue. Yard dealers, and buyers generally, desire to know exactly what manufacturers have to offer and the latter can inform thousands of such in an inexpensive and intelligent manner, by a judicious use of printer's ink and a few direct statements. Such a course would make advertising even more valuable than at present. The middle man now secures a profit that might go elsewhere if manufacturers advertised judiciously. It is the business of the middle man to hunt up stocks at the mills and orders of the yard dealers, and by an acquaintance at both ends of the route, the shipper loses a profit, and the dealer pays more for his lumber than he need to. Scientific advertising would make a vast difference in the lumber trade, and lead to better results to all concerned.

#### Timber Measurement in Quebec.

Mr. J. B. Charleson, recently appointed overseer of the timber operations on the Upper and Lower Ottawa by the Mercier Government, has, in conjunction with Mr. J. McKay, of the Crown Lands Department, recently returned from Toronto where they were collecting information from the Ontario Government as to the method of collecting timber dues. Up to a month ago the Dominion Government collected timber dues in the Ottawa valley, and Mr. Charleson thus explains his new duties: "The Quebec Government," he said, "formerly collected stumpage dues upon two sizes of logs. Those seven-eighths inches and upwards were taxed twenty-two cents. Logs under maximum were rated at eleven cents. In future the stumpage will be collected by board measure. The new rate being \$1.30 per thousand feet. The Quebec Government is simply assimilating their system with that of Ontario. In each shanty the logs will be measured, the lumbermen being obliged to submit sworn statements regarding the quantity, size and length of logs. On this basis the average size of the logs will be estimated and thus also the amount of dues determined by reducing it to board measure."

#### Meeting of Ontario Lumbermen's Association.

The first annual meeting of the lumbermen's association of Ontario, which was held in the council chamber of the Board of Trade, Toronto, the early part of February, was attended by a fairly large number of members from different parts of Ontario. The chair was occupied by Mr. A. H. Campbell, of Toronto, and the press were not admitted.

After the regular business of the meeting, which was not given to the press, had been transacted, the following resolution was moved by Mr. John Charlton, M. P., and seconded by Mr. Charles Beck and carried:

"That the Lumbermen's Association of Ontario appreciates the great importance to the lumbering interests as well as to the agricultural, mining, fishing and other interests of the Dominion, of obtaining free access to our natural market, the United States, for the products of Canada and that we cordially endorse and sustain the movement for obtaining free commercial intercourse between the United States and Canada by means of Commercial Union or unrestricted reciprocity to be secured by treaty arrangement that will duly guard and protect the interests of the great producing class of the country."

It was also decided to raise the price of common bill stuff on the Georgian Bay to \$10 per thousand feet at the mills.

The following gentlemen were appointed on Executive Board:

M. M. Boyd, Bobcaygeon; J. M. Irwin, Peterboro'; D. Cilmour, Trenton; A. H. Campbell, Toronto; James McLaren, Buckingham; John Waldie, Toronto; John Charlton, M. P., Lyndoch; J. L. Burton, Barrie; E. H. Bronson, M. P., Ottawa; W. C. Caldwell, Lanark; H. H. Cook, Toronto; N. Dymant, Barrie.

A. H. Campbell was re-elected president, and Mr. J. B. Millar, of Parry Sound, was re-elected secretary-treasurer.

#### Material Wasted.

There are many industries for which we have abundant material, which cannot flourish, or perhaps be established at all, in our limited market. One of these is the cutting of veneers for furniture. We do not know that there is a veneering factory in all Canada and are pretty certain that there is not one in this district. At all events most of our veneers are imported—some even from Europe.

Now the Western Peninsula is full of the best material for this purpose. Black walnut stumps, for example, in the Lake Erie counties will neither rot nor burn, but would be worth many times the present cost of destroying them if there was anyone ready to slice them into veneers. Stumps, roots and knots of cherry, butternut, oak, black birch, chestnut and many other woods—the very portions that are good for nothing else—make the best of veneering.

Across the border there are many large furniture shops which we could supply more cheaply than anyone else, while making handsome profits out of what is now waste material. Free trade in veneering would put hundreds of thousands of dollars in the pockets of our farmers and manufacturers.—*London Advertiser.*

#### Albany Favors Free Lumber.

It is apparently the opinion of the Albany dealers that to abolish the duty on lumber would not have any marked effect either on wages or on the price of lumber. The *Argus* of that city interviewed twenty out of twenty-six dealers in the District. Of the number ten were in favor of the repeal of the tariff on lumber. Four dealers opposed the abolition of the tax but only one of the number expressed the opinion that a low rate of wages would result from the introduction of free lumber.

#### EXCHANGE ECHOES.

Chicago Timberman.

SENATOR WILSON, of Iowa, seems to have made a "fist" of it by attacking the railroads running through Canada into the United States, by suggesting the closing of our roads from delivering to or receiving freight from them. What will Minnesota and Wisconsin say to this, after laboring many years to secure an outlet via the "Soo" for their lumber and flour on rates equal to those from Chicago and Saginaw, to New York and New England, and then have such an outrageous proposition passed as has been made to the Senate Inter-State Commerce Committee, and thus wipe out the untold benefit the "Soo" route will give to the northwest. Every shipper of lumber can be thankful that such a road as the Grand Trunk is in existence. It has done more to develop and cheapen lumber transportation than all the other trunk lines combined. There is but one conclusion to be drawn from the Senator's remarks, and that is that the gentleman is not posted as to the wants of the northwest and the American people in general, or is lending his influence to the roads in opposition to the "Soo" route.

Southern Lumberman.

THE CANADIAN lumbermen who accidentally get into conversation with reporters, or even with people interested in lumber in the United States, claim that the removal of the export duty would be of very little advantage to them, and still it is well known that they are greatly in favor of this reduction. There is undoubtedly some truth in the statement which they make, that every year it is more expensive to deliver the product, as the sources of supply are receding from the present lines of transportation. But two dollars per thousand is something of a bonus, and a well conducted lumbering force can remove logs and lumber some distance for this sum. Where there are large tracts, a logging railroad can be built and worked to excellent advantage. All this, of course, is on the assumption that the removal of the duty will not depreciate the price of lumber. The lumbermen of the United States naturally fear that the prices will go down. The Canadians just as naturally hope that the removal of the duty will accrue so much to his advantage. While both sides are ventilating their ideas, it yet remains to be seen whether the tariff-tinkers at Washington will bring lumber into the question. Of course a lot of articles will be put on the free list, but it seems as though some might be selected that would be more reasonable and beneficial to this country than to invite a general free competition in the manufacture of lumber. If other things can be made equal, so that our manufacturers here can produce as cheaply as our Canadian friends, it would give a different color to the matter. At present lumbermen can be fed and clothed at a less cost in Canada than here. The luxuries—which even lumbermen claim they must have—are much cheaper there, especially for chowers, smokers and drinkers. Lumber is a commodity of little consideration, however, among congressmen. From lack of thought and interest it may not receive the consideration to which it is entitled. The question simply is: Who will be benefitted by a removal of the duty? Legislation should be in favor of ourselves every time. If it were a question of annexation it might be different, but while the Canadian lumberman has the benefit of cheaper living than our own people, why should we give him more at a great risk of hurting ourselves?

