

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/
Comprend un (des) index

Title on header taken from:/
Le titre de l'en-tête provient:

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments:/
Commentaires supplémentaires: Some pages are cut off.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12X	16X	20X	24X	28X	32X



PUBLISHED
SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION
\$2.00 PER ANNUM.

VOL. 1.

PETERBOROUGH, ONT., DECEMBER 1, 1881.

NO. 27.

FAST SAWING.

Last winter Messrs. Irwin & Boyd determined to take out their old circular in the Nassau Mills, near Peterborough, and replace it with an A No. 1, which for good fast cutting and convenience should be ahead of anything in this lumbering district of Ontario. The contract was awarded to Mr. Wm. Hamilton, of this town, and in due time the job was placed in position, and is a decided success. But as this success was not obtained without encountering some of the difficulties incidental to high speed, and not without furnishing bits of experience worth recording, we shall note a few points that may be of interest to our patrons.

GENERAL DESCRIPTION.

The mill is of a style that is heavy and strong throughout; it is also well fitted, but is not showy. The iron husk, or frame, is 9x6½ feet; saw mandrel, 4½ in. diameter; mandrel pulley, 33 in. diameter by 22 in. face; carriage shaft, 3½ in. diameter; other shafts, 3 in.; feed and gig friction pulleys, 12 in. face; belt for feed cones, 6 in.; gig belt, 10 in. The main driving belt is 16 in., of heavy leather, double and made up endless at the factory in Montreal, ready to be put on, and runs with perfect smoothness, though at the unprecedented rate of 8,000 feet per minute. The feed and gig movement of the carriage was effected primarily by a 1½ in. manilla rope, but as this had been broken several times, it was taken off and a chain used; this has also been frequently broken, but is quickly repaired. The carriage has three head blocks, one being on a detachable portion which is used only for long logs. The dogs of the other two are connected, and are operated by one convenient lever, which is weighted for the double purpose of holding the dogs in either position, and assisting in dogging. On the first head block there is a tapering attachment for setting the log either in or out. There is a friction pulley underneath the carriage which is made to operate against the back track timber while gigging, for the purpose of withdrawing the knees. The set works are on the principle of the friction bite, and, like the British bull-dog, always bites and never slips; with new retractile stop pins for stock lumber, and now adjustable scale for siding down to stock or any given dimensions; we think this makes the most exact and convenient set works we have ever seen; one man on the carriage dogs and undogs, reverses and sets without any appreciable loss of time. The journal boxes for feed and gig shafts are balanced, and each is suspended by a heavy bolt by which they can be adjusted in a moment for the wear of friction pulleys. The mandrel boxes are cast solid on the frame with large chambers underneath and around them, which provides a good circulation of air to the portions likely to become heated, or, if required, the lower apertures can be closed and the chamber filled with water. The alignment of

the saw with the carriage is made by slightly turning the whole frame, for which a ready means is provided. The true relation of all the parts to each other is thereby retained, and the pivot is so placed that the cutting side of the saw is always the same distance from the carriage. The caps of these mandrel boxes are a sham in the ordinary sense of a close fitting cap, which would serve to keep a journal warm rather than cool. These caps are much like Paddy's beaver, which had the crown hinged to one side, and had also a few convenient holes just to keep his head cool. Certainly the whole arrangement serves its purpose admirably, as the journals never rise above blood heat.

STYLE OF WORKING.

The motive power of this mill is furnished by a 66 in. Lefel wheel, working under a head of from 10 to 11 feet, so that this, in common with all water mills, is under two particular disadvantages when compared with mills driven by steam. The motion of water mills varies greatly, particularly when the power is derived, as in this case, from one wheel, and no one seems to come forward with a suitable governor, whereas, steam is easily governed. Besides, steam mills can use the steam feed, which is the most marked of modern improvements in sawing lumber. The rate of feed depending entirely upon the conditions of each particular cut, the sawyers can always make the most of them; logs can be fairly shot each way, or go at a snail's pace. With the water mill you must be always content with a good average feed. This mill was calculated for a six foot saw to run at 750 revolutions per minute; it was expected not to rise higher than 800, nor to fall at any time much below 600. On trial, however, with a five foot saw, it ran as high as 950, and fell, in cutting a large log, to less than half that speed. This was an awkward condition of things; she was both fast and slow,—at times fully at the dangerous point, and yet no good turn out of work, besides no saw could cut well under such changed conditions, and casualties were common. By a change of gearing the speed was reduced fully to the original calculation, with satisfactory results,—greater steadiness of motion and a large amount of good sawing. But as the mill was being worked from week to week, and all the bearings came to a more perfect face, with also a slight change in regard to head of water, the speed was found again to rise, the speed indicator showing 825. The six foot saw was required and put on, but not being hammered to so high a speed, it refused to do duty. The saw-maker was brought on the scene, and he advised a further reduction, which was made, bringing the speed to the neighbourhood of 700, resulting in greatly improved steadiness, less wear and tear, and good account of lumber. She would drop readily ten boards per minute. We saw this being done in the course of ordinary work.

This, for a water mill, is hard to beat. It is only the few steam mills, having steam feed, that can make a better showing; they are said to make, on special trial, as much as sixteen 16 ft. boards in one minute. A small, but by no means trifling, matter was demonstrated in regard to paper friction pulleys for feeding and gigging, that is, that their circumferential speed cannot go much beyond 2,000 feet per minute without causing excessive heat, and of course excessive wear.

Upon the whole Messrs. Irwin & Boyd may be congratulated on getting what they bargained for. They certainly have the speediest, most exact and convenient mill in this region.

TERRIBLE EXPLOSION.

EIGHT BOILERS TORN TO SHREDS AT EAST SAGINAW—FOUR CANADIANS KILLED.

EAST SAGINAW, Mich., Nov. 13.—At fifteen minutes before five o'clock this morning a battery of ten boilers in the brick boiler house attached to the saw mill and salt block of Hamilton, McClure & Co., six miles below this city, exploded with an earthquake force, scattering the buildings like chaff, and causing immense destruction. Eight of the boilers were torn into shreds, and the pieces flew in every direction, one boiler-head dropping 900 feet away. Not a brick of the boiler-house was left standing upon the other, and the large brick chimney, 100 feet high, was completely levelled to the ground. The west end of the large steam mill was torn to pieces, and the entire structure wrecked and demoralized. The large steam dome was lifted high in the air and came down on the opposite side of the mill, and bricks, pieces of iron, and timbers were thrown hundreds of feet away. Bricks and timbers were found half a mile from the mill. The salt block was badly wrecked by the explosion, timbers and iron being driven through it, and a salt drill house two hundred feet distant received a piece of boiler that shattered the tower, and another smashed in one side of the roof. It is impossible to give an idea of the tremendous force of the explosion and the destruction that followed. The boilers were fired at night to supply steam for the saw mill, and the firemen at work were all killed, not one escaping to tell the story. Michael Lebeau, head fireman, who had charge of the boiler-house, was covered in the debris, and the body was dug out an hour after the explosion occurred. Both legs were broken below the knee and the body was badly bruised. Joseph Lebeau, brother of the first mentioned, was found thirty feet distant with his right arm and shoulder broken, his abdomen crushed in, and his clothing torn off. These men were thirty-eight and twenty-three years old respectively, and resided at Zilwaukee. They came from Montreal years ago, and have relatives in Can-

ada. Frank Blanchard was blown into the bay 200 feet distant, and his body was not recovered until this afternoon. The body was badly mangled. He was a single man, twenty-five years old, and belonged to St. Onésime, Quebec. Charles Carpenter was found only a few feet from Joe Lebeau, his clothing torn off, and his body badly scalded and burned. He was a single man, twenty-seven years old, and came from Quebec. The damage by the explosion will reach \$25,000. Low water is given as the cause of the disaster.

CLASSIFICATION OF PROVINCIAL LANDS.

The CANADA LUMBERMAN in an article on "A Forest Department," in its issue of October 1st, while remarking on the antagonism which exists between the lumberman and settler, observes as follows:—Surely it would not be difficult to decide what lands should be opened for settlement, and what might be more advantageously maintained permanently as forest. Where the soil is better fitted for forest growth than agriculture, the settler should be excluded altogether, and a proper system should be adopted for perpetuating the timber growth. Thus our resources—our capital—would be utilized in the most fitting and economical manner. It is certain that mixing up settlement and lumbering has proved a failure." These remarks apply quite as well to New Brunswick as to Ontario. We have not only allowed settlers to locate themselves upon some of our best spruce and hemlock lands, but we have paid them for doing so. We entertain the view, that for the benefit of the settler himself as well as for that of the lumberman, no settlement should be made before the locality has been examined by a fit and competent officer of the Government who shall have reported on the character of the land and the kind and quantity of the timber standing upon it, since if settlers be allowed to locate themselves on spruce or hemlock lands they will be worse off at the end of a few years than when they first settled upon them.

We are sadly at a loss to know where our really good farming lands are situated, as well as regarding our spruce and hemlock lands. Since the information which the country requires regarding this matter can only be obtained by the actual examination by competent persons, we would suggest that the Crown Land Department take the matter in hand and furnish the public with the information at the very earliest date, and also that they withhold from settlement such tracts of land as may be deemed better adapted to the uses of the lumberman than for those of the farmer. This course would, we believe, be justified both by public opinion and experience, as long as we have in the Province such a vast quantity of good agricultural land still in the wilderness state.—*St. John, N.B., Sun.*

GILMOUR'S MILL AT TRENTON.

Since the burning of the old mill, Messrs. Gilmour & Co. have been doing their best to rebuild as soon as possible, but were greatly hindered in their operations by the unnecessarily long time occupied by the different companies in settling their insurance, which after much delay was finally fixed at \$48,000. As soon as this was done a number of men were set to work to tear down what was left of the mill and boiler house, nearly every vestige of which was removed.

As soon as the plans for the new mill were prepared, the contractors for the stone and brickwork at once commenced work on the foundations, which were built of huge blocks of stone, the lowest course of which was built on the solid rock. When these were finished, the boiler and engine houses and the new smoke stack were next commenced and pushed forward rapidly, and are now very nearly completed.

The engine house, which is situated a few feet west of the mill, is built of brick and will contain two new engines, the cylinders of which will be 32 inches in diameter and the length of stroke 48 inches. These engines will be connected to a fifteen inch driving shaft and will exert together over one thousand horse power.

A few feet west from the engine house is the old smoke stack, and close against this and to the west of it is the boiler room, which is built of brick, with a heavy iron roof, and is 100 feet long by 32 feet wide, and will contain sixteen tubular boilers, each of which will be four and a half feet in diameter, and fourteen feet long. The furnaces will face the bay, and will, we understand, be fed automatically with sawdust.

The new smoke stack is built close against the western end of the boiler room, and is about the same size as the old one.

The frame of the mill, which is made of heavy timbers, framed together with great neatness and exactitude, is now up and sheeted all around. The roof is on and is covered with heavy sheet iron painted over with a brownish paint. The main body of the mill is 172 feet long, by 85 feet wide, and will contain two twin circular saws, one single circular saw, three twin gangs, two stock gangs, edgers, slash tables, and a large amount of other machinery, of which we will give a more detailed account as soon as it is in running order. At the northwest corner of the mill there is a wing 75x36 feet, which will be devoted to the lath machinery, and directly opposite this, on the other corner, there is another wing 30x125 feet, in which will be placed the butting table and machinery for assorting the lumber.

The small mill is now running night and day and cutting (considering its size) a large quantity of lumber, besides giving employment to from 150 to 200 men. The capacity of this mill will be greatly increased, as soon as it shuts down for the winter, by the putting in of several of the boilers out of the old mill, together with a much more powerful engine than that used at present.

A number of alterations have been made in the planing mill and machine shops. A new boiler house 46x26 feet has been added to it. This contains a 75 horse-power engine and four large tubular boilers, which greatly increase the capacity of the shops. The small engine which was formerly used here will still be left in its place, and will be used for pumping water to supply the large tank in the yard and also to drive the necessary apparatus for lighting the entire mill with electricity. The apparatus will soon arrive, and we will furnish a detailed account of it as soon as possible. We believe it is the Company's intention to build a large sash factory in connection with the planing mill, which is now over driven on account of the large local demand for planed lumber.

The mill will be ready for operation before the opening of navigation, and will give employment to about 700 men, so that this enterprising firm will pay out in wages alone during the summer months fully \$14,000 per month, which amount will doubtless nearly all go into the pockets of the local business man.

I am indebted for much of the above information to the ever courteous and affable engineer of the establishment, Mr. R. D. Gilmour.—*Bellefonte Intelligencer.*

THE GALE OF OCTOBER 14.

