

SAW-MILL REFUSE.

The safe disposal of saw-mill refuse is literally a burning question, and one which in many places is really a serious one, and involves the expenditure of large sums of money. After the sawdust has been burned under the boilers in steam mills, and all that can be cut up into laths thus disposed of, there still remains a large amount of material which in one way or another must be got rid of. In earlier times the common way was by open fires maintained at a presumably safe distance from the mill, and to which the refuse had to be conveyed, often at considerable expense.

In more recent times furnaces have been specially designed, into which, by the action of machinery, the refuse is constantly discharged as fast as produced in the mill. For a large mill the furnace must be very large, and is very costly. In one case in Ontario the burner is over thirty feet in diameter, and has a total height of over 120 feet. The lower part has suitable openings for air, and for entrance for repairs when necessary. It is really an iron casing, made of wrought iron plates, and lined with brick. This is about sixty feet high, and then tapers until it is about fourteen feet in diameter, and thus is continued another fifty feet, and is crowned with a spark arrester.

The refuse is carried up about fifty feet, and is there discharged by a suitably-shaped mouth-piece, so as to scatter the refuse over the bottom of the burner. The burner cost several thousands of dollars, and has been in use for several years with great success. The spark arresting frame is made of wrought iron piping with the ends open, so that the air circulates through it, and keeps it cool. This is covered with heavy wire netting, the meshes being about one-fourth inch square.

This kind of burner is only well adapted for large mills, as it must be of considerable height to insure safety, and the height necessitates a large diameter. The two things necessary in a successful burner are: First, the prevention of the escape of burning pieces or sparks of size sufficient to cause a fire, and secondly, some means by which the heat generated may be dissipated without injury to the furnace itself, so that it might last for a reasonable time.

These ends can be attained by building a brick furnace covered in with an arch. The wall and arch should be double, with considerable space between, or have a number of flues in them. These flues should be open at the bottom, and be carried up higher than the crown of the arch, in the form of short chimneys. By this means the currents of air will carry off the heat. The flue from the furnace itself should be carried horizontally for some convenient distance, and if near water, it would be advantageous to carry it out over the water, so that any burning pieces carried by the draught might drop into the water, and thus be prevented from escaping by the chimneys.

The chimney should not be at the end of the flue, but at least four or five feet nearer the furnace. The entrance to the chimney should be as square and abrupt as possible. The object of this, while giving free vent to the escape of the smoke or heated air, anything more solid, such as pieces of burning wood, cannot turn the abrupt corner leading into the chimney but pass into the space beyond. Locomotives are now frequently constructed on this principle, having a smoke box extension beyond the smoke pipe, and into this sparks and grit from the furnace collect, instead of being driven out through the chimney, and scattering over the train, as used to be the case.

The chimney from the burner should be arranged to give ample draught, but by making the flue of same length, and by one or two bends in it, or bridge walls, the velocity of the current may be checked, and so prevent the chimney becoming too hot, and in this way an ordinary smoke-pipe may be used. Should it be necessary to put a spark arrester up, it will be found of great advantage to make the frame of it of pipe with ends all open, so that the air may freely

pass through, and so prevent the iron from becoming too hot.

The bottom of the furnace may be made with several low parallel fire brick walls to take the place of grate-bars, and doors should be provided for getting in to repair or clean, either by having heavy iron frames built in, or a better way is to form openings into the brick wall with an arch top, and built up in such a manner that the openings can be made at any time without injury to the wall.

It seems a pity that so much material, which it has taken years to produce, should be wasted, as is often done in saw-mills, and yet what else to do with refuse than burn it, involves questions not easily solved.

CASUALTIES.

A boiler in a saw mill at Springfield, Ill., exploded Aug. 30th, killing three persons. William Cookum, the third victim, died the following Saturday.

A young man named Joseph Elliott met his death near Thessalon, Ont., a fortnight ago, while engaged on the drives.

A young man named Vannasse who was employed in Mr. Booth's mill at the Chaudiere, was at work near the circular saw when he accidentally put his hand too near the saw and had two of his fingers cut off.

At Ste. Anne De Laperade, Que., Mr. Louis Barbeau, a farmer had just commenced work in a saw mill, when he was struck by a piece of wood from the saw with such violence as to kill him.

A lad of 14 named Latowier, engaged in Gilmour's mill, Trenton, was caught by the chain used for carrying the saw dust to the furnace and almost completely torn to pieces.

CORRESPONDENCE.

PRESCOTT, Sept 10th, 1888.

Editor Canada Lumberman.

DEAR SIR,—Is there a mill in the continent of America whose capacity is double that of the Gilmour mill at Trenton. An early reply will oblige.

Yours truly,

A. S. WHITING, MFG. CO.

Will some of our readers undertake to answer this query and give particulars?—Ed. LUMBERMAN.

—Taking effect September 5th, the lumber freight rate from Chicago to East St. Louis, Ill., has been advanced from 8 to 10 cents, and, in harmony with this move, rates from Chicago to various Illinois points, the rates of which are governed by the East St. Louis rate, have been advanced from 1 to 2 cents. Rates to these latter points have also been similarly adjusted with reference to points affected by the Chicago rate.