THE need of insurance against death and accident especially on the part of those whose occupation is of a hazardous character is now generally recognized. There are no better companies in the field than the Manufacturers' Life and the Manufacturers' Accident. They have done an enormous business and gained the confidence of the public. A special feature of the Manufacturers' Accident Insurance Co. is that it issues policies covering the employer's liability for accidents sustained by their workmen.

TRADE REVIEW.

Toronto, Ont.

TORONTO, Mar. 2nd, 1888.

CAR OR CARGO LOTS.

Table listing lumber prices for Toronto, Ontario, including items like 1 1/2 inch and thicker clear picks, American inspection, and various sizes of mill runs.

YARD QUOTATIONS

Table listing yard quotations for Toronto, Ontario, including mill cull boards, shipping cull boards, and various sizes of flooring and shingles.

Montreal, Que.

MONTREAL, Mar. 3rd, 1888.

Table listing lumber prices for Montreal, Quebec, including pine, spruce, and various sizes of culls and shingles.

Ottawa, Ont.

OTTAWA, Mar. 3rd, 1888.

Table listing lumber prices for Ottawa, Ontario, including mill culls, cull strips, and various sizes of shingles and laths.

Burlington, Vt.

BURLINGTON, Mar. 2nd, 1888.

Table listing lumber prices for Burlington, Vermont, including Canada Pine Siding, Pickings, and various sizes of shingles and sheathing.

Hamilton, Ont.

HAMILTON, Mar. 2nd, 1888.

Table listing lumber prices for Hamilton, Ontario, including mill cull boards, shipping cull boards, and various sizes of flooring and shingles.

St. J. N. B.

St. JOHN, Mar. 3rd, 1888.

Deals, Boards, Scantling, etc.

Table listing lumber prices for St. John, New Brunswick, including spruce deals, pine, and various sizes of shingles and flooring.

Detroit, Mich.

DETROIT, Mar. 2nd, 1888.

Table listing lumber prices for Detroit, Michigan, including upper selects, flooring, and various sizes of shingles and laths.

Philadelphia, Pa.

PHILADELPHIA, Mar. 3rd, 1888.

Table listing lumber prices for Philadelphia, Pennsylvania, including Mich. uppers, white pine, and various sizes of shingles and laths.

HARDWOOD.

Table listing hardwood prices for Philadelphia, Pennsylvania, including Nos. 1 & 2, 1 in., good, and various sizes of shingles and laths.

Saginaw Valley.

SAGINAW, Mar. 2nd, 1888.

Table listing lumber prices for Saginaw Valley, including cargo lots and various sizes of mill culls.

YARD QUOTATIONS - CAR LOTS DRY.

Table listing yard quotations for Saginaw Valley, including clear 3/4 in. and various sizes of flooring and shingles.

Finishing Lumber - Rough.

Table listing finishing lumber prices for Saginaw Valley, including three uppers, 1 in., and various sizes of shingles and laths.

Just, Scantling and Timber.

Table listing lumber prices for Saginaw Valley, including 12 to 18 feet, 20 feet, and various sizes of planks and timber.

New York City.

NEW YORK, Mar. 3rd, 1888.

Table listing lumber prices for New York City, including black walnut, 3/4 in. all clear, and various sizes of culls and shingles.

Dressed Poplar.

Table listing dressed poplar prices for New York City, including 3/4 inch panel and various sizes of casing.

Ash.

Table listing ash prices for New York City, including 1 inch white and various sizes of strips and culls.

Oak.

Table listing oak prices for New York City, including 1 inch plan saw and various sizes of strips and culls.

Cherry.

Table listing cherry prices for New York City, including 3/4 in. white & clear and various sizes of strips and culls.

Miscellaneous.

Table listing miscellaneous lumber prices for New York City, including chestnut, basswood, and various sizes of shingles and laths.

Buffalo and Tonawanda, N. Y.

TONAWANDA, Mar. 2nd, 1888.

Table listing lumber prices for Buffalo and Tonawanda, New York, including Norway pine and various sizes of shingles and laths.

White Pine - Rough.

Table listing white pine prices for Buffalo and Tonawanda, New York, including uppers, 1 in., and various sizes of shingles and laths.

Dressed Lumber.

Table listing dressed lumber prices for Buffalo and Tonawanda, New York, including base and casing, and various sizes of shingles and laths.

Shingles and Lath.

Table listing shingles and lath prices for Buffalo and Tonawanda, New York, including 18 in. XXX and various sizes of shingles and laths.

# The Gutta Percha and Rubber Manufacturing Company of Toronto.

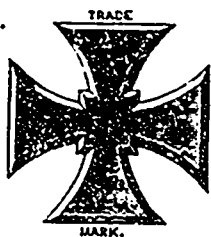
Offices : 43 YONGE STREET, TORONTO.

Factories : PARKDALE, ONT.

Sole Manufacturers of "Monarch,"

"Red Strip," and "Lion" Brands of

## RUBBER



## BELTING

Particular attention given to special Belts for Lumber Mills.

Our celebrated "Maltese Cross" Rubber; "Baker Fabric" and Ajax Cotton; "Giant" and Light Linen, and Fire Hose constantly in stock.