In the November issue of the *Journal of Forestry* there appears a very interesting and instructive record of the terrible and almost unprecedented effects of the late storm upon trees and plantations. The editor of that periodical distributed circulars, inviting short accounts, to ascertain the general effect caused by the gale, and the fact that the replies fill some seventeen pages of the magazine demonstrates how severely the memorable storm was felt throughout the whole country. As some of the worst disasters occurred to old historical trees, that have stood for centuries on spots well known to our readers, we make the following brief extracts:—

In Windsor Park and Woods the oldest trees have suffered most, particularly the beech and elm. The pollarded oaks near Forest Gate, supposed to be from 600 to 800 years old, have been much broken in the heads. The number of trees blown down was 961, and total damaged 1,074, making in all 2,038 trees wholly or partially destroyed. At Eton, two of the fine old elms in the playing fields were blown down. These trees were planted, our contemporary says, by Provost Rouse, a Speaker in the House of Commons in the time of Cromwell. In the Forest of Dean one large old oak, 220 years old, was broken off about half way up, being decayed; and two large beech trees, about the same age, suffered similarly. In the New Forest a considerable number of decayed beeches and oaks were blown down. An ancient ash in Ashurst Wood and a notable old poplar at Boro both suffered. At Stamford an accident befell a noted old lime tree, 300 years old, and planted by "good Queen Bess." The trunk was divided into four parts about seven feet from the ground, each part as large as an ordinary tree; three of these were blown off, taking part of the trunk with them, leaving only one large and a few small branches remaining. In all parts of London the gale played sad havoc with the Park trees, as well as doing damage to buildings, &c., as reported in the daily papers. On the Work-sop Manor Estates, about 600 trees were blown down, at an estimated value of £491. Of these 100 were oak from 25 to 60 years old, and 15 elm, from 70 to 90 years old. At Birdsall, York, Lord Middleton states three of the great limes in Birdsall Avenue fell. One, though denuded of its head, measured 80 feet. In Scotland, on the Langton Estate, Dunso, the number of fallen trees reached 5,000, and a clump of magnificent beeches which had weathered the storms of 200 years at last succumbed. In Dalkeith Park, Edinburgh, a correspondent writes, it will take three months of continuous work to dissect the trees, blast or bury the roots, and repair the broken fences. On the Tynninghame Estate, Maddington, 30,000 or 40,000 trees were blown down, approximately valued at £15,000. One remarkable old beech, named the Trysting Tree, was over 300 years old. The total damage done to this estate reaches £50,000. At Floors Castle, Kelso, 800 of the finest trees were uprooted, and 200 otherwise damaged. Within a radius of four miles round Kelso some 3,000 large trees were uprooted, valued at £6,000. In Ireland, some fine old ashes and elm fell in the grounds of Antrim Castle; and in Wales many old and valuable trees were uprooted or damaged at Penrhyn Castle, Bangor, and other well known seats. "It is difficult," remarks the editor, "to point to any district where trees have not suffered severely from the effects of the gale."

LOSS BY FOREST FIRES.

The Dominion Government employs what are denominated "bush rangers," who take care of the government's timber limits. Since the great fires of last summer, bush rangers and agents have been ordered to, as nearly as possible, ascertain the amount of damage caused to timber by these conflagrations. Estimates have already been made of the loss in the Ottawa Valley, and it is placed at \$5,000,000. In the territory bordering on the Muskoka and Parry Sound districts, and thence eastward to the township along the Ottawa, little or nothing is yet known of the amount of loss. In the Muskoka and Parry Sound regions, great belts, twenty miles or more in length, and from one to five or six miles wide, were burned over, and it is asserted that the smoke of forest fires ascend-

ed from every square mile of territory from Lake Nipissing to the Severn. The loss must therefore have been great, and probably quite equal to that in the Ottawa district. Some are inclined to place the amount of loss over this wide stretch of country at only \$1,000,000, but that estimate is doubtless much too small, and may be even four or five times below the actual damage. The total loss over the entire Province is roughly estimated at from \$10,000,000 to \$15,000,000.

The great endeavor will now be to cut the scorched timber and get it into the water before the borer begins its work. Much may be saved in this way, or much may be lost by delay.

This has not been an entirely exceptional year as regards forest fires in the Dominion. Nearly, and perhaps every, year there is a heavy loss. The surveys of the new townships of Bonfield and Boulter reveal a condition of their forest lands which is common almost every where from the Georgian Bay to the Ottawa. Two-thirds of Bonfield was burned over at one time, and a portion within recent years, while one-third of the forests of Boulter have been swept away. The same story is told of all other parts of the pine country by the surveyors who have traversed them.

Taking into consideration the destructive effect of forest fires, and the settlement of the new lands for farming purposes, it is feared that in twenty years the lumber business of Canada will be a thing of the past. Already only the limited tract along the west side of the Ottawa, it is asserted, from Mattawan to Lake Temiscamingue, the wilderness, rapidly diminishing in area, that lies between the County of Peterborough and Lake Nipissing, and a portion of the north shore district, are unbroken by settlement. Half of this area contains no pine of commercial value. Under the present system of waste, one of the leading industries of the country will be crippled by its competition with districts more favored by abundance and easy access. For this reason, those interested in preserving the forests of the Dominion are calling for legal protection of the standing timber.—*Northwestern Lumberman.*

FENELON FALLS.

MR. JOHN D. SMITH, the well known lumberman having removed with his family to Port Hope, after a residence of fourteen years in this village, a number of their friends resolved to present Mrs. Smith with a piece of plate. The presentation was made at the Mansion House, in the presence of a large number of ladies and gentlemen, by Mr. H. W. Greene, Reeve of the village, who expressed the regret of the donors at the departure of herself and her husband, and their sense of the loss that would be thereby sustained by their little community. Mrs. Smith responded in suitable terms. There was subsequently a supper given to Mr. Smith at the McArthur House, in which seventy-five persons participated, including the leading men of the village and neighbourhood, the Reeve being in the chair. There were present a number of Mr. Smith's employees, thus testifying to their mutually satisfactory relations. Mr. Smith will be greatly missed from among us.

Interesting and Valuable.

The *Montreal Shareholder* says the CANADA LUMBERMAN explains by its name the special interest it devotes itself to serve. This periodical, published semi-monthly, is very ably conducted, and full of interesting and valuable matter connected with the lumber trade and the wood bearing portion of our national domains. Everyone interested in lumber should take it.

J. DAVIES & Co.

46 Church Street, Toronto.

Sells all sort of Lumber on Commission. Advances on Consignments. Prices given on application. Whole Stocks disposed on very low Commission. 12x16

MILL MACHINERY FOR SALE.

A TURBINE WATER WHEEL, 50 inches, Steam Cylinder, 12 inches, with Steam Chest, Shafting and other Saw Mill gearing. Address P. O. Box 352, Barrie, Ont. 4x24

STEAM, SAW & SHINGLE MILL FOR SALE,

WITH
111 Acres of Land, Four Frame Houses, Etc.

Plenty Timber on Black River. Or, Mill and Limits two thirds cash. 4x27

T. COOPER, Cooper's Falls, Ont.

WE HAVE

Oak, Elm, Basswood and Black Birch,

FOR SALE, to be Out this Winter, apply to

Medonte Lumber Co'y, Hillsdale

Or 32 Wellington St. West, Toronto. 2x27

WANTED.

ABOUT

25,000 Feet, First Quality

White Oak Lumber

Cut to Specification.

Address, stating Lowest Price and probable time of delivery to the

Canadian Locomotive & Engine Co.,

LIMITED.

KINGSTON, ONT. 4x27

Timber Limits & Sawmill FOR SALE.

The subscriber being anxious to concentrate and consolidate his business, on account of his age, will sell at very low prices—

1st. His Mills and Farm near the Bradford Station, Northern and No. 1 Western Railway, together with Limits in Ridout and Sherbourne.

2nd. The Portage and Canal connecting Black River with Lake St. John, and Lake St. John with Lake Couchiching, in the Township of Rama.

3rd. Eight million feet of saw-logs now in Black River.

4th. About 4,000 acres of land in different townships.

If not sold at private sale, the above will be offered to the highest bidder at some future time to be named, as I intend to close all out and concentrate in Michigan, where I now have mills.

All and any information can be had from Thompson Smith & Son, Toronto, or James Durham at Bradford Mills. 4x25

THOMPSON SMITH.



Department of Crown Lands,
TORONTO, 6TH OCTOBER, 1881.

NOTICE IS HEREBY GIVEN THAT, UNDER AN ORDER IN COUNCIL,

TIMBER BERTHS

In the undermentioned Townships in the

MUSKOKA and PARRY SOUND DISTRICTS,

Will be offered for Sale by Public Auction at the Department of Crown Lands at twelve o'clock noon.

On TUESDAY, the 6th day of December next,

viz.:—Townships of Mowat, Blair, McConkey, Hanly, Patterson, Mills, Sinclair, Bethune, Proudfoot, Gurd, Macfar, Strong, Joly, Laurier, Pringle, Lount, Nipissing and Himswoorth.

The area to be disposed of in the above Townships as Timber Berths is upwards of 1,400 square miles, and to suit all classes of purchasers each Township will, as nearly as practicable, be divided into four berths.

Sheets containing conditions and terms of Sale, with information as to Area and Lots and Concessions comprised in each Berth, will be furnished on application personally or by letter, to the woods and forests branch of the Department, or to the Crown Timber Office at Ottawa, Belleville and Quebec, and the Office of T. E. Johnston, Esq., Parry Sound.

T. B. PARDEE,
COMMISSIONER

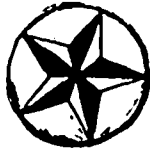
F. H. DIXON & CO.

MANUFACTURERS OF PURE BARK TANNED

LEATHER BELTING



First Prize, Provincial Exhibition..... Ottawa, 1875
 First Prize, Provincial Exhibition..... Hamilton, 1876
 First Prize, Provincial Exhibition..... London, 1877
 First Prize, Industrial Exhibition..... Toronto, 1879
 First Prize, Industrial Exhibition..... Toronto, 1890
 International Medal, Centennial Ex..... Philadelphia, 1876



None genuine unless with a STAR on the head of rivets. Send for Price Lists and Discounts.

81 Colborne Street, Toronto

The Strength of Wood.

At the late fair of the Massachusetts Charitable Mechanics' Association, held at Boston, there were exhibited interesting tests of constructive material, among those, of pine columns, which had, in some instances, supported remarkable pressure. One of these columns, originally twelve feet long, yielded to a pressure of 190,000 pounds; the weak spot being a large knot, which acted as a wedge, and caused the destruction of the column at less than the proper figures for a sound piece. Another column was twelve feet long, and tapering from seven and three-fourths to six and a half inches in diameter. This stick showed its weakest point at the smaller end, the crumbling of the fibres taking place in that part. A seasoned hard pine girder, eleven inches square and ten feet long, bore the astonishing load of 751,000 pounds.—*Northwestern Lumberman.*

How to Use Oil Stones.

Instead of oil, which thickens and makes the stones dirty, a mixture of glycerine and alcohol is used by many. The proportions of the mixture vary according to the instrument operated upon. An article with a large surface—a razor, for instance—sharpens best with a limpid liquid, as three parts of glycerine to one of alcohol. For a graving tool, the cutting surface of which is very small, as is also the pressure exercised on the stone in sharpening, it is necessary to employ glycerine almost pure, with but two or three drops of alcohol.

A WORLD OF GOOD.—One of the most popular medicines now before the American public is Hop Bitters. You see it everywhere. People take it with good effect. It builds them up. It is not as pleasant to the taste as some other Bitters, as it is not a whiskey drink. It is more like the old fashioned bone set tea that has done a world of good. If you don't feel just right try Hop Bitters.—*Nunda News.*

A POPULAR REMEDY—Hayard's Pectoral Balsam is one of the most deservedly popular remedies for the cure of cough, croup, bronchitis, and all pulmonary complaints. For sale by all dealers.

People have no moreright to become dyspeptic, and remain gloomy and miserable, than they have to take poison and commit suicide. If the stomach becomes weak and fails to perform its functions, Burdock Blood Bitters will speedily remedy the trouble.

WHAT EVERY ONE SAYS MUST BE TRUE.—And every one who has tested its merits speaks warmly in praise of Hayard's Pectoral Balsam as a positive cure for all throat and lung complaints, coughs and colds, sore throat, bronchitis and incipient consumption.

A REAL NECESSITY.—No house should be without a bottle of Hayard's Yellow Oil, in case of accident. There is no preparation offered to suffering humanity that has made so many permanent cures, or relieved so much pain and misery. It is called by some the Good Samaritan, by others the Cure-all, and by the afflicted an Angel of Mercy.

NO IMPOSSIBILITY.—People often say, when suffering in the first stages of Consumption, or suffering from lung disease, if their physician fails to effect a cure, "my case is a hopeless one, and my enjoyment of health again is an impossibility." The celebrated French Count Mirabeau's nasty temper is well known. "Monsieur le Comte" said his secretary to him one day, "the thing you require is impossible." "Impossible!" exclaimed Mirabeau, starting from his chair, "never again use that foolish word in my presence." It is well-known that N. H. Downs' Vegetable Balsamic Elixir has brought to health and strength thousands who were told by doctors that their recovery was impossible. Be not deceived by any apparent impossibilities; always use the Elixir.



CANADIAN PACIFIC RAILWAY.

Emory's Bar to Port Moody.

NOTICE TO CONTRACTORS.

Tender for Work in British Columbia.

SEALED TENDERS will be received by the undersigned up to NOON on WEDNESDAY, the 1st day of FEBRUARY next, in a lump sum, for the construction of that portion of the road between Port Moody and the West-end of Contract 60, near Emory's Bar, a distance of about 85 miles.

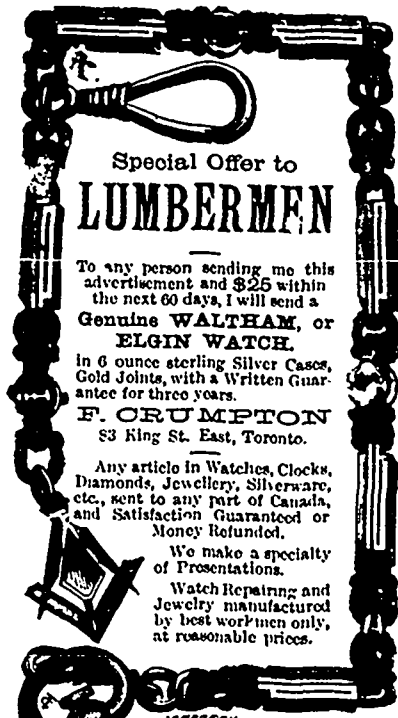
Specifications, conditions of contract and forms of tender may be obtained on application at the Canadian Pacific Railway Office, in New Westminster, and at the Chief Engineer's Office at Ottawa, after 1st January next, at which time plans and profiles will be open for inspection at the latter office.