—Forest fires are reported in old cuttings in Northern Michigan and Wisconsin but we can learn of no damage as yet in standing pine. Apprehensions have been felt for the safety of a large jam of logs consisting of 100,000,000 feet or more in the upper limits of the Menominee boom, which are high and dry, will fire in the surrounding marshes, but as yet no damage is reported. Great complaint is made at the carelessness of railroad surveying parties traversing the Northern country, and whose camp fires are left to work havoc.

PATTERSON & HALL,
Lumber Dealers

Manufacturers of Dressed Lumber,

MIDLAND, - - - ONT.

T. H. GRAHAM & Co.,

MANUFACTURERS OF

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AUCTION SALE

—OF—

VALUABLE PINE TIMBER LIMITS.

The undersigned has received instructions from MESSRS. J. BELL FORSYTH & CO., of Quebec, to Sell by Public Auction, at the RUSSELL HOUSE, OTTAWA,

On Wednesday, Oct. 3rd., 1888,

Three Hundred Miles of Valuable Pine Timber Limits, situated on the Upper Ottawa River. These limits were selected by J. Bell Forsyth & Co. about fifteen years ago, and have never yet been worked. Terms and conditions made known on day of sale.

Plan of the limits can be seen and further information obtained on application to the owners, or

I. B. TACKABERRY,

Auctioneer.

79 Sparks St., Ottawa.

Valuable Pine Timber Limits
FOR SALE BY AUCTION.

The following valuable Pine Timber Limits situated in the Keepawa Territory, Province of Quebec, will be sold by Public Auction at the Russell House in the City of Ottawa, at 2.30 p.m., Wednesday the third day of October, 1888.

Berth No. 176, 50 sq. mls.	Berth No. 185, 30 sq. mls.
176, 50	185, 30
177, 50	186, 30
178, 50	187, 30
179, 50	188, 30
180, 50	189, 30
181, 50	190, 30
182, 50	191, 30
183, 50	192, 30
184, 50	193, 30

Total area 720 square miles more or less. As per licenses of 1887-88.

These Limits have never been worked on, are well timbered, and the pine is of the very best quality.

Terms and conditions made known on day of sale.

Plan of the Limits can be seen and further information obtained on application to

JOHN ROSS & Co., Quebec.

or I. B. TACKABERRY, Auctioneer,
79 Sparks Street, Ottawa.

This Space belongs to the

GEO. BISHOP ENGRAVING &

AND PRINTING CO.

MONTREAL, - - QUE.

Watch for their Advertisement
next month.

IMPORTANT TO LUMBERMEN.

IN THE ESTATE OF

Brown & Mahood, of Utterson, Ont.

Tenders are invited for the Assets of this Estate, consisting in part of about

20 Million Feet of Standing Pine; Logs Floating in Mary's and Long's Lakes, valued at about \$10,000; Shingle Mill at Port Sydney in Operation; Lumbering Utensils in Large Variety; Freehold Land and Village Property; Stock in General Store at Utterson.

Tenders will be received up to the 15th of OCTOBER NEXT for the whole interest of the undersigned in the estate, or any part thereof.

Full particulars as to the location of the timber, etc., etc., can be had on application to

ROBERT H. GRAY,

Trustee.

24 and 26 Wellington St. West,
Toronto.

Notice to Iron Bridge Builders.

Sealed Tenders, addressed to the undersigned, and endorsed "Tender for Chaudiere Bridge," will be received at this office until Friday, the 5th day of October next, for replacing the present roadway of the Suspension Bridge across the Ottawa, at the City of Ottawa, with an Iron Truss Bridge, in accordance with a specification incorporated in and forming part of a form of tender, a copy of which, together with a plan of the present structure, will be supplied to Iron Bridge Builders only, on application to the Chief Engineer.

Tenders must be accompanied by plans, specification and strain sheets of the structure proposed to be constructed, and also a description in detail of the mode or manner in which it is to be erected and put in place, as no interference with the present bridge or the traffic across the same will be permitted, except as stated in the specification, and they—the tenders—will not be considered unless made on the forms 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. GOBEIL,

Department of Public Works,
Ottawa, 10th Sept., 1888.

Secretary.



Sealed Tenders, addressed to the undersigned and endorsed "Tender for Port Arthur Work," will be received at this office until Friday, 19th October next, for the construction of a further length of Breakwater at Port Arthur, Ontario, in accordance with plans and a specification to be seen at the Department of Public Works, Ottawa, and on application to William Murdoch, Esq., Resident Engineer, Port Arthur.

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 check 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, 17th Sept., 1888.

J. J. TURNER,
Sail, Tent and Awning Maker,

251 GEORGE AND 154 KING STREETS.

PETERBOROUGH.

Canoe, Yacht and Boat Sails made to order.
Perfect Fits guaranteed.

Every description of Lumbermen's Supplies
and Waterproof Clothing.



Sealed Tenders, addressed to the undersigned and endorsed "Tender for Penetanguishene Work," will be received at this office until Friday, 19th October next, for the construction of work at Penetanguishene, Ontario, in accordance with a plan and specification to be seen at the Department of Public Works, Ottawa, and on application to H. H. Thompson, Esq., Mayor of Penetanguishene.

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, 13th Sept., 1888.

When writing to advertisers please state that you saw their advertisement in this journal.