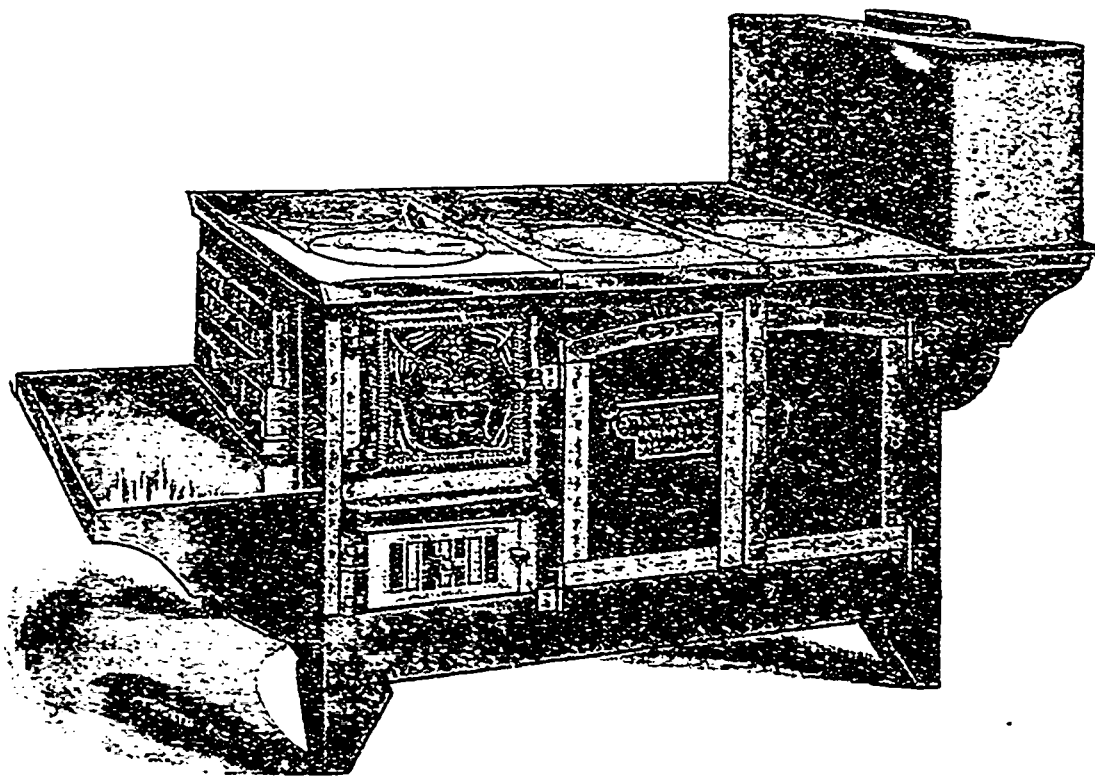
LUMBERMEN'S HEAVY RUBBER CLOTHING, OUR OWN MANUFACTURE.

Address all Communications to THE GUTTA PERCHA & RUBBER MFG. CO. OF TORONTO, 43 Yonge St.

## FINE PRINTING

Having equipped "The Lumberman" office with the Latest Designs in Type and Presses, we are now prepared to execute all orders entrusted to our care, either for Plain or Colored Printing, on short notice and at reasonable prices. Write for Estimates.

A. G. MORTIMER, Peterborough, Ont.



## WROUGHT IRON SHANTY COOK STOVES

The BEST ARTICLE Ever Offered to the Trade.

I have much pleasure in drawing attention to my Wrought Iron Cooking Stove, for Shanty, Hotel and Boarding House use. These stoves are made of heavy sheet iron, the top and lining of the fire box being of heavy cast metal, and all the connecting parts of heavy wrought iron work. The dimensions of these Stoves are as follows: Top surface contains six 10-inch holes, fire-box 25 inches long, and one oven 25x24x10.

EVERY STOVE GUARANTEED.

All the necessary TINWARE and CUTLERY for Shanties supplied at the Lowest Prices.

Adam Hall, Peterboro'.

## \* TAPER PIKE POLES \*

Peevey Stocks and Cant Hook Handles.



The Pike Pole handles are twelve and thirteen feet long; made of the best Straight Rock Maple; are turned in a machine made expressly for the purpose, and are 1 1/2 inches in diameter for one-half their length, being then tapered to one inch at small end, and chucked to fit furrel. We are the only manufacturers in the world who have the system and machinery for turning out Taper Pike Poles successfully.

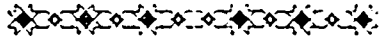
THEY SELL ON SIGHT AND GIVE THE BEST OF SATISFACTION.

Price of Pike Poles, Peevey Stocks and Cant Hook Handles, \$25.00 per Hundred. Sample Pole sent for 25 cts.

The following are a few of the firms who have used these Poles for several seasons: D. Ulyott, Esq., J. M. Irwin, Esq., Geo. Hilliard, Esq., Peterborough; Gilman & Co., Trenton; M. Brennan & Sons, Hamilton; Gilmour & Co., Chelsea, Que.; M. Boyd & Co., Bobcaygeon; Muskoka Mill & Lumber Co., Muskoka Mills; The Rathbun Co., De-cronto; Heath, Tait & Turnbull, Huntsville; Cookshire Mill Co., Cookshire, Que.

Wm. Forsyth, Peterboro', Ont.

# IMPORTANT NOTICE TO THE PUBLIC.



*I am patentee and owner of Canada patent, No. 42,357 - Improvement in Band Saw Mills which covers a Band Mill with two columns. I am also patentee and owner of Canada patent, No. 42,377 - Improvement in Band Saw Guides—which covers wheel guides for a Band Saw. I am informed that a Band Mill is being offered to mill men in the Dominion, containing two columns which is an infringement of the above patent. The public is hereby warned against purchasing such Band Mill, as I shall hold the purchaser responsible for the infringement of my said patents, and for all damages which I may have, or may hereafter sustain, on account of any unlawful use of said patents.*

*The W.M. HAMILTON MANUFACTURING CO., Peterborough, Ont., is authorized to build and sell Band Mills under my patents.*

[ A TRUE COPY. ]

FRANK W. WHEELER,  
SHIP BUILDER,

Specifications and Estimates  
Furnished on application.