This timely notice is given with a view to giving Contractors an opportunity of visiting and examining the grounds during the winter season and before the winter sets in.

Mr. Marcus Smith, who is in charge at the office at New Westminster, is instructed to give Contractors all the information in his power.

No tender will be entertained unless on one of the printed forms, addressed to F. Braun, Esq., Sec. Dept. of Railways and Canals, and marked "Tender for C. P. R."

F. BRAUN, Secretary.
 Dept. of Railways and Canals, }
 Ottawa, Oct. 24th, 1881. }
 12410 7625



Special Offer to LUMBERMEN

To any person sending me this advertisement and \$25 within the next 60 days, I will send a Genuine WALTHAM, or ELGIN WATCH.

In 6 ounce sterling Silver Cases, Gold Joints, with a Written Guarantee for three years.

F. CRUMPTON
 83 King St. East, Toronto.

Any article in Watches, Clocks, Diamonds, Jewellery, Silverware, etc., sent to any part of Canada, and Satisfaction Guaranteed or Money Refunded.

We make a specialty of Presentations.

Watch Repairing and Jewellery manufactured by best workmen only, at reasonable prices.



MONTREAL SAW WORKS

MONTREAL,

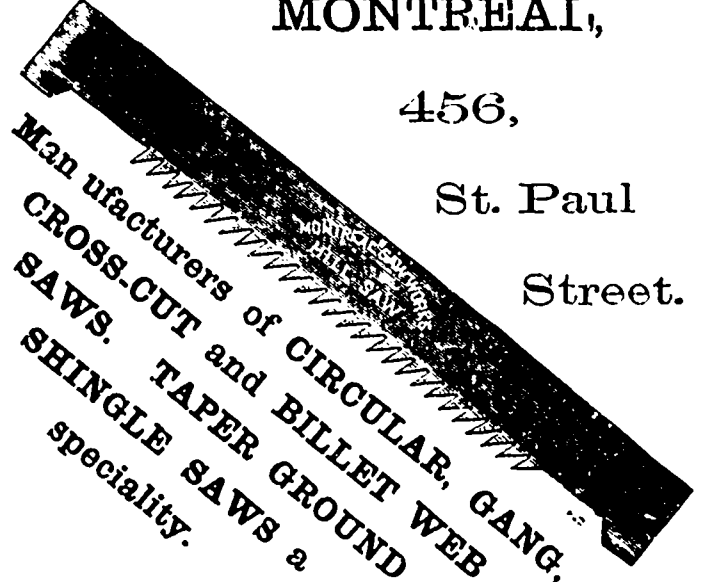
456,

St. Paul

Street.

General Mill Supplies always on hand.

General Mill Supplies always on hand.



All correspondence address to Chas. M. WHITLAW, Sec.

ADAM MCKAY

MANUFACTURER OF

Steam Engines and Boilers,

AND ALL KINDS OF MACHINERY.

Locomotives, Stationery and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES.

124-ly

144 Upper Water Street, HALIFAX, N.S.

C. H. FLEWELLING

Engraver on Wood

And ELECTROTYPY.

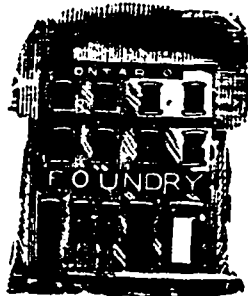
46 King Street, ST. JOHN, N.B.

NEWEST DESIGNS AND BEST WORK.

124-ly

MACHINE CUTS A SPECIALTY.

ONTARIO ELECTROTYPE AND STEREOTYPE FOUNDRY.



Having added the Latest Machinery to my Foundry, and secured the services of a MOST EFFICIENT STAFF OF AMERICAN SKILLED WORKMEN, I am prepared to execute all orders with Promptness. Satisfaction guaranteed.

The Work Produced at my Foundry is acknowledged to be equal to any in the United States, and Superior to any in Canada.

Orders from the Country Promptly attended to. Please address all Orders to

R. SMITH, 26 & 28 Colborne Street, Toronto.

A. LEARMONTH & Co.

ENGINEERS AND FOUNDERS,

MANUFACTURER OF

Steam Engines, Rotary Pumps, of all sizes, for Paper and Pulp Mills, Steam Pumps, and a Variety of other Pumps, Propeller Engines for Yachts & Tow Boats.

124-ly

Iron Railings, Hoisting Machines for Stores, Jack Screws, Park Mills, all kinds of Machinery for Mines, Saw Mills, Flour Mills.

St. Paul St.,

QUEBEC.



FIRES IN OUR PINE FOREST.

10,000,000 WORTH OR MORE OF PINE DESTROYED THIS YEAR IN ONTARIO.

Not for many years has fire made such havoc among the pine forests of the country. The extent of these fires is, however, not known, and cannot be approximately ascertained until the agents and bush rangers in the employ of the Ontario Government make reports upon the subject. It is known that thousands of square miles of territory have been burned over along the Ottawa, in the back townships north of Lake Ontario, and through Muskoka and Parry Sound. Much of this burnt land has consisted of farms, woods from which the pine has been stripped, and pine areas previously destroyed by fire.

THE LOSS BY LAST SEASON'S FIRES.

Of the very great destruction which must have occurred throughout the whole unsettled territory lying along the eastern borders of Parry Sound and Muskoka, and thence eastward to the townships along the Ottawa, little or nothing is known. Estimate has been made of the loss in the Ottawa Valley, and it is placed by some at \$5,000,000. In Muskoka, and Parry Sound great belts, twenty miles or more in length, and from one mile to five or six miles wide, have been burned over; and according to one gentleman, well acquainted with the districts, the smoke of bush fires has ascended from almost every square mile of territory from Lake Nipissing to the Severn. The magnitude of the loss must therefore have been great, and not improbably quite equal to that along the Ottawa. Yet some almost place it as low as one million dollars. That figure may not be too small on the lowest calculation of the value of the uncut trees to the lumbering companies. But the actual value may be four or five times as much. Along the north shore of Lake Huron the damage from fire has not been so great as it was supposed to be during the prevalence of the fires, but this may apply only to the narrow strip of territory traversed in summer by lumbermen and others. The total loss over the whole Province may be variously estimated at from ten to fifteen million dollars.

CUTTING DEAD TREES.

Much may yet be saved by prompt cutting of the scorched timber, and most of the trees in the burned districts are merely scorched. If these trees be cut down this winter the borer, which invariably attacks dead trees in the summer season, can do no harm, and they will be suitable for lumber, but otherwise the timber will be rendered useless. The cutting of these trees, situated in many instances where access and removal are difficult, can not be expected, so that nearly every one of the few hundred thousand pine trees burned, more or less, last summer, may be considered a total loss.

THE ANNUAL LOSS BY FIRE.

The average annual loss by fire cannot well be estimated even approximately, and if one million dollars be roughly stated as an amount more probable than anything lower, the figures large as they are, can scarcely be considered too high. The surveys of the new townships of Bonfield and Boulton, of which notice has been taken in the *Globe*, reveal an aspect of the forest lands which is common almost everywhere from the Georgian Bay to the Ottawa. Two-thirds of Bonfield has been burned over at one time and another within recent years, while Boulton has suffered from the sweeping away of one-third of its forest. The same story is told of all other parts of the pine country by the surveyors who have traversed them. Much of this destruction has been done where the lumberman and the trapper were, till recently, the only human beings who traversed the wilds. When the pioneer settler entered the danger increased, and the pine has only an even chance of survival till the lumbermen can turn it to commercial account.

EXTINCTION OF THE LUMBER TRADE THREATENED.

Settlements have now been formed in most parts of the pine country, and for twenty years at the present rate of progress there will scarcely be the area of a township left unpenetrated by the hardy pioneer. Twenty years later the lumber business may be a thing of the past, so far as Ontario is concerned, unless an efficient system be adopted of protecting the forests. Already only the limited tract along the west

side of the Ottawa from Mattawan to Lake Temiscamingue, the wilderness, rapidly diminishing in area, that lies between the county of Peterborough and Lake Nipissing, and a portion of the north shore district are yet unbroken by settlement. Half, perhaps much less than half, of the area contains no pine of commercial value; so that under the present system of waste, not only may an important source of Government revenue be greatly diminished within a decade or two, but one of the leading industries of the country will be crippled in its competition with districts more favoured by abundance and easy access. The replanting of trees can do little to remedy the mischief, as one hundred and fifty years are required, so it is said, for a pine to reach maturity. That length of time being necessary to produce good marketable timber, it will be seen, if viewed in connection with the progress of settlement and the increasing demand for lumber, that less than one per cent. of our forest trees can be allowed to be cut down or burned if the province hopes to preserve a permanent lumber industry and a Government revenue therefrom.

PROTECTION AGAINST FIRE.

In 1878 the Ontario Legislature introduced better regulations than theretofore had been in use for the prevention of forest fires. The fire district of Ontario, as constituted by the Act, includes a large area; the boundary in the southern part extends from Bruce Mines along the north shore and the Georgian Bay to Midland, then across Lake Couchiching to thirty miles north of Kingston, where it turns northward to Allumette Island, and follows the course of the Ottawa to Lake Temiscamingue. In this district fires are placed under considerable legal restriction. No fire is to be kindled in or within half a mile from the woods, between the 1st of April and 1st of November, except for clearing land, cooking, obtaining warmth, or some industrial purpose. In building any such fires a locality is to be selected where there is the smallest quantity of vegetable matter, dead wood, branches, brushwood, dry leaves, or resinous trees. The place where the fire is to be lighted is then to be cleared of all dead vegetation for a space of ten feet around, and every care is to be taken to prevent the fire from spreading, and it must be extinguished by the parties kindling it before they leave the spot. The pains and penalties of the Act lie on the head and pocket of him who throws or drops a burning match, the ashes, of a pipe or a lighted cigar in this sixty thousand-square-mile tinder-box. The wadding of a firearm must also be looked after or the law will pounce down on the neglectful sportsman.

CAMPING PARTIES.

One section of the Act bears severely on some of the parties who leave Toronto and other towns for an outing near the northern waters. Whether such parties consist of one or more persons they must have a recognized head, if for no other purpose than the purposes of this Act. Such head must carry a copy of the Act with him among his other baggage, and once a week must call his men together and read the Act aloud in their hearing, and also explain it to them. If a man go out alone, it is presumed that he will call himself together and read the Act aloud—a wise provision of the law for the evolution of lawyers, clergymen and stump orators. It would be interesting to know how many pleasure parties have observed this section and escaped liability to the penalty of \$50 and costs, or three months in gaol imposed for its violation.

An important section refers to the locomotive engines passing through the fire district. Such engines must have all the most approved and efficient means of preventing the escape of fire from the furnace or ash-pan, and the smoke stack is to be provided with a bonnet or screen of iron or steel wire netting, containing in each square inch eleven wires each way at right angles to each other. The duty of seeing that these appliances are used is especially given to the driver of the locomotive. The penalty for contravention of the Act is fifty dollars and costs of prosecution, and in the case of railway companies one hundred dollars and costs for each offence; this latter penalty to be recovered by suit in any court of competent jurisdiction. Every suit for recovery of a penalty must be

commenced within three months after the contravention complained of.

THE LAW A DEAD LETTER.

As every one acquainted with the forest territory knows, this Act is almost a dead letter. The reason is that practically no one is responsible for its enforcement. Successful prosecution of a suit entitles the complainant or prosecutor to one-half of the fine and costs, and while any person can appear as prosecutor, the duty is said to attach especially to Crown Land Agents, Woods and Forest Agents, Free Grant Agents, and bush-rangers. These men are unlikely to incur the odium of instituting a prosecution which may bring them a direct pecuniary benefit. The same thing has been tried in the liquor law and found wanting. The difficulty is increased by another cause. In these sparsely settled districts it is not easy to discover the offender in one case out of a dozen, for the Government agents are not numerous, while the bush-rangers, whose duties are the measurement of the ties cut by the lumberers, necessarily do their work in the winter, and in summer attend to private business.

A MORE EFFICIENT LAW REQUIRED.

The remedy may partly lie in investing Crown Land or Free Grant agents with power on dry seasons to prohibit the kindling of clearing fires, and at all times in the summer months to require every party about to start a fire to first obtain written permission. Bush rangers should be more numerous, and their special duty in summer should be to constantly scour their districts in search of fires. In this way every party camping out would be known to the rangers, and it would be comparatively easy to fix any contravention of the Act on the right parties.

The regulation regarding locomotives might be made to apply throughout the whole Province, for the past season's record shows that some of the most destructive fires occurred beyond the fire district, and were caused by sparks from passing engines.

The hope is expressed that the Government will instruct its agents to make full reports of the extent of the damage done by fires during the past season, and the causes, as far as can be ascertained, of each fire.—*Globe*.

THE GREAT FOREST FIRE.

A DISTRESSING TALE FROM THE BURNT MICHIGAN DISTRICT BY A FORMER PETERBOROUGH MAN.

The following letter appeared in the Peterborough Review:—

DEAR SIR,—Having received a number of communications from old friends from Peterborough and other localities since the fire of September 5th, in regard to our welfare and the particulars in regard to the fire, and as the impression is quite general that we were burned up, allow me through the columns of your paper to state that such is not the case. Myself and family were all burnt more or less, but thanks to the Great Ruler of the Universe, our lives were saved, while others all around us perished in the flames, every thing that we had was consumed, not one dollar worth was saved except what we had on our persons and even that was torn from our backs to save us from burning. We sought refuge in a corn-field and remained there from 1 until 6 o'clock p.m., with the air so heated and the smoke so dense that breathing was very difficult. Our only relief was lying with our faces on the ground and covering ourselves with the grain stocks. Let me here state that there are hundreds of people in the burned district to-day that are losing their hair by reason of the extreme heat. At times it was as dark as night, and the darkness was the cause of many deaths, as the people could not see the way to escape from the flames. The fire reached my place about 1 o'clock, and was one broad extended sheet of flame as far as the eye could reach, and as it was blowing a gale at the time, it travelled a distance of twenty-one miles in less than one hour and swept everything before it, leaving death and destitution in its wake. There were thousands of acres of land upon which it did not leave a living thing of any kind, not even one splint of grass. Mr. editor, could you have travelled over that space of ground on the following day, you would have witnessed some of the most heartrending scenes that it is possible for the eye to behold. Whole families clustered together, some burned to a cinder and

others partially burned, writhing and groaning in their agony, crying and begging for relief, when death alone was the only relief possible for them. Such my friends were some of the scenes witnessed by those that were so fortunate as to save their lives, and which has left an impression upon their minds that time will never efface. As regards our present welfare I may say that we have "thanks to the good people of our land" enough to eat and clothes enough to wear at present. The great trouble will be to get food for our horses, as there is not any in the country and it will have to be shipped from a distance and in all probability many will perish for want of it. By inserting the above you will confer a great favor.

I remain yours &c.

HENRY LAWSON,

Bad Axe, Michigan, Nov. 7th, 1881.

THE FORESTRY WORK OF THE TENTH CENSUS.

Up to the present time there has been but a vague conception of the extent and value of one of the most important sources of the prosperity of the United States. It seems the more strange when it is considered that this great item in the nation's assets is not buried in the earth, like its mineral wealth, but stands proudly on the surface, like a mighty host, seen of all men. The entire welfare of a country is more identified with the forests that cover it than with any other feature of the earth's surface. The trees are the kindest friends of the soil; they are the guardians of its fertility; they protect the fields from devastating floods, and cherish the springs that feed the streams. Without them the land becomes an arid desert, and its people are debased to barbarism and poverty. Great desolated tracts in Asia, Africa and along the eastern Mediterranean were once blooming and garden like, but when the trees were cut away the dryads avenged themselves. Therefore it is fitting that in the grand taking account of stock in the national storehouse that occurs every decade, the forest wealth of the country should at last be accorded its proper place.

Although the statistics concerning the forests of most of the European countries are generally full and accurate, the institution of the forestry division of the 10th census of the United States forms the first attempt to obtain such information by means of the census work of any country. In laying out the work of his bureau, Gen. Francis A. Walker, the superintendent of the census, decided to undertake an investigation into the extent of the forest covering of the country as related to agriculture; into the forest wealth as related to manufacture, to railway transportation, and to the domestic supply of fuel; and into the operations of the lumbering industry as pursued in the principal districts of cutting and export. The scope of the investigation comprises the chief characteristics of the forest flora of each section of the country, an account of the various woods in the adaptation to industrial and domestic uses, and the methods in vogue in the various parts of the country for the protection or restoration of the forest growth.—*Sylvester Baxter in November Atlantic*.

A Long Trestle.

The *Chattanooga Times* says:—Fletcher Wescenberg & Co. have been awarded the contract for building a trestle across Lake Pontchartrain and approaches. The trestle will be twenty-five miles long, and the contractors bind themselves to finish it in one year.

The contract is the largest timber contract ever before awarded in the south. It will amount to at least 1,250,000. Thirty million feet of lumber and seventy-five car loads of bolt, 1,500,000 pounds will be used in building this trestle. All timbers which will go in water will be creosoted; creosote works will be erected at once near the lake at a cost of \$75,000.

The works are on the line of the New Orleans and North-Eastern railway, the extension of the Vicksburg and Meridian railway to New Orleans. The rest of the work is now under contract, as well as the road from Monroe to Shreveport, and is to be finished within a year, at which time the Erlanger system, extending from Cincinnati to Shreveport and New Orleans will be intact.

SOME FAMOUS TREES.

A poplar tree in Waukesha, Wis., is attracting attention by its being completely covered with small insects resembling caterpillars. In some places they are two inches thick.

In the old Rogers burying ground near Chatham, N. C., an oak tree has grown on a grave in which a person was buried seventy-five years ago, and the tree is now five feet in diameter.

In Lewis County, Ky., a mammoth tree was recently cut that is believed to have been 300 years old. It was 16 feet in diameter, 190 feet high, and yield 33,452 feet of lumber and 25 cords of wood.

In the village of Noelditz, Saxony, is an oak whose aged and infirm branches are propped up all around by beams. Its trunk has been used many years as a burial vault. Its lower part, which measured 14 ells in circumference, is hollow, and the aperture to this great cave is closed by lattice work of iron bars. Through this sort of window the unsuspecting stranger who is first led to take a peep perceives with amazement the skeleton of a man seated in the middle of the hollow. It is the skeleton of the Lord of Wintersheim, who died about a century ago, and whose choice of this singular mode of sepulture is very minutely described by the inevitable guide who shows the place.

A correspondent of the San Francisco Examiner, in speaking of the big trees of Calaveras County, says:—"The stump of one of these trees a ball-room three feet across is built, and it requires a ladder eighteen steps to ascend to the top of the log, on which was built a ten-penny alley. It has been burned up, but the old, charred monarch of the forest still remains. Think of it—a hollow log, through which one can ride on horseback 100 feet and come out through a knot hole! There are some ninety of these big trees measuring from 50 to 100 feet in circumference, and reaching up the skies—from the rings that denote the annual growth of these trees, science has estimated some of them to be 4,000 years old, while they stand over the fallen bodies of much older growth, covered over with earth and large growing trees, as it is one of the peculiarities of this timber not to decay. It appears to be a species of red-wood."

Mississippi River Reservoirs.

The plan of providing reservoirs near the headwaters of the Mississippi river, as a source of supply in seasons when the river is at a low stage, has for a long time been in contemplation. It is now likely to be practically tested. Congress in 1880 made an appropriation of \$75,000 for a dam at Lake Winnepigoshish, and last spring made an additional appropriation of \$150,000 for the same purpose. The enterprise for some months was halted because Congress failed to provide means for estimating the amount of damage to lands that the overflow would cause; but that matter has now been overcome by an ordinary appraisal, and the work is likely to go on, and the dam at Winnepigoshish will be constructed at an early day. It is not expected that this one structure will have any appreciable effect upon the water in the Mississippi river. But it will solve certain problems in practical engineering, and the extent to which it may be made to control the water passing through it, will be looked upon as a test of the efficiency of the general system. If the work about to be constructed prove a success, as there seems no good reason to doubt, a few more years will bring the extension of the system over enough of the territory near the river's source to graduate the amount of water in its channel, and with a corresponding improvement of the channel, assure the long-wished for navigation by large boats through the whole of the open season.—*Northwestern Lumberman.*

Belts.

Leather belts will last double the usual time if treated with castor oil; they will bear proof, they will always remain flexible, and will not crack. A belt four inches wide will be equal to one six inches wide which has not been oiled. It requires twenty-four hours to penetrate the leather. If used sooner the greasiness will make the belt slip.

PARQUETRY FLOORING.

The demand for parquetry floors is continual on the increase. They take the place of carpets for covering the coarse boards of ordinary flooring, and are made by ingeniously mortising together different kinds of wood. Most of this flooring is made seven-eighths of an inch thick, and what is known as "wood carpet" is made only about one-fourth of an inch in thickness. The principal body of parquetry work is oak, in different shades, but every kind of cabinet wood is used—mahogany, tulip, walnut, cherry—all furnishing a variety of shades, which when properly set, harmonize with agreeable effect. The entire mosaic, when mortised and joined, can be lifted without injury.

Nothing neater and more refined can be found for a floor covering to a room than a center rug or carpet, either in the shape of a square or parallelogram, and surrounded on all sides by a neat pattern in wood. If one wishes to practice closer economy he can cover the space occupied by the carpet, the piano, stages, or other large pieces, with plain wood the thickness of the parquetry wood. The surface, polish of the wood must be maintained to retain the beauty and finish of the floor. Waxing is often sufficient, or a vigorous application of shellack varnish.

The origin of this style of flooring can be traced back to the early history of western Asia. The material used was usually marble. From those early days to the present changes have taken place. Wood has succeeded stone, and the jig-saw the chisel. For some time past, parquetry work has been successfully used in Germany, France and lately in England; and in this country, although new at present, we predict for it great popularity. In our American homes parquetry flooring is particularly adapted for backgrounds to rugs or square carpets.

Next Winter's Operations.

A correspondent of the *Globe* gives the following estimate of the probable cut of logs in the Georgian Bay district, during the season upon which we are entering, viz:—

	Square ft.
Penetanguishene Mills	20,000,000
British Canadian Lumber Co.	25,000,000
Other mills at Midland Bay	14,000,000
Georgian Bay Lumber Co.	35,000,000
Parry Sound Lumber Co.	20,000,000
Quelph Lumber Co., Parry Sound	15,000,000
Magnetawan Lumber Co.	30,000,000
Muskoka Lumber Co.	25,000,000
Victoria Harbour	15,000,000
Collingwood Lumber Co.	10,000,000
North Shore Mills	20,000,000
Mills along Victoria Railway, not included above	70,000,000
Mills along Midland Railway, not included	120,000,000
Other Mills	14,000,000
Total	434,000,000

HUMBLED AGAIN.—I saw so much said about the merits of Hop Bitters, and my wife who was always doctoring, and never well, teased me so urgently to get her some I concluded to be humbled again; and I am glad I did, for in less than two months' use of the Bitters my wife was cured and has remained so for eighteen months since. I like such humbugging.—H. T., St. Paul.—*Pioneer Press.*

THE SADDEST OF SAD SIGHTS.—The grey hairs of age being by sight with sorrow to the grave is now, we are glad to think, becoming rarer every year as the use of Cingalese Hair Restorer becomes more general. By its use the scanty locks of age once more resume their former color, and the hair becomes thick and luxuriant as ever; with its aid we can now defy the change of years, resting assured that no Grey Hair at any rate will come to sadden us. 50 cents per bottle.

HONESTY.—It is commonly said that you cannot make an honest man believe that white is black and vice versa, but those who have grey hair by using the "CINGALESE HAIR RESTORER" will find that this apparent difficulty is easily overcome. 50 cents per bottle.

DYSPEPSIA, that all prevalent disease of civilized life, is always attended with a disordered sympathetic system and bag secretions, and no remedy is better adapted to its cure than Burdock Blood Bitters taken according to the special directions found on every bottle.

Gray spent seven years in perfecting his "Elegy," but the time required to get a box of Esterbrook's Steel Pens is just long enough to send to the nearest stationer. Wholesale by Brown Bros., Toronto.

RESPECT.—The Grey Hair of old age demand and should receive respect, but the Grey Hairs of young people require attention—in the way of using Cingalese Hair Restorer. 50 cents per bottle.

E. S. VINDIN,
Commission, Shipping, Forwarding and
General Agent.
LUMBER MERCHANT
Office, Tempest's Block, Port Hope. L11

Caledonian Hotel,
GRAVENHURST.

JOHN SHARPE, Proprietor. This Hotel has been newly opened out, pleasantly situated on Main Street, within five minutes walk of Northern Railway station. Bar kept with best assorted Wines, Liquors and Cigars. Every attention paid to guests. Good Stabling. L11E

Simcoe House,
CORNER FRONT and SIMCOE STS.
TORONTO, ONT.

Best accommodation in the City. TERMS \$1.50 and \$1.00 per day, according to Location of Rooms. L11E
WILLIAM HANCOCK, Proprietor.

The American Hotel,
BARRIE, ONT.

Collier Street, Adjoining the Market.
RATES REASONABLE, CENTRAL LOCATION,
FREE BUS TO AND FROM ALL TRAINS.
Every accommodation for Commercial and LUMBERMEN.
W. D. McDONALD, Proprietor. L14

FRANCOIS MARCHAND,

Manufacturer of all Descriptions of
STEAM BOILERS,
SHIPS WATER TANKS, Etc.
St. Roch Street, 12/24 QUEBEC, P. Q.

CANADA TRUSS FACTORY

(ESTABLISHED 1856.)

F. G. GROSS,

Manufacturer of SURGICAL and ORTHOPAEDICAL INSTRUMENTS. ARTIFICIAL LIMBS made to order. INDIA RUBBER GOODS of every description. L10-1y
688 and 690 Craig Street, Montreal.

P. PAYETT'S NEW IMPROVED

Adjustable Saw Guide!

Can be adjusted without danger. You can take your saw off without taking the guide off the frame.

All kinds of Brass & Iron Casting

PLAINING and TURNING done with Despatch. For particulars address:

CRAIG & CAMERON,
PENETANGUISHENE. 1y-L17

ROBERT SMALLWOOD

MANUFACTURER OF

**The Patent Lever Feed Shingle,
Box Board & Heading Machine**

(Always takes First Prize.)

Rotary Saw Mills

IN FOUR SIZES, and other

**MACHINERY for SAW and
GRIST MILLS.**

SEND FOR CIRCULAR. L24-1y

CHARLOTTETOWN,

Prince Edward Island



Burdock Healing Ointment should be used in connection with Burdock Blood Bitters for curing Ulcers, Abscesses, FEVER, SORES, &c. Price 25 cents a box. T. MILBURN & CO. SOLE AGENTS, TORONTO

Flexible Board Rules,

With Steel Head, either Cleveland or London make, at \$1.75 Each.