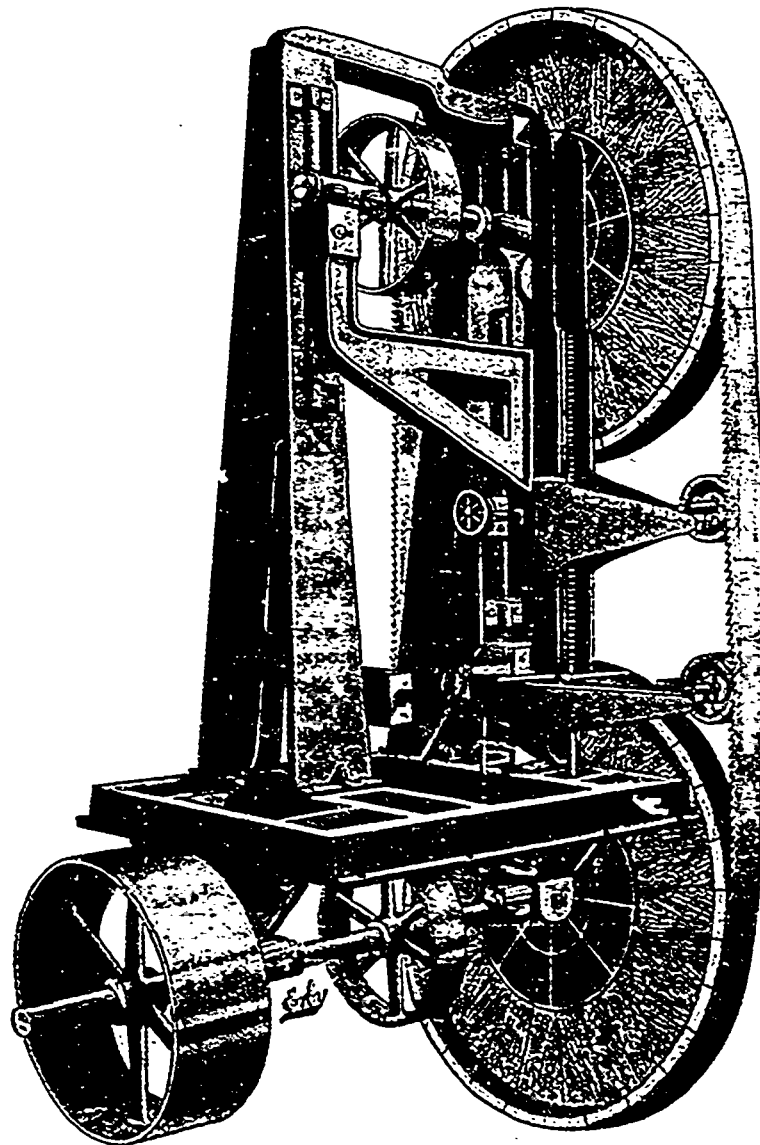
WEST BAY CITY, Mich., June 26th 1886.

Mr. D. K. Allington, East Saginaw, Mich.

I have been running your Pat. Band Saw Mill in my new ship yard mill for over one month, squaring up large and long hewn oak timber which has been hewn a sufficient time to be dry and hard on the surface, and sawing long plank from same kind of timber. The timber, or Keelson's squared, was laid up in a vessel, one on top of the other, and fitted as well as could be done by hand, it being square straight and out of wind. I have had a large amount of this plank and timber sawn, and have not yet found a bad cut. I have squared timber where the saw here and there barely cut the thickness of the saw kerf, yet the saw did not deviate the least from a straight line. From the nature of my work I cannot give any idea of the amount cut in a given time, but the speed of cut should be satisfactory to any one. The most difficult part of my work is in sawing tamarac ship knees, yet the machine has given me entire satisfaction in this respect, sawing a foot having a cut of from 2 to 3 feet, making in every case a true cut.

I do not believe that a saw has been put on the machine in good order, as I have not a sufficient number of saws to give time to dress them well and keep the mill running, yet there has not been one broken or disabled, in fact, a saw may be in bad order that will not run in a straight line when run over your guide wheels.

Yours, truly,  
F. W. WHEELER.



[ A TRUE COPY. ]  
F. W. WHEELER'S SHIP YARD.  
WEST BAY CITY, Mich., June 25th, 1886.  
Mr. D. K. Allington, East Saginaw, Mich.

DEAR SIR:—I have been engaged in running band saws for the past five years, and I never before found anything equal to the Band Mill built by you, that I am now filing for. I must say that it is almost impossible to make a bad line if the saw is in any kind of order. We are cutting hardwood, principally long oak, and on account of being scarce of saws we have run our saws for five hours and cut as fast as we could conveniently handle, without making any perceptible variation in the cut. I have run various kinds of mills, but never before saw anything to equal it. There has been quite a number of millmen examining it, and all give it up to be the best and truest cutting mill they ever saw.

Respectfully yours,  
JOHN A. GREGG.

[ A TRUE COPY. ]

BAY CITY, Mich., Nov. 15th, 1887.

Mr. D. K. Allington, Saginaw, Mich.

DEAR SIR:—Having had considerable experience with Band Mills, I consider myself competent to judge the merits of the same. I started and run one of your Band Mills at Victoria Harbor, Ontario, which was manufactured by the Wm. Hamilton Manufacturing Co., of Peterborough, Ont. I also started and run your two Band Mills in William Peters' mill, at Bay City, Mich., and must confess they are superior to any Band Mill I ever seen, for quality and quantity of lumber produced.

Respectfully yours,  
W. A. McCLENNATHAN, Filer.

[ A TRUE COPY. ]

F. W. WHEELER'S SHIP YARD.

WEST BAY CITY, Mich., June 24th, 1886.

Mr. D. K. Allington, East Saginaw, Mich.

DEAR SIR:—I have been sawing on your Band Saw Mill for the last month, making plank from long square oak timber, partially seasoned, and being short of saws, do not have time to have them put in in the best of order, and have to run them five hours without changing, yet I have not broken a saw or made a bad cut, the machine running smoothly, and not having cause to stop for any reason but to change saws, and cutting as fast as other band saws I have run.

Yours truly,  
THOMAS GRAHAM.

## D. K. ALLINGTON,

# MANUFACTURER OF IMPROVED BAND SAW MILLS

No. 24 Hoyt Block, East Saginaw, Mich., U. S.



# B. F. STURTEVANT'S PATENT PROGRESSIVE LUMBER DRY KILN.

RELIABLE! RAPID! CHEAP!

GRANANTEED TO DRY

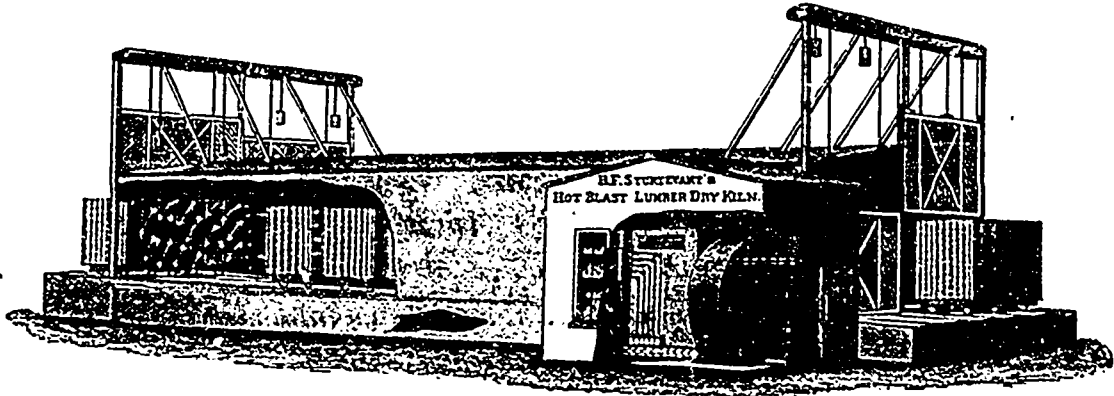
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Best Manner Possible

ALL KINDS OF HARD and SOFT WOOD LUMBER.