GEORGE STETHEM,
PETERBOROUGH. L10

J. G. EDWARDS

HARDWARE MERCHANT,
LINDSAY.

BELTING, FILES, BABBIT METAL,
CHAINS, ROPE, and
LUMBERING SUPPLIES. L17

WANTED.

Cherry, White Ash, Black Ash, and
Dry White Pine Lumber.

Quote Price delivered, and Carefully
Describe:—Quality, Widths, Length,
Thickness, and how long Sawed.

ROBERT C. LOWRY,

Wholesale Lumber,
12/10 65 Pine Street, New York.

SAMUEL WINDRIM,

MANUFACTURER OF

Agricultural Implements, Etc
MILLBROOK, ONTARIO.

HAVING DISPENSED WITH THE SERVICES OF AGENTS, I take this opportunity to bring to the notice of intending purchasers of Reaping Machines, that I have now on hand a quantity of the Celebrated

HANLAN REAPER,

which has NEVER BEEN BEATEN YET, and am prepared to allow the Agents commission—FIFTEEN PER CENT—on all purchases. L17E

WISDOM & FISH

IMPORTERS AND DEALERS IN

Rubber and Leather Belting

RUBBER HOSE, STEAM PACKING,
LUBRICATING OILS, COTTON WASTE

Wrought Iron Pipe and Fittings,

And all Articles used in the Application of Steam to Machinery.

No. 41 Dock Street, St. John, N. B.

(SMALL'S BLOCK.)

N.B.—Estimates for Steam and Hot Water Heating Apparatus furnished on application. All work Warranted. 1y-L20

THE KEY TO HEALTH.



Unlocks all the clogged avenues of the Bowels, Kidneys and Liver, carrying off gradually without weakening the system, all the impurities and foul humors of the secretions; at the same time Correcting Acidity of the Stomach, curing Biliousness, Dyspepsia, Headaches, Dizziness, Heartburn, Constipation, Dryness of the Skin, Dropsy, Dimness of Vision, Jaundice, Salt Rheum, Erysipelas, Scrofula, Fluttering of the Heart, Nervousness and General Debility; all these and many other similar Complaints yield to the happy influence of BURDOCK BLOOD BITTERS.

Sample Bottles 10c, Regular size \$1.

For sale by all dealers.

T. MILBURN & CO., Proprietors, Toronto

Travelling Agent.

MR. A. I. W. BEGG has been appointed agent for the CANADA LUMBERMAN, and is authorized to collect subscriptions and grant receipts therefor and to make contracts for advertisements appearing in its columns.



DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY
TOKER & Co. PETERBOROUGH.

Terms of Subscription:

One copy, one year, in advance \$2 00
One copy, six months, in advance 1 00

Ad. rising Rates:

Per line, for one year \$0 60
Per line, for three months 30
Per line, for six months 45
Per line, for each subsequent insertion to 3 mo's 10
Per line, for each subsequent insertion to 6 mo's 5
Cards not occupying more than 12 lines (1 inch) per annum 8 00
Cards not occupying more than 12 lines (1 inch) for six months 5 00
Cards not occupying more than 6 lines per annum 5 00
Cards not occupying more than 6 lines, for 6 mo's 3 00

Special rates will be made for page, half page and column advertisements.

Advertisements intended for insertion in any particular issue should reach the office of publication at least three clear days before the day of publication, to insure insertion.

All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. DEC. 1, 1881.

A PROPOSITION has been made to establish a woodenware factory in Lindsay.

THE Medonte Lumber Company have made preparations for getting out 4,000,000 feet of pine this winter, in addition to a large quantity of oak, elm, basswood, and black birch.

WE would direct the attention of consumers of hardwood lumber to the advertisement of the Medonte Lumber Co., and the manufacturers of the same article to the advertisement of the Kingston Locomotive Works, both of which will be found in another column.

A Log 30 feet long and 57 inches in diameter was sawed into inch planks at the Seattle Lumber and Commercial Co.'s mill. Some wide planks were needed for the Reinig-Voss building, and this log was used to fill the special order. The stick scaled 4,663 feet, and probably contained 5,000 feet of lumber.

THE Hon. Mr. Joly, in a recent election speech at Montreal, said:—"Mr. Chapleau endeavored to show that the Province was in a prosperous state, and as a means of establishing that position he spoke of the \$700,000 received from Crown lands as legitimate revenue which they had a right to depend upon. This was not so. It took a pine tree 400 or 500 years to grow, and the money realized by the sale of timber from the Crown lands was their capital, and not a revenue upon which they could depend."

THE Toronto Globe says that the Kingston and Pembroke road will yet have a large lumber traffic, probably sooner than it would otherwise have enjoyed on account of the persistence of Mr. Peter McLaren in obstructing the log navigation of the Mississippi. The limits of the Messrs. Caldwell lie far up the river from the railway crossing, and it is, I believe, their intention to erect a mill near the latter point, thus saving many miles of stream driving, and getting rid of a portion of the disputed river. Mr. McLaren has a mill already in operation near the same place.

It is stated from Alpena, Mich., that there will not probably be quite as many logs cut this year as last. There will be a large amount of last winter's cut left over. The mills have not cut as much as was intended in the spring. The breaking of Richardson's dam, in the beginning of the season, was a serious detriment to business, a full month's work in most of the mills being lost by it; besides, it disarranged the operations of the boom company to such an extent as to be an embarrassment the entire season, and mills have often been obliged to shut down temporarily because of it.

A SPECIAL telegram from Ottawa says that a well known forwarder, in speaking of matters pertaining to the forwarding business, says that while the same rates had been obtained during the season now practically closed, as in 1880, wages had advanced fully 20 per cent., and there was a decrease to fully that extent in the carrying capacity of the barges, owing to the low state of the water. He considered the outlook for 1882 very favorable, as more lumber will be cut, and as the construction of the dam at the Chute au Blondeau, the only really dangerous piece of navigation between here and Montreal, would greatly benefit the forwarders, doing away with the delays which have hitherto proved so serious. He thought the dam had proved a success beyond all question, and that now even the largest steamship could ascend the Chute without trouble or danger.

AN UNKNOWN FOREST.

MR. NIVEN'S EXPLORATIONS OF THE TAMAGAMANGUE COUNTRY—LOTS OF GOOD PINE.

Mr. A. Niven, P. L. S., of Haliburton, has just returned from making a survey of the country between Lakes Nipissing and Tamagamangue. The survey was made under the direction of the Ontario Government, and is merely preliminary to the laying out of a large block of townships, the base lines for which were laid down in this survey. A Globe reporter called upon Mr. Niven and gleaned much interesting information respecting the district, which hitherto has been almost unknown. Mr. Niven, with a party of thirteen men, set out from Lake Nipissing in the middle of June. The party penetrated to the north east corner of the Township of Field, where the survey was to commence.

Here four months of laborious journeying commenced, almost every step having to be cut through a dense forest.

The first line was cut from the northeast angle of Field due northward eighteen miles nearly to the southern shore of Lake Tamagamangue. Along this line the country is undulating, and rocky ridges with an occasional swamp appear. The swamps, however, are only of small extent, and the ridges are rarely sharp, or show exposures of bare rock. In fact they are more like plateaus, and are densely wooded with pine, birch, poplar, etc. The pine is abundant and of excellent quality, being quite equal to any Mr. Niven has seen elsewhere in Canada. The soil is a sandy loam except where it is rocky. Returning twelve miles southward, Mr. Niven struck twelve miles eastward, finding a comparatively level country, similar in vegetation to the country on the north line. Maple is also present. On this line the soil is in parts excellent, and fully a third of it good arable land. The pine is good. Returning to the north and south line, the party then cut their way due west twenty five miles. For the first twelve miles the surface is much like that already described, and good timber abounds.

AT THE STURGEON RIVER,

which flows into Lake Nipissing, the soil is clayey and the timber good—very fine pine trees appearing. In this neighbourhood Mr. Niven saw the only great damage done by the fires of the past summer. This was a *brule* two miles wide and ten long. The trees were all, or nearly all killed, but were not burnt down. Burning down rarely occurs in this first fire which sweeps over a country. This fire took place in May, and originated in a fire kindled by a camping party at a portage. The roughness of the country gradually increases westward towards Sturgeon River, but good land and timber is found in large areas along the route.

Westward of the Sturgeon the party entered a *brule*, or

TRACT OF BURNT FOREST.

The conflagration which swept over it occurred six years ago, and was extensive. At one time, Mr. Niven says, the *brule* was to be seen six miles on every side of him. The spectacle was a strange one. The tall pine trees still stood rearing their blackened forms over a hundred feet into the air, and stretching out their withered limbs in ghastly malediction over the foliage, which but for them would form a vast lake of verdure. Where the pine trunk was not, there the underbrush was. This dense underbrush consisted of a young growth of poplar, birch and cherry, ten or twelve feet high. Here and there over the top of the swarthy trees rose the bare cliffs or barren hillsides of the Laurentian formation, but down in the flats the surveyors travelled for hours without seeing more than a yard or two ahead. Beneath the tangle of underbrush, through which the axe had to cut a way, stretched in every direction the decaying forms of forest giants. In this desolation the twenty-five mile westerly line was completed, and the party turned northward for twelve miles, sketching the east shore of what is marked on the map as a fifteen mile long lake, but which is in reality a chain of three lakes, one of which—the smallest—bears the euphonious name Ahpetagokickungung, and the others Wahnapachicteoganchanunguo and Olopangishgamacookicongue, or some names equally unintelligible. Till within the last four miles of this northerly line the route was through a *brule*. Then came a fine piece of country, well timbered with maple, birch, balsam and spruce. From this point Mr. Niven, about the middle of September, turned eastward, on the sixty mile line leading to the Ottawa. The first four miles were like those just traversed, and much of it well adapted to agriculture. Then came

THE STURGEON RIVER.

This stream is a fine one. Its lower course is impeded by several falls, but the part lying in Mr. Niven's survey is obstructed only by rapids. It flows through a comparatively fertile valley, with a current two hundred to three hundred feet wide and fifteen to twenty feet deep. The banks are only ten or twelve feet high and are of quicksand and clay, which mingled, form a broad valley on either side. The banks of the stream are finely timbered with hardwood and pine. Leaving the river the line runs eastward over high plateaus broken by the chain of lakes leading from Lake Tamagamangue to the Sturgeon River. As the South Bay of the Tamagamangue is approached the maple becomes one of the most common of all the trees and the scenery is beautiful. A fine country extends from the South Bay a few miles eastward, where the land becomes high and rolling. Then on to the Tamagamangue River the soil is poor. From this river eastward the timber, soil, and appearance of the country are much like those north of the township of Field, and include, of course, some very good land and excellent pine. Then for fifteen miles the country is comparatively flat and is covered with a thick growth of white birch, spruce, balsam, poplar, and small pine. Swamps and rocky ridges are rather frequent. Good land appears here and there. Then comes a stretch of moderately good land near Ottertail Creek, and extending to within six or seven miles of the Ottawa River. This last stretch includes much excellent pine, but the soil is sandy with large areas of granite rock and *brule*.

LAKE TAMAGAMANGUE.

At South Bay the party stopped for a time to explore Lake Tamagamangue. The lake is of a very irregular form, consisting of a central part 30 miles long by 15 to 20 broad, and three arms. The greatest length of the lake is probably sixty miles. The water is remarkably pure, and abounds in fish. The shores are not high, nor are they on the other hand marshy. The number of islands dotting this lake and forming a labyrinth of channels is surprising. The islands are all wooded, and the scenery is beautiful, and may be compared to that of the Thousand Islands. On one of the islands is the Hudson Bay Post, around which sixteen Indian families are settled. The Indians here, and at Temiscamingue, and on the reserves at Lake

Nipissing, are the only ones in this part of the country. Lake Tamagamangue has two outlets—one by a river of that name, flowing southward into the Sturgeon, and the other by a river which expanding into Rabbit Lake, flows north-easterly under the name of the Matabigwan River, a branch of the Ottawa. The Tamagamangue as it leaves the lake is 130 feet wide, and of a fair depth. The other outlet is equally large. It was explored to Montreal River by Mr. Galbraith, one of Mr. Niven's explorers.

SOIL, LUMBER AND MINERALS.

Mr. Niven cannot speak of the south eastern part of the district, as the lateness of the season prevented the completion of the survey in that part. Along the Sturgeon River the soil is clayey, elsewhere it is sandy loam or rocky. The rock is not so much exposed, nor are the rocky ridges so common as in the country south of Lake Nipissing. About one-third of the surface consists of arable land. There is a large amount of fair-sized pine in the district, and of excellent quality. It is easily reached, streams of considerable volume abounding. There are unmistakable indications of iron in the territory, and Mr. Niven has brought specimens with him.

Mr. Niven visited McLaren's saw mill depot, about two miles south of Lake Temiscamingue. He says that if he hadn't seen it he would not have credited the existence of so fine a farm in this part of the country. There are 260 acres cleared and 100 acres without a stump. The buildings are good and splendid crops of oats and roots are raised. Indian corn is grown. Wheat would be grown, but there is no mill to grind it. The soil is first-class.

As the season was late when the party reached the Ottawa they took canoes to Matawan and thence returned home by road. The region traversed was not known to the white man, and Mr. Niven found that chains of lakes marked in the maps had no existence, and that rivers were marked away from their proper positions. His explorations are, therefore, important as making known for the first time a district almost as little known as Central Australia.

The Variability of Bricks.