WRITE FOR CATALOGUE.

115 LIBERTY STREET, NEW YORK.



NO WARPING, CHECKING AND BLUEING -WITH THE- STURTEVANT Patent Hot Blast Steam Heating Apparatus.

31 N. CANAL STREET, CHICAGO.

B. F. STURTEVANT, Patentee and Sole Manufacturer, BOSTON, MASS., U. S.

## BOWDEN & CO.

A. GOODBY,

Manager.

### Lubricating Oils.

Sole consignees of Southwick's Celebrated Cylinder, Engine and Machine Oils

MANUFACTURERS OF HIGH GRADE OILS.

Millmen requiring Oils of uniform quality and high grade should write us. Sole makers of Crown Lubricant and Crown Crank Pin Grease, the greatest thing in existence for Shafting and Engines, cups supplied. Note our address:

BOWDEN & CO., 59 Adelaide Street, West, Toronto, Ont.

## The ORONO GANT DOGS.

Strongst and Lightest in the Market.

NEW STYLE--COMPLETE

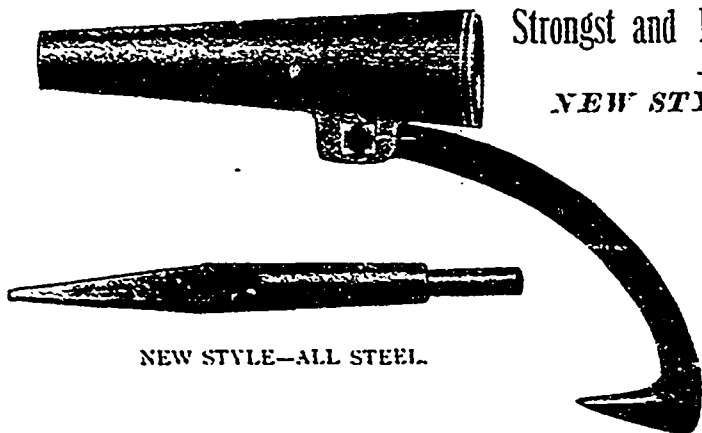
Socket is in one piece and extends above hook, adding strength. Drop Forged Hook and Round Bill; easily disengaged. Pick, with shoulder. Selected Rock Maple Handle, specially bored.

OLD STYLE--COMPLETE

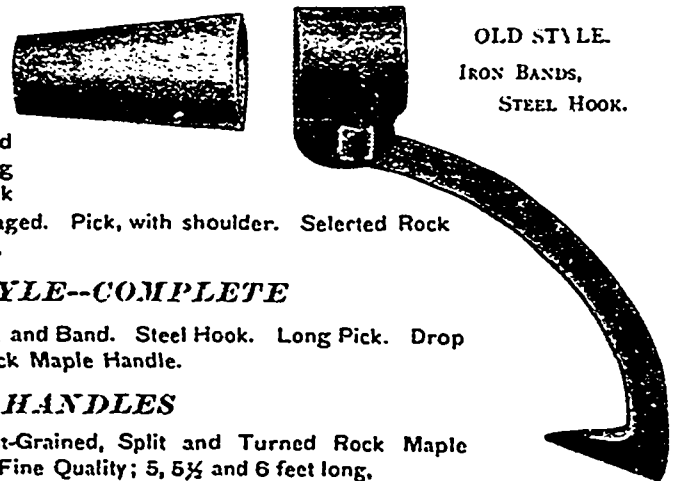
Wrought Norway Iron Socket and Band. Steel Hook. Long Pick. Drop Forged Hook, Round Bill. Rock Maple Handle.

HANDLES

Selected Straight-Grained, Split and Turned Rock Maple Handles. Extra Fine Quality; 5, 5½ and 6 feet long.



NEW STYLE--ALL STEEL.



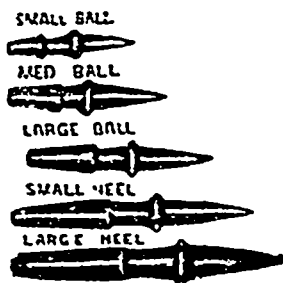
OLD STYLE IRON BANDS, STEEL HOOK.

## LUMBER DRIVER'S BOOT CALKS

Made from the best Refined Tool Steel and forged. The method used in tempering leaves every one of the same temper, rendering them stronger and more durable than any other Calks.

Ask your dealer for our make and see that our Labels are on the boxes.

SEND FOR PRICES.



T. McAvity & Sons, St. John, N.B.

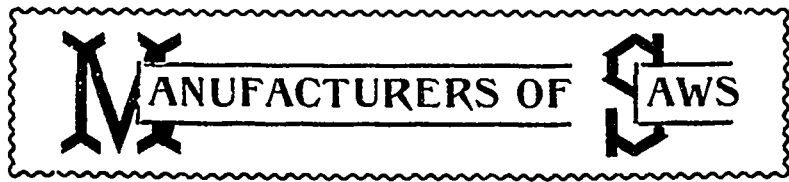
# DOMINION SAW WORKS!

## JAS. ROBERTSON & CO. JAMES ROBERTSON

253 to 267 King Street West,

Dalhousie and William Streets,

Toronto, - - Ontario. Montreal, - - - Que.