A correspondent suggests that the market price of bricks should be rated according to their size, weight, and crushing strength. He instances two lots of brick, sold at the same price per thousand. One lot averaged $2\frac{1}{2} \times 3\frac{3}{4} \times 7\frac{1}{2}$ inches in size, 5 lbs. $2\frac{1}{2}$ oz. in weight, and broke at 5,490 lb. per square inch. The second lot ran about $2\frac{1}{2} \times 4 \times 8\frac{1}{2}$ inches in size, weighed only 4 lb. $8\frac{1}{2}$ oz., and broke at 3,610 lb. per square inch. The real values of these two lots of brick were obviously very unequal. As our correspondent says it makes a vast difference to the builder of an arch or pier if he calculates on bricks standing 500 tons to the square foot and gets them half as strong; or if he figures on 4,500 bricks per cord of 306 cubic feet, and if it takes 5,500. He thinks that every brick maker should guarantee a certain size, weight and crushing strength—which they will probably do when (and not before) builders refuse to purchase bricks which fall short of a stipulated standard of size and quality, or make their contracts with the brickmaker or dealer contingent, as to price, upon the character of the material delivered.

Southern Woods at the Atlanta Exhibition.

One of the notable exhibits at the Cotton Fair is the fine display of Southern woods, both rough and polished. It includes the sweet gum, a light colored wood, often worked up for coffins; the tupelo, a tree that cuts like cheese, but cannot be split, used by the negroes for corks; the famous (and infamous) palmetto; the Spanish bayonet, with stiff blades, sharp as needles, and serrated edges; the swamp cypress with its pointed excrescences, three feet high, springing from the root; and the curled pine, which takes a grain polish like the curled maple, but infinitely more vivid and beautiful.

The Georgia saw mills—there are eight hundred of them in the State—have sent in some colossal pine logs, one of them a sylvan monarch, straight as a needle, seventy feet long, twenty inches in diameter at the smaller butt, and some four feet thick at the base.—Scientific American.

TIMBER REGULATIONS.

The *Winnipeg Times* says that the recent Order-in-Council regarding the timber regulations has been received at the Crown Timber office. The following are the regulations:—

HOMESTEADERS' FREE PERMIT.

Any occupant of a homestead quarter section having no timber of his own, may, upon application, obtain a permit to cut such quantity of building timber, fencing timber or fuel as he may require for use on his homestead, not exceeding the following:—

1,800 lineal foot of house timber, no log to be over 12 in. at the small end.

400 roof rails.

80 cords of dry wood.

2,000 fence rails.

Should the house timber be sawn at a saw mill, payment for sawing must not be made by way of toll, as the full quantity of lumber cut from the logs must be used on the permit-holder's homestead. In order that mill owners may be able to give satisfactory evidence that saw logs or lumber found in their possession have been lawfully cut, they should require from settlers bringing timber to be sawn, proof that the same has not been cut on Dominion Lands, or that it has been cut under a permit, which the settler should produce in order that its number, date and name of permittee may be noted by the mill owner; the latter should also record the amount of such timber sawn by him, so that he may be in a position to duly protect himself should account or return thereof be demanded by agents of the Department.

The applicant will require to pay an office fee of 50 cents before he can obtain a permit, but no dues will be charged for the timber or wood cut under and in accordance with it.

Settlers whose farms may have thereon a supply of timber, or who are in possession of wood lots, or other timbered lands, will not be granted a free permit.

PERMITS SUBJECT TO DUES.

Permits under payment of dues may be granted to those applying for them to cut timber on available vacant Dominion Lands, on paying dues at the rates hereinafter specified:—

Cordwood, per cord.....	\$ 25
Fence posts, 8 ft. 6 in. long each.....	1
Telegraph poles, 22 ft. long each.....	5
Each lineal foot over 22 ft.....	1
Railroad ties, 8 ft. long.....	3
Nails, 12 ft. long, per M.....	2 00
Stakes, 8 ft. long, per M.....	2 00
Shingles, per M.....	60

Square timber and saw logs of oak, elm, ash, or maple, per M B M..... 3 60

Pine, spruce, tamarac, cedar, and all other woods with the exception of poplar, per M B M..... 2 50

Poplar, per M B M..... 2 00

All other products of the forest not enumerated, 10 per cent. ad valorem.

An office fee of 50 cents to be charged for each permit.

Issuers of permits will be instructed by the Minister as to the limit of quantity that will be granted; also what proportion of dues shall be deposited on issue of permit, as guarantee on the part of those obtaining the same.

Besides the dues above specified, grantees of permits may be called upon to pay such addition thereto as the Minister may judge necessary to meet their proportion of any expense that may be incurred by the Department in survey, or other demarcation, on the ground of the limits within which such permits are to be operative.

Permits shall set forth that those obtaining them must conform to the conditions, terms, and requirements specified in the same, and carefully restrict their cutting to the limits described therein, and that any breach thereof will subject the offender to all the pains and penalties in that behalf as set forth in the Dominion Lands Act.

WOODEN ARCHITECTURE.

Mr. Chas. Hayward, F. S. A., in an article, "Our Old Timber Work," which recently appeared in the *British Architect*, calls attention to the revival of visible timber work construction, after so many years of neglect. "The frequent design and construction of important buildings in timber work," he says, "and the tendency to a further extension of the same, is a remarkable feature of our times. It would seem as if it were a law in our profession, as well as elsewhere, that ideas of art should come as the waves come, and ebb and flow as the tide. It appears more difficult to speak of our

changes in taste and practice in this way than to talk of them as mere fashion, though fashion, no doubt, has in its most direct though capricious manner a great influence, not only on the forms of architecture in use at various times, but on the several kinds of materials also, as attempts at a 'new style' or a 'new order,' the 'Victorian age,' 'nineteenth century Gothic,' and so on, all showing a healthy, thoughtful vigour existing in the old stock, and a hopefulness ever now for something great to be evolved in the future. When centuries have rolled by, and men begin to reckon up the works of the nineteenth century and twentieth century architects, perhaps they may find that 'something which we are now unconsciously striving after, and haply helping to accomplish, though we cannot see it.

"Some years ago there was for a little while a fashion to talk of importing timber houses from Norway, designed and constructed all complete, and one or two were actually brought over in sections and set up. At the same time the writer was building, he says, a timber house in Norway, which was actually carried out in a modified form. Curiously it happened that a little later he was called upon to build a mansion of old ship timber in Cornwall, and a Swiss cottage, entirely of wood, elsewhere. The study of some foreign books, as well as of all such home and foreign timber constructions, became specially interesting, and he would now recommend it to those who may be enabled by the present wave of fashion to evolve something out of the style in favour for the time."

The writer concludes as follows:—"We all know the glorious examples of Cheshire, Shropshire, Worcestershire, &c., besides the smaller excellent examples to be found nearly everywhere in the country about us. But I would point to one of our very earliest constructions in wood—well known, and yet, I dare say, seldom remembered—as the very fountain-head of that little stream which became eventually a great flood of art, and covered the whole land. I refer to the little church of Greenstead, in Essex, built in the early part of the eleventh century, of which the walls are composed merely of portions of trunks of trees—thick outside slabs—split or roughly hewn off, measuring 12 to 18 inches across, and 10 to 12 inches thick, roughly joined with tongues, but smoothed on the inside. These uprights, never more than 5 ft. to 6 ft. high, were originally tenoned into a head and cill; but in restorations carefully carried out some years ago the cill had to be removed and the lower ends of the timbers cut off as far as they had rotted, and a new cill on brickwork substituted. Substantially, however, we see a wooden chapel of the eleventh century, and the timbers, sound and hearty, standing as they were then set up. One of them on the north side—where there was an original doorway—has a notch cut in it for the purpose of holding a holy water vessel. It seems pretty certain that this chapel was erected for the purpose of receiving as a temporary resting-place the body of St. Edmund the king, on its way (for the second time, date 1013) to Boedrice-worth, thenceforth to be called Bury St. Edmunds. So here is an open book on the earliest wooden construction in England, which any one may read."—*Timber Trade's Journal*.

A FOREST FESTIVAL.

A large number of the lovers of the forests assembled on Bear Hill, near Boston, October 22, to join in the Festival of the Forests, as the call poetically expressed it. It was really a meeting of a committee appointed by the officials of the town of Medford to consider what steps were advisable to preserve the Middlesex fells region in a natural state. The Honorable Eliazur Wright was a member of the committee, and we extract the following from a report read by him:—

The committee is fully convinced by the stumps it has seen that there is not a single one of the multitude of rocky hills within this tract which has not at some time in the past been covered by large and flourishing white pine trees, and, of course, they may be again, and in a comparatively short time, if the proper and not very expensive conditions are supplied. These are, a little soil where the more or less horizontal rock surface has become extensively

bare, seedlings planted, and exemption from fires. Fires are fatal to young pines and hemlocks, and that is the reason why the hills are now mostly covered with scrubby oak and other trees that sprout from the roots. These deciduous trees, even if exempted from fires, do not attain any considerable size, except in the valleys, which, in the fells, are comparatively narrow. Then, if fed with the muck, which is a nuisance in the reservoirs, ash, maple, oak, and black walnut would grow luxuriantly.

White pines ask almost nothing from the ground, except anchorage, and that they find for themselves in the cracks of the rocks. They take their food and rapidly build up their beautiful and perennial shades and venerable trunks, from the air, and no tree does more to adorn the winter landscape, to absorb and decompose the gases deleterious to lung and life, appropriating the carbon and restoring the oxygen. They are the most effective as well as the most delightful purifiers of the air, and the density of the summer shades does the most to prevent the evaporation of the water.

That all the land of this tract, not occupied by the reservoirs of water and the residences and gardens of the people charged with the care of it, should be covered with the densest forest possible, is too obvious to need proof. Otherwise the sun will drink more water from these fells than the people.

The progress, if not the perpetuity, of the human race on this good planet depends on the forests of the future. This is the teaching of history, as well as of chemistry and meteorology. Two hundred years ago men had a right to more fields and less wood on this continent, but the war has already been carried too far, and, if a healthy population is to increase, the tree population must increase, with equal pace, from what it now is.

The reasons why the propagation and care of forests should, to some extent, be a governmental function, and not be left wholly to private caprice, are

1. Individual life is too short to have trees planted during its period, come to maturity. The individual proprietor of land, especially if not very wealthy, is prone to cut his crop of trees before it is ripe, and as clean as he does his rye, thus creating a desert.

2. A forest, in the absence of fire, never dies any more than a good government. Therefore a good government will take care that no forest, in a fit place, shall ever be killed.

3. Getting the best results from a forest requires a science and skill which but few individual proprietors can be expected to have. They all will best acquire such science and skill by seeing good examples on a large scale.

4. Pure air and pure water are common interests. Private caprice, ignorance or greed should not be allowed to injure them.

Preserving the purity of the air, especially, is not only a municipal, but a national and world question.

THE FUTURE MOTOR POWER.

The steam engine, which has been the means of revolutionizing manufacturing and transportation, was spoken of with a good deal of disparagement by several of the members of the British Association for the advancement of Science at the late meeting at Bath. Nearly every person who spoke on the subject gave it a bad name. It was stated that it was expensive to build, costly to run, difficult to keep in repair, dangerous to life and property, cumbersome, productive of dirt and noise, and not adapted to many purposes where a motor is required. In the opinion of some, the steam engine has had its day, and played its part, and was now ready to be put in a museum of curiosities. They think it is behind the times, and that it should give place to something better. These scientific men of Great Britain object to the steam engine because it does not meet the wants of the present age; and for the additional reason that it is fast consuming the coal that will be wanted for heating purposes. They want a better force, more locomotion, quicker travel, less expense, and greater security. They want something that will propel canoes as well as ships; that will run sewing machines as well as trip-hammers; that will draw pleasure carriages as well as railway cars. They desire a motor that will

not consume fuel, produce smoke, or cause noise, that can be managed by a child and run, if desired, in a parlor. They want something that will do all the steam engine does and many things beside.

In the opinion of most of the scientists of Great Britain, electricity is to take the place of steam in driving machinery and moving cars, and is to be generated by the action of tides, winds and falling water. They predict that wind-power will be utilized to a greater extent than any person in a previous age ever believed that it would. Wind will generate electricity for moving machinery, for lighting streets and warming dwellings in Ireland, Belgium, Denmark and other countries where there are few streams that afford water-power. The movements of the tide will produce the same effects in most countries that have an extensive sea coast, while the fall of water in rivers and streams will generate electricity in all mountain regions. The great electrical exhibition at Paris is doing much to draw attention to what is called the motor-power of the future. A picture called "The Queen of the Nineteenth Century" hangs in many of the shop windows. It is a female figure surrounded with a halo, and emitting rays of light from the hands, which are raised as if to enable the being to fly. The light gives the arms the appearance of wings. The artist is an enthusiast, and is regarded by many as a prophet. We all hope that his fair predictions may be realized. The steam-engine is a good thing, but we are ready for something better. It has done so well that till recently scientific men and inventors have not troubled themselves to make something better. Now that attention is drawn to electricity, great results may be expected.

LUMBERING AND FARMING.

There was a time when lumbermen scouted the idea of mixing their pursuit with farming. When they bought timber land they valued it for the logs and timber it would produce. For years the light, sandy soil on which pine grew in Michigan and Wisconsin, was considered nearly worthless for agricultural purposes. Lumbermen would strip this land of its forest growth, and then turn it over to the dominion of wilderness denizens, the wild beasts, and to the annual sweep of the devouring tempests of fire. But latterly a more economical spirit has aroused the owners of pine lands to make better use of their denuded real estate. Some of them have become awake to the conviction that it were cheaper to grow food supplies on their own soil, in the immediate vicinity of their logging camps, than to first pay for them in distant markets, and afterwards transport them, at a heavy cost, to the far-away camps. In the matter of grain and vegetables a great saving is thus made. Besides, their lands are thus converted from a dead waste of fallen limbs, and discarded timber, intermixed with growing briars, brambles and tangled undergrowth, to fruitful fields, and acquire a fair, saleable value as farm property. That heavy lumber concern, the Ludington, Wells & Van Schaick Company has adopted this thrifty scheme, and this year, on its own two farms, has raised 3,000 bushels of potatoes. Its other products this season consist of 400 bushels of onions, 500 bushels of beets, 300 bushels of carrots, and 5,000 heads of cabbage, besides peas, beans and other farm products. These will enter into the food supply of the logging camps this winter, wherein 600 men will be employed. In this connection it may be interesting to mention the other supplies that supplement those produced on the company's farms, and which mostly have to be purchased outside the lumber district. Among these are 800 barrels of flour, 300 barrels of beef, thirty barrels of syrup, 35 barrels of peas, forty barrels of dried apples, and 300 bushels of beans. Its stock will consume 600 tons of hay, 20,000 bushels of oats, corn, bran, etc. Fifteen barrels of kerosene oil will be required to light its camps.—*Northwestern Lumberman*.

We understand that Mr. Thos. Deacon, Q. C., of Pembroke, has bought the old mill on the Tay, and that the machinery is being removed and the dam taken down. This will be the means of draining a large tract of land formerly drowned by the mill dam.—*Perth Examiner*.

Chips.

Messrs. Flewelling shipped from St. John, N. B., a large lot of matches to the West Indies per the *Rothsay*, which sailed on Saturday, November 12th.

MERRITT CHANDLER has sold to Thompson Smith, in the Cheboygan, Mich., district, the standing timber on 8,000 acres of land, the consideration being \$33,000.

The tow-boat *George Washington*, said to be the oldest on the Hudson River, has just been examined and licensed for another year. It was built in 1830 of live oak and cedar.

The receipts at Albany, up to October 25, were 62,000,000 feet in excess of 1886, and it is expected that at least 70,000,000 feet more will arrive. The demand is reported firm.

Every dam owned by the Black River Flooding Association, Wis., was wrecked by the recent floods, and an assessment of \$10,000 was lately levied on the stockholders to make the necessary repairs.

There will be a great deal of lumbering on the Restigouche and Metapedia rivers and their tributaries this winter. A great many more people are putting in teams than last year. Scows loaded with provisions and camp equipments are towed up stream daily.

The *Mail* states that a vessel laden with lumber left Toronto on Nov. 10th, bound for Porto Rico, where she will get a return cargo of sugar. Hitherto lumber for the West Indies has been, with the exception of a few cargoes, from Montreal, shipped from New York.

There is a jam of 12 miles of logs at Sand Creek, and an 8 mile jam at Nowaygo, with one mile more at the Flats. There are fully 100,000,000 feet of logs in the booms here. In order to cut all these floating giants of the forest this season it will be necessary for all the mills to run night and day.

Messrs. R. P. & W. F. STARR are loading the brig *Sarah Wallace*, now at the railway wharf, at St. John, N. B., with a large assorted cargo for Bermuda. The cargo includes onion ends and slats, tomato ends and slats, a lot of boards and about 40 cords of soft wood for firewood—all from Messrs. Flewelling, of Hampton.

The *Montreal Gazette* says hemlock bark is quoted in this market at from \$7 to \$7.50 per cord, latest sales being reported by the car load at within that range of prices. Canadian bark has advanced one dollar per cord in the Boston market to \$12.50. Freight has also advanced \$9 per car from our bark districts to Salem, Mass., being now \$52@53 per car. The farmers in Salem are manifesting considerable dissatisfaction over the advance.

An improved machine for grinding wood for paper pulp has been patented by Mr. Nicolaus Kraiser, of Grollingen, Switzerland. The invention consists in a grinding stone mounted on a suitable shaft and surrounded by a casing, with a series of boxes on the sides for containing the blocks of wood, which are pressed against the sides of the stone by a rack and pinion actuated by a weight, or by springs or hydraulic pressure, whereby the block of wood is converted into a wood pulp.

The North Hastings Review says that the rush to the shanties commenced on Monday. During the day a large number of waggon loads of men and outfits left this village, and the same evening five large loads of Rathbun's men arrived here on their way back. It is said that more men are going to the woods this season than for some years past. One reason is probably on account of the destructive fires which prevailed last fall, rendering it necessary to secure the timber on the burnt limits without delay.

The Duluth Lake Superior News says J. S. Taylor & Sons are commencing preparations for logging on a large scale this winter. They have had a force all summer at their Stewart River camps, and will add to this crew enough men to get out some 3,000,000 feet, they hope, this winter. They have been at heavy expense in opening roads, building camps, etc., but now that such work is done, they can log to better advantage than last winter. Their logs now on Stewart River, some 500,000 to 700,000 feet, they will leave until next spring on account of the lateness of the season.

NORTHERN MINNESOTA'S PINE TIMBER.

Lumbermen are beginning to turn their attention to the splendid pine timber resources of Northern Minnesota, and it is safe to predict that it will not be many years before the northern portion of the North Star State—now almost a trackless forest—will be dotted with saw mills which will pour their products into the Red River Valley and Manitoba over the two lines of railway that are now certain to be constructed through the region referred to—one by the Northern Pacific Railway Company, from Brainerd, on the Mississippi River, to Emerson, and one from Duluth, also to terminate at this point. The splendid pine timber lands in the vicinity of Red Lake, being an Indian Reservation, still remain intact, but attention is being turned to the Government lands along Rainy River, the boundary line between Minnesota and Keowatin. A number of Duluth lumbermen have formed two companies, known respectively as "The Rainy River Log Running and Improvement Company," and the "Rainy River Boom Company." The incorporators are, in each case, John Maguire, S. R. Westworth, D. E. Little, P. M. Graff, E. D. Graff, and J. R. Cook. The object of the first is to "improve for navigation and running of logs and timber the Little Fork, Big Fork and Rainy Rivers." The object of the second is to "construct, maintain, operate and keep in reasonable repair good and sufficient boom or booms at or near the mouth of Rainy River, for the purpose of collecting, receiving and securing any and all logs or timber that may be floated or driven down the Rainy River." The capital stock of the "Rainy River Log Running and Improvement Co." is fixed at \$30,000, and of the "Rainy River Boom Co." at \$25,000. There is the same board of directors in both companies, viz., John Maguire, D. E. Little and John R. Cook.—*Emerson International.*

The Fuel of the Future.

The *National Gazette* makes the following announcement in regard to the use of petroleum as fuel:—We shall soon be able to announce a wonderful stride in the mechanical appliances for using liquid fuel for generating steam in both marine and land boilers. The matter is in the hands of practical men, who will soon demonstrate they can make from twenty-eight to thirty gallons of crude petroleum, costing from eighty-five to ninety cents, do the work of a ton of coal, costing from \$4 to \$4.25, without dirt or smoke, and when, as in the case of a large steamer carrying from forty to forty-five men in the fire room, one man in each will be abundantly able to keep up a uniform pressure of steam at all times. Liquid fuel is the intervening step between coal and electricity, which will, in due season, furnish motion for the world.

West Indian Trade.

The schooner *Guelph* is loading lumber at the N.R.R. wharf in Toronto, for the West Indies, where she will obtain return freights of sugar and molasses for Halifax or St. Lawrence ports during the winter. The shippers of the lumber, Messrs. Musson & Morrow, of Toronto, hope that by next summer she may return to Canadian lake ports with West Indian products. This experimental cargo of say 220,000 feet to Porto Rico is a venture the result of which will be looked for with interest. It exhibits enterprise, at least, and much may depend upon the successful or unsuccessful issue of this effort to introduce the islands of the Gulf of Mexico to the islands of the Western lakes direct, through the medium of their products. *Montreal Times.*

Wooden Dishes.

The Wooden Dish factory is a new and extensive industry just started at Indianapolis, Ind. Not many years ago persons would have laughed at the idea of wooden dishes, but they have become a necessity. They are cut from the sycamore or the gum tree by most ingenious machinery, which will cut and trim 200,000 dishes a day; other machines shape and fasten the cups together. Fifteen of these are employed, each of which can turn out 10,000 daily. The wood is, of course steamed, so as to be readily worked and moulded.—*N. Y. Observer.*

D. S. BRIGGS,
9 TORONTO STREET, TORONTO.
WHOLESALE DEALER IN
Clear, Pickings, Common and Hardwood
Lumber, Lath, Shingles, &c.
BILL STUFF CUT TO ORDER. 12, 13

J. K. POST & CO.
LUMBER MERCHANTS

And Shipping Agents.

OSWEGO, N. Y. 12, 14

J. & F. N. TENNANT

Dealers in all kinds of

Lumber, Lath & Shingles,

Office, Union Loan Building,

Toronto Street, Toronto. 12, 20

S. S. MUTTON & Co.,

Wholesale Lumber Dealers

TORONTO.

We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.
C.P.S.—A SET OF TUB MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER. 13, 12

A. L. UNDERWOOD

WHOLESALE DEALER IN

White Pine, Basswood & Hardwood,

82 King Street East,

TORONTO, ONT. 13, 110

FOR SALE.

The Dexter & Whitwam Manufacturing Company, offer for Sale the Entire

Real Estate Plant and Machinery

OF THEIR EXTENSIVE

BENDING & TURNING FACTORY

Situated in the City of St. Thomas, in the County of Elgin, Ontario. For full particulars apply to H. BROWN, Manager, or E. MOORE, President. 12, 20

J. T. LAMBERT,

Lumber and Commission Agent.

FOR SALE.

150	Mills.	White Pine,	1 x 10	Stock.
175	"	do	1 x 12	"
11	"	do	2 x 10	"
20	"	do	2 x 12	"
140	"	do	1 inch	Siding
20	"	do	1 1/2	"
40	"	do	2 x 10	Joists.
10	"	Cedar,	3 x 0	"
10	"	Basswood,	1 1/2	Inch.

APPLY AT THE OFFICE,

WELLINGTON STREET, OTTAWA. 12, 20



We have added to our plant all the latest improved machinery for Electro and Stereotyping, and the manufacture of Printers Furniture, facilities for executing work which no other establishment in the Dominion possesses, and not excelled by any on the continent. A large assortment of various cuts constantly on hand. FLEMING & SON, 20 Colborne St., Toronto. 12, 14

PORTLAND FOUNDRY.

JOSEPH McAFEE,
(LATE ANON'S McAFEE.)

Warehouse, Main St., St. John, N. B.

AGRICULTURAL IMPLEMENTS.

MANUFACTURER OF

Cooking, Ship, Parlor & Office Stoves

MILL CASTINGS

Ship Windlasses, Capstans, and Ship Castings of all kinds, (MADE TO ORDER)

Power Capstans, Patent Ship Pumps
With Copper Chambers. 12, 20

Lead Scuppers & Water Closets & all goods in my line for Ships' use.

Work done to Order with Quick Despatch.

IRWIN & BOYD

Commission

Lumber Dealers,

FORWARDERS,

Shipping & General Agents

PORT HOPE.

KERR BROS.

PRACTICAL

Founders, Machinists,

And Millwrights.

Manufacturers of Marine and Horizontal and Portable

Engines, Boilers

Grain Elevators & Steam Hoists,

Saw and Flour Mill Machinery.

With Latest Improvements A SPECIALTY

The ABEL EDWARDS CENTENNIAL TURBINE WATER WHEEL,

RODEBAUGH'S SAW FRAME, MILL DOGS and SAW GUIDES.

WATER WORKS, THE LATEST AND MOST IMPROVED, MADE TO ORDER.

LIGHT and HEAVY BRASS and IRON CASTINGS.

Plans and Specifications on application.

The Walkerville Foundry

AND

MACHINE WORKS.

Walkerville, Ont., June 1891.

Market Reports.

MONTREAL.

From Our Own Correspondent.

Nov. 24th.—The shipping season is now over, and navigation from this port is closed, only a few market boats are still running, which are to go into winter quarters on Saturday. The total shipments of lumber from Montreal to the River Plate during the past season and for previous years were as follows:—

	Pine.	Spruce.	Total	Pick's.
1881	11,806,152	1,023,644	12,829,796	5,145
1880			10,420,080	
1879			12,476,150	
1878			10,855,240	
1877			8,787,928	
1876			3,437,000	
1875			10,123,000	
1874			16,262,203	
1873			30,073,910	
1872			23,234,908	
1871			16,005,935	

It will be noticed from the above table that the shipments have been larger this year than any previous year since 1874. The total shipments of deals from Montreal to English ports during the season of 1881 were 18,236,849 feet, against 18,701,835 feet for the season of 1880, showing a decrease of 464,986 feet. There is a good deal of lumber lying on the wharfs yet, which has lately arrived, and dealers are busy getting it transported into yards. The demand lately has been light, and there is really so little done in this market that prices do not fluctuate much, if any, we therefore repeat our former quotations. For building lumber, ex yard, we continue to quote:—

Pine, 1st quality, 2 M	332	00740	00
Pine, 2nd " " M	18	00624	00
Pine, shipping culls, 2 M	12	00615	00
Pine, cull deals, 2 M	3	00610	00
Pine, mill culls, 2 M	5	00606	50
Spruce, 2 M	8	00610	00
Hemlock, 2 M	8	00610	00
Ash, run of long culls out, 2 M	10	00618	00
Bass, " " M	14	00610	00
Oak, 2 M	35	00645	00
Birch, 2 M	17	00629	00
Hard Maple, 2 M	18	00625	00
Lath, 2 M	1	2567	1 35
Shingles, 1st, 2 M	3	0067	0 00
Shingles, 2nd, 2 M	2	0067	0 00

CORRWOOD.—The cold weather for the past few days has stimulated the demand, but it is not very brisk, as yet; high prices seem to make people use coal instead. There are considerable quantities still on the wharves, for which holders would probably shade prices rather than cart it into yards. The only change in prices is in tamarack, which is now quoted lower. Our figures are now on wharf, ex cartage:—

Long Maple	80	50
Short	0	00
Long Birch	0	00
Short	5	50
Long Beech	5	50
Short	5	00
Long Tamarack	4	50
Short	4	40

LONDON, ONT.