*Circular, Shingle, Gang, Cross Cut, Concave, Mulay, Drag, Grooving.*

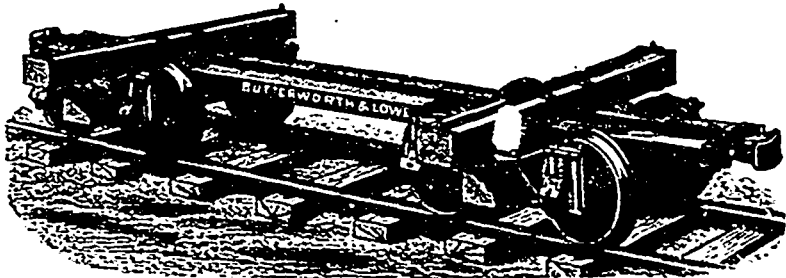


### Thurber's Royal ANTI-FRICTION BABBIT METAL.

IMPORTERS AND DEALERS IN

Band Saws, Emery Wheels Saw Sets,  
Saw Swages, Rubber Belting, Iron Pipe,  
Saw Gummers, Leather Belting, Files, &c.

*EVERY SAW FULLY WARRANTED.  
Prices on Application.*



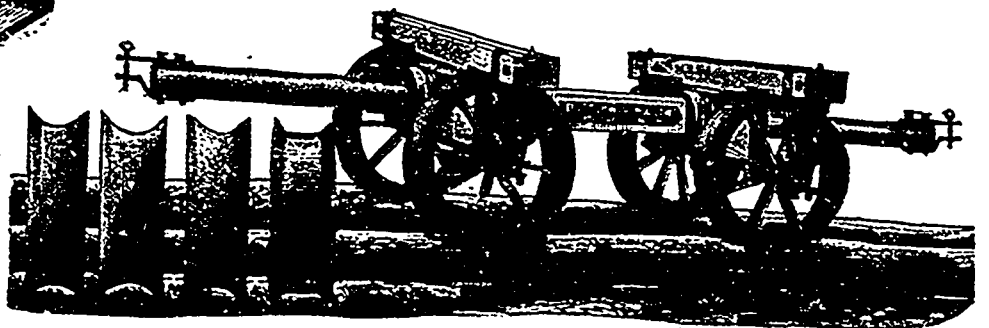
MANUFACTURERS OF

Logging Cars, Logging Trucks, Pole Road Cars, Wheels Chilled and Unchilled, Flat Faced and Concave, for every Description of Logging Road.

Send for Circulars and Mention this Paper.

## BUTTERWORTH & LOWE,

Grand Rapids, Mich., U. S



## THE WANZER LAMP!

PATENTED AT HOME AND ABROAD, 1886.

\*NO CHIMNEY\*

### 50 CANDLE POWER

\*NO SMOKE!

*Positively Non-Explosive!*

EVERY LAMP GUARANTEED.

*No Heat around the Oil Well.*

OUR LAMP is all we claim for it, being positively non-explosive, the oil being kept continually cool, consuming only half a pint of ordinary coal oil during six hours burning; using only an inch wick, and producing a fine clear Fifty Candle Power Light. No chimneys are required, but ordinary globes or shades may be adjusted to it. No smoke or offensive odor. Water can be heated in a few minutes. Tea or Coffee made, and Oysters cooked, etc., without obstructing the light. Reflectors of entirely new designs for both out-door and in-door use are furnished at low figures. Made in all styles—Table, Hanging, Library, attach to Chandeliers, Gas Fixtures, etc.

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## R. M. WANZER & CO., Manufacturers, HAMILTON, ONT.



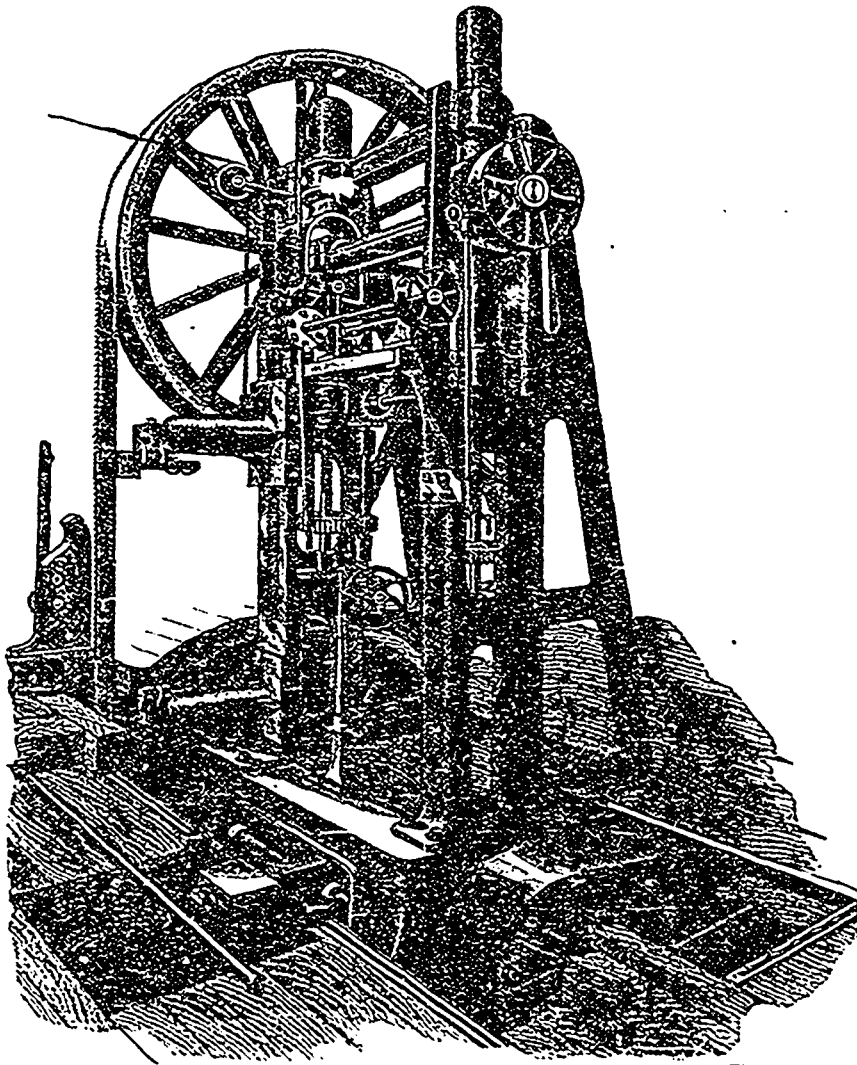
# CHARLES ESPLIN, MILLWRIGHT \* AND \* MECHANICAL \* ENGINEER,

Patentee and Builder of the

## ESPLIN BAND SAW MILL

*The Only Perfect Mill in Use.*

THE following statement of Dimensions will give some idea of its proportions: Diameter of Wheels, 8 feet; diameter of lower and top Wheel Shafts, 5½ inches; length of Lower Shaft, 8 feet 6 inches; length of Top Wheel Shaft, 8 feet 4 inches; length of Bearings for Wheel Shafts, 18 inches; Weight of Mill alone, 22,000 Pounds.



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Minneapolis, Minn., U. S. A.

DEAR SIR,—The band mill placed in our saw mill by you we consider the best and most complete band mill we know of. It has advantageous features which we have not seen in any other mill. The strength of all its parts is ample for every demand upon it. It is massive. The guide arms in their proportions and adjustments seem beyond improvement. The drive wheel by taking up the tension of the saw from below is a great advantage gained. The long distance between the bearings of the upper wheel shaft steadies the motion and the whole machine moves with ease and steadiness.

We have never seen lumber so perfectly manufactured as made by this band mill. The mechanic that planned it and the company that manufactured it deserves the congratulation and thanks of all manufacturers of lumber.

Very respectfully,

SUPERIOR LUMBER CO.

John H. Knight, Secretary-Treas., D. A. Kennedy, Supt. and General Manager.

Address, CHAS. ESPLIN, care of Wm. Hamilton Mfg. Co., Peterborough, Ont.,

OR TO MY AMERICAN OFFICE:

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Ship Plank, Decking and Long Bill Stuff, a Specialty.

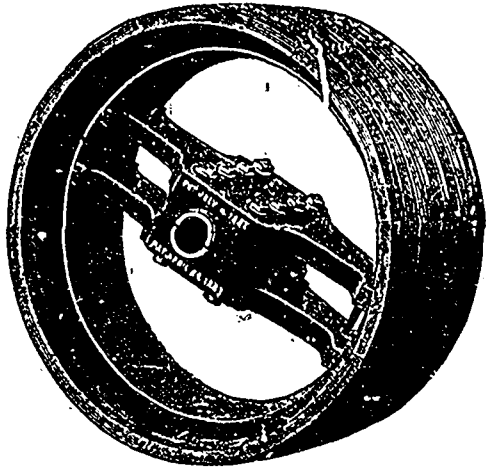
Mills at Burlington, Bronte and Huntsville.

Head Office: 16 UNION BLOCK, corner Toronto and Adelaide Sts., Toronto. Branch Office: 208 Wellington Street, Ottawa.

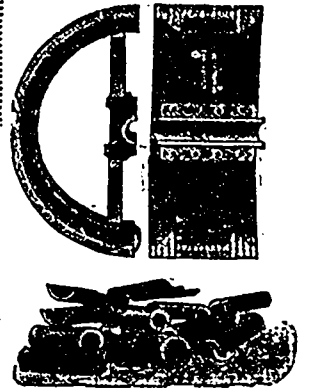
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**BEST BELT SURFACE, LIGHTEST, STRONGEST,  
BEST BALANCED AND MOST CONVENIENT  
PULLEY IN THE WORLD.**



**With our Patent Bushing System**

Every pulley will fit 22 different sizes of shafting, and guaranteed to give from 30 to 60 per cent. more power from same belt and like tension than any iron or steel pulley. Every pulley a split pulley, 70 per cent. lighter than cast iron and 50 per cent. lighter than wrought iron or steel. Strong enough for any power required. Made in any size from nine inches to sixteen feet diameter.

As a material for pulleys wood is better than iron from the fact that it holds a belt much better. Most good mechanics are aware of this fact, but it may not be generally known how great is the difference, and for the benefit of our readers we give the result of two tests made and published by two of the most eminent mechanical authorities:—

Portion of Circumference embraced by Belt.	Rel. value of leather belt		Portion of Circumference embraced by Belt.	Rel. value of leather belt	
	On Wooden Pulleys.	On Iron Pulleys.		On Wooden Pulleys.	On Iron Pulleys.
.20	1.80	1.42	.20	1.90	1.40
.30	2.43	1.69	.30	2.40	1.70
.40	3.26	2.02	.40	3.30	2.00
.50	4.38	2.41	.50	4.40	2.40
.60	5.88	2.87	.60	5.90	2.90
.70	7.90	3.43	.70	7.90	3.40

Morin.—Appleton's Encyclopedia of Mechanical Arts. Haswell.—Engineers' and Mechanics' Pocket Book.

A Dodge Patent Wood Pulley is better than iron from the

fact that it can be made very much lighter and thus save weight on the line shaft and bearings, thereby saving in expense from a saving in friction.

The advantages of the separable pulley are very apparent. By its use the necessity of taking down shafting already up for the purpose of putting on additional pulleys when needed, or to be changed, is avoided, thus saving time, trouble, and expense, while their first cost is much less than any other pulley made not having these advantages.

The Compression Fastening whether used with keys in iron center or compression alone, keeps the pulley always in balance as the compression on the shaft and key is always towards the center.

The most perfect balanced iron pulley fastened with set screws or key, is invariably out of balance by being thrown from the centre, this fact is obvious to all mechanics.

The advantages of our mode of fastening over any other are: It is the only absolutely true fastening for a pulley. A pulley once properly balanced cannot be thrown out of balance in securing with this fastening. A pulley fastened with key or

set screw in the ordinary way, cannot be screwed without tilting the pulley from the shaft at that point where the key or set screw is placed, thus throwing the pulley out of balance.

Manufacturers should carefully avoid any pulley with a set screw fastening for shaft; also a key unless the pulley is compressed on it. The Dodge Patent Bushing system is a great convenience to manufacturers and also to agents who carry pulleys in stock, as with the aid of the patent bushings every pulley will fit 22 different sizes of shafts.

Haswell the acknowledged authority and most quoted by American mechanics, summarizes thus: The ratio is friction to pressure of leather belts, when worn over wooden pulleys is 47, over turned cast iron pulleys, 24, thus showing the average advantage of a wood pulley over iron to be 50 per cent.

We also manufacture GROOVED HARD WOOD PULLEYS FOR TRANSMITTING POWER BY MANILLA ROPES (tallow laid) by the Dodge Patent System of applying the ropes and taking care of the slack.

Illustrated catalogues of belt pulleys and the rope transmission system will be furnished on application to

The Dodge Wood Split Pulley Co., 89 Adelaide St. W., Toronto.

**Notice to Contractors.**

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Post Office etc., Prescott, Ont." will be received at this office until Thursday, 5th March, 1888, for the several works required in the erection of Post Office at Napanee, Ont.

Specifications and drawings can be seen at the Department of Public Works, Ottawa, and at the office of E. Jessup, Esq., Collector of Customs, Prescott, on and after Tuesday, 14th February, and tenders will not be considered unless made on form 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 decline 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. GOBEIL,  
Secretary.

Department of Public Works,  
Ottawa, 5th Feb., 1888.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Cobourg Work," will be received at this office until Thursday, the 13th March, for rebuilding a portion of the Western Pier at Cobourg, Ont., in accordance with a plan and specification to be seen at the Department of Public Works, Ottawa, and at the Office of the Town Trust, Cobourg.

Tenders will not be considered unless made on the form 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 decline 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. GOBEIL,  
Secretary.

Department of Public Works,  
Ottawa, 16th February, 1888.

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WANTED.—Reliable parties to introduce the Hartsfeld Automatic continuous and improved economical Coke and Charcoal Ovens of any capacity.

Also lately improved portable reduction works and prospecting hand-power diamond bit rock drill that will bring up a solid core 500 feet. Extraordinary inducements.

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IF YOU WANT BELTING  
Which will Run Straight on the Pulleys,  
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All our Belting is sold at the Canadian price list. Please compare before purchasing. Send for Discounts and our Pamphlet on Belting.

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A QUANTITY OF SECOND-HAND RAILS,  
30 and 40 lbs. to the yard, for sale Cheap.  
In good order for re-laying.

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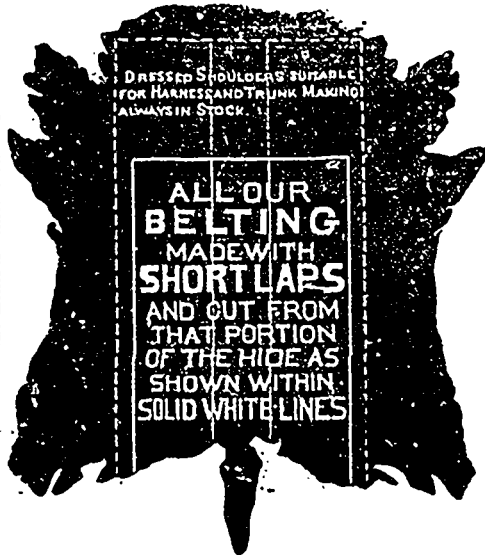
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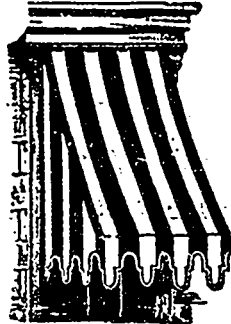
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Lawn and Camping Tents, in every variety of Style and Color. Refreshment Tents, Photographers' Tents, and all kinds of Waterproof Clothing in stock and made to order. American and English Oakum. All kinds of Rope spliced. Orders by mail promptly filled. Tents of every description to rent.



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Our readers will confer a favor by mentioning this Journal when writing to Advertisers.

PRELIMINARY NOTICE.

In the matter of GEORGE BAPTIST, SON & CO. of the City of THREE RIVERS, Insolvents.

The assets of the above Insolvents, consisting of 1870 Square Miles of Timber Limits in the St. Lawrence, Mattawan and Vermillion Territories, Saw Mills, Wharves, Booms, Farms, Shanty outfits and lumber-rigging, Factory, etc., etc., being all the accessories of a large lumbering establishment, will be offered for sale by Tender in the course of a few weeks. Intending purchasers can obtain all necessary information by communicating with the undersigned.

MACINTOSH & HYDE, JOINT CURATOR.

Montreal, 28th Feb., 1888.

1888.

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THE COMPLETE RAILWAY SYSTEM, in operation or projected (Hudson Bay, and Bruckville, Westport, and Soo Railways, etc.) The American connections at the Sault Ste. Marie, the new Ontario Territory, the Algoma and Free Grant District, etc.

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Notice to Contractors.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Iron Staircases at the New Departmental Building, Wellington street, Ottawa, Ont.," will be received at this office until Thursday, the 15th March, for the several works required in providing and erecting Iron Staircases at New Departmental Building, Wellington street, Ottawa.

Specifications and drawings can be seen at the Department of Public Works, Ottawa, on and after Thursday, 10th February, and tenders will not be considered unless made on the form supplied and signed with the actual signatures of the 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 decline 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, 8th Feb., 1888.

WANTED AND FOR SALE.

Announcements in this department will be inserted at the uniform rate of ten cents per line each insertion, payable in advance. For three or more consecutive insertions of the same advertisement a discount of 25 per cent. will be allowed. Eight words should be counted as one line.

TIMBER LIMITS FOR SALE. TIMBER LIMITS FOR SALE IN ONTARIO, Quebec and Manitoba. W. J. FENTON & Co., 50 Adelaide Street, East, Toronto.

FOR SALE CHEAP. A WATERPOWER CIRCULAR SAW AND Shingle Mill with ten acres of cleared land, log house and stable situated on Southriver, about 4 1/2 miles from Trout Creek Station on the Northern Pacific Junction R. R., convenient to School, Church and Post Office and a large settlement in Hainsworth. Also about 30,000 feet of dry Hardwood lumber, cut and piled about two years, and about 50,000 feet of Hardwood sawlogs, principally Birch. If not sold sooner, will cut to order this coming summer. For information apply to THOMAS CORKERY, Barrett, Ont.

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PINE TIMBER LIMITS FOR SALE. Two choice Timber Limits in Northwest Territory, Canada, 100 square miles each; Great Britain, Ala. Limits in Georgian Bay, Algoma and Muskoka districts for sale. JOHN SCULLY, Toronto, dealer in Pine Lands and Lumbermen's plant and supplies. Light iron and steel rails in stock.

FOR SALE. CANADIAN PATENT NO. 45,597, DATED November 22nd, 1887, for improvement in SAW SWAGES. It is the best Swage made for band saws, and will do work equal to any other for circular saws, it being very simple and cheap, and easy to operate. Send for copy of specifications and drawings to C. WARD, Patentee, Haring, Wexford Co., Mich.

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Which is specially adapted for engines and shafting, and is a saving of 50 to 75 per cent. over oils

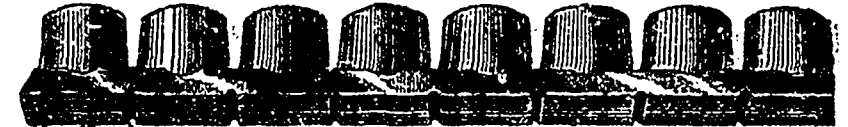
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Crown Jewel Flour—Unexcelled for Family Use.

If your Grocer does not keep it, order direct from us.

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