From Our Own Correspondent.

Nov. 10th.—Less than twenty years ago it would have been considered a foolish undertaking to commence the erection of a huge block of buildings at this season of the year. I understand, however, that ere we are many days older the process of tearing down the Holman Opera House will begin, and on its site are to be built a handsome block of wholesale stores, and the building is to go on at once. Since we have had the Grand Opera House to go to, the Holman place has gone the way of all old and time worn institutions. The purchase of the property has been made by Messrs. Birrell, of the wholesale house of John Birrell & Co., and two other gentlemen, and it is the intention of the Birrell firm to occupy the largest portion of the new premises as their store, and no better site could be chosen, in fact this Holman property may be said to be about as valuable a one as there is in London, being situated, as it is, right in the heart of the city, on the principal street, and close to the G. W. R. depot. Well, all this description is only a prelude to informing you that the woodwork and lumber contract will be probably in the neighbourhood of \$10,000, and it is expected that it will be given out to private contract, that is, no tenders will be publicly solicited.

In the past two weeks the lumber market has

been brisk for the time of year. Though the sales have been small, they have been numerous, and it is simply a demand for the requirements to make things snug and secure for winter.

I am informed that a lumberman in this city is desirous of selling out an established business. It might be worth the notice of some of your readers.

Prices are about the same as in my last letter.

Later.

Nov. 24.—Since my last letter of two weeks ago nothing of particular note has transpired in this market. Lumber merchants seem all to be well occupied, and are sending out from their yards considerable stock for the purposes stated in my former letter, viz., making things snug and secure against the winter blasts.

Building, as may naturally be expected, is not now rushing, but mill men say they are busy notwithstanding. The large block of wholesale houses to be built on the Holman Opera House site, it has been said, will not be proceeded with this winter, but I have been informed in an authentic quarter that it will, and that the present building (Opera House) will be razed in a week or two. The contract for the lumber is not yet given out, but will be now in a few days.

Messrs. Green's mill is again rebuilt, and part of the machinery is at work.

I was informed the other day that the market here had advanced from one dollar to one dollar and a half, the result of a like advance in Sarnia, where the merchants have certainly put up their prices that much, but on making a very searching enquiry, I find prices here remain about the same, with an upward tendency, however, and the probability is that my next price list will have to undergo very material revising. Some parties in town are selling shingles at \$2.00, but the bulk of the merchants, and in fact the merchants proper, are keeping their figures up at last quotations. Though Sarnia lumbermen have advanced, the Goderich men remain firm at former rates, and this is probably one reason why we have not advanced here. We do not take a great deal of lumber from Sarnia.

My report of the market at this date is,—very firm and steady, with indications of an advance.

Below are the prices at present:—

QUOTATIONS.		
Mill cull boards and scantling		\$10 00
Shipping cull boards, promiscuous widths		11 00
" " " 10 and 12 in. stocks		13 50
Common boards, promiscuous widths		13 00
Scantling and joist, up to 16 ft.		14 00
" " " 18 ft.		14 50
" " " 20 ft.		15 50
" " " 22 ft.		16 50
" " " 24 ft.		18 00
Common stocks		14 00
Common 2 in. plank		13 00
Cutting up plank and boards		18 00
Sound dressing stocks		17 00
Clear and picks		31 00
Three upper, Am. inspection		35 00
1/2 inch dressed and mated flooring		20 00
" " " "		20 00
" " " "		20 00
XXX sawn shingles, 2 M		3 00
Lath per 1000 feet		4 00

TORONTO.

From Our Own Correspondent.

Nov. 22nd.—Lumber shipments from this port to the American market may be said to have virtually closed for this season. Some few cargoes may yet go forward, but the determination of all insurance companies not to insure deck loads makes it unprofitable for vessel owners, as few shippers care to run the risk themselves, and to stow good lumber in the hold is not desirable; so that both shippers and vessel owners must work at a disadvantage in any more shipments they may see fit to make this season.

The decrease in shipments for the American market has resulted in a marked increase of lumber for the local market, and it may not be amiss to give you a record of my observations as to the stocks carried by the various yards which I have visited:—

Bryce Bros., corner of Front and Frederick streets, hold perhaps the largest stock of heavy bill lumber to be found in any of the yards here, and their stock is only light compared with that held by that firm at other times in the past; the next yard, a little further west on the esplanade, is that of Reid & Co., their stock is a compact one, but deficient in various kinds of

dimension stuff. Still a little further west we come to the yard owned by J. B. Smith, this gentleman being largely interested in the manufacture of all building material, does not at any time carry a large stock of dimension stuff, but is well up in all kinds of dressed lumber, and furnishes large bills for points as far east as Montreal, and is one of our oldest and most reliable dealers here. A little further east and on the corner of Queen and Sherbourn streets, we have the yard owned by De LaPlant & Co., who carry a compact little stock, and are also wood and coal dealers. One mile to the N. W. of the last mentioned we come to the yard owned by C. H. Edwards, whose stock is extremely light, and largely deficient in the various sizes of joisting. A compact trade is done by Mr. Edwards, he being also a dealer in coal and wood. A little farther north stands the yard of P. A. Scott, this yard has been circumscribed by the action of our City Council in forcing a street through it, and for which, it is claimed by the proprietor, he has not been adequately remunerated. However, considering the size of the yard, he carries a snug stock, but like all the other yards mentioned, short in dimension stuff. South-west of this yard we arrive at the premises kept by Messrs. Hillock & Kont, and, considering the size, they undoubtedly carry the best assorted and most compact stock to be found in the city, and although their stock may not be quite as varied as the dealer on whose sign read "Tar, Treacle, Gohly Books, Gimlets, etc., etc., sold here," still anything in the wood line from lignum vite, or boxwood, to clear pine lumber, can constantly be obtained here. To the south of this yard, and situated on the esplanade, we find the extensive shops and yards kept by John Oliver, and to give you anything like a full description of the stock held by this firm would take up more space than can at present be spared, suffice it to say that their stock is both a varied and costly one. They do not profess to carry a large stock of pine, but in hard woods and fancy woods, including veneers, they doubtless bear off the palm from all other yards of the kind in the Dominion, and the entire yard being covered over enables them to keep their stock in the best order possible. One mile to the northwest of this yard we come to the yard of Messrs. S. & S. J. Wilcock, formerly Richardson & Wilcock, the senior member having lately retired, the business is now conducted by the former partners. The stock carried by this firm in their yard is at all times light, and is at present quite small, but this firm manage to fill a large portion of their orders direct from the cars, and so save considerable cost for piling and teaming, and the business done by this firm in this way is quite large. Nearly a mile to the north-west of this yard and near the corner of Collego and Bathurst streets, stands the yard owned by Messrs. Davidson & Malcolm. The members of this firm are both young men and only started in business one year ago, and have already earned for themselves a good reputation for prudence and push. The stock carried by this firm is light in bill stuff, but well up in boards, shingles, and lath, and the business done by this firm is rapidly increasing. To the south-west of this yard, and near the corner of Queen and Bathurst streets, stands the yard owned by Wm. Latch. The stock on hand here is also light in bill lumber, and only a scant stock of good boards. The business done by this firm is more of a car load business than retail. Near the village of Parkdale stand two yards, divided only by a board fence, the first of which is owned by Messrs. McKinley & Son. This firm are exceedingly close and careful buyers, and carry at all times a snug stock, and having the city to the east of them, and the village of Parkdale to the west, and the railroads passing close to their yard, they have a good opportunity of filling up their yard with short hauling, and a brisk building trade immediately around them. The yard to the west of the last named is owned by Joseph Davidson, and is the largest yard in point of superficial area in the city, and is the only yard in which the writer found a good stock of bill lumber. The facilities enjoyed by Mr. Davidson for furnishing this class of lumber will account for the stock in his yard. In the better class of lumber he falls short of many others before named.

QUOTATIONS, CAR LOADS.

Mill cull boards and scantling		\$ 9 00
Shipping cull boards, promiscuous widths		11 00
" " " stocks		13 00
Scantling and joist, up to 16 ft.		14 00
" " " 18 ft.		14 50
" " " 20 ft.		15 50
" " " 22 ft.		16 50
" " " 24 ft.		18 00
Scantling and joist, up to 28 ft.		18 00
" " " 30 ft.		20 00
" " " 32 ft.		22 00
" " " 34 ft.		23 00
" " " 36 ft.		23 00
" " " 38 ft.		23 00
" " " 40 to 44 ft.		32 00
Cutting up planks to dry boards		18 00
Sound dressing stocks		14 00 @ 10 00
Picks Am. inspection		20 00
Three upper, Am. inspection		34 00
B. M.		
1 1/2 inch flooring, dressed		23 00
" " " rough		14 00
" " " dressed		24 00
" " " undressed		14 00
" " " dressed		20 00
" " " undressed		16 00
1/2 Beaded Sheeting, dressed		20 00
Clapboarding, dressed		12 50
XXX sawn shingles, 2 M		2 30
XX " " shingles		2 75
Sa " " shingles		1 75

OTTAWA.

From Our Own Correspondent.

Nov. 23rd.—All indications in this vicinity show conclusive signs that lumbering operations for the season of 1881 have come to a close. The last fleet of barges for American ports left this week. All the mills, with the exception of one or two, have put on their winter's dress, and the small army of mill hands have left for the scene of their winter's work in the shanties of the different firms' limits on the Upper Ottawa. The closing this year is somewhat earlier than former seasons, owing to the supply of logs becoming short. Retrospectively speaking, the result of

THE SEASON'S OPERATIONS

cannot be said to have come up to general expectations formed at the commencement of the year. Various causes are adduced for this, the principal one being the impossibility of having the logs cut last winter driven to their destination, owing to the early and continued falling of the water on the tributaries of the Ottawa. It is estimated that between Chats Rapids (where there are about 200,000 logs) and Frost's Channel, there are between 350,000 and 400,000 saw logs. These will have to remain where they are until next spring. There are numerous other instances of

LOGS BEING STUCK,

and the quantity that will thus be held over will be very large. Notwithstanding this the lumber concerns have made preparations to take out an average number the coming winter, and it is anticipated, all things being favorable, that the cut next season will surpass that of any other season for years past, as a greater amount of logs will be brought down. Contracts entered into at the beginning of the season have been pretty well fulfilled.

FEW SALES

are reported lately. Yards hereabouts are fairly stocked now, but by the end of a few months they will present a rather barren appearance, as, besides the local trade, on an average seventy and eighty carloads of lumber leave the Chaudiere weekly for Boston during the winter months. Quotations rule firm, but there is a prospect of an advance, the supply being small and the demand on the American market on the increase. The average quarterly export of lumber and shingles from this port to the States is valued at about \$550,000.

BUSH FIRES

in the Ottawa Valley during the past season have caused a great amount of damage, the loss on limits being estimated at \$5,000,000. In the Gatineau district thousands of acres of mountain covered with pine and hemlock are burned every season by fires either started by settler or parties prospecting for phosphates. In this connection it is gratifying to know that stringent measures are to be adopted by the Government of the Province of Quebec to prevent this great destruction of the forests. A Bill to this effect is being prepared and will be submitted at the next session of the Local House that will assure the needed protection in that Province, at least.

SAW LOG JOBBERS

are beginning their operations. Rates paid are \$1.10 per standard for pine, and 50 cents for spruce logs. Owing to the prevailing scarcity

of shantymen, wages are on the increase. \$15 to \$18 is paid to common shanty hands, \$20 to \$22 to log-makers, and \$35 to cullers,—fully twenty per cent. more than the wages paid last year.

ON THE LIVERIES, a tributary of the Ottawa emptying at Buckingham, below this city, lumbering operations this winter will be carried out on a more extensive scale than ever before. The opening of the large phosphate mines in that district gives rise to a new market.

MISCELLANEOUS. Ross Bros., Buckingham, will have no shanties next winter on Priest Creek, their limits in that locality having been destroyed by forest fires.

Mr. Martin, of this city, has erected a mill in the west part of Templeton.

In expectation of a large traffic in river navigation next summer, boat builders about here expect to put in a busy winter. Over sixty hands are now employed building lumber barges in the yards at Hull, opposite this city.

ST. JOHN, N. B.

From Our Own Correspondent.

Nov. 21st.—Although our harbour is open all winter, and shipments may be made any day in the year so far as the frost is concerned, still shipping operations from the present date till spring must necessarily be on a very limited scale, consequently we cannot expect much of general interest to report concerning our wood trade during that period.

DEALS.

As a consequence of the unusual scarcity of deals, prices have advanced somewhat since last report. Country sawn are worth \$10, and sales of city manufacture have been made at \$11 per M. superficial feet.

FREIGHTS.

Since our last the bottom appears to have dropped out of the freight market. Shippers are well supplied with tonnage, and the stock of deals for which tonnage has not been engaged is so very light that holders are disposed to wait their time, and take full advantage of their position. The last transaction reported was that of the Arklow, 728 tons, for east coast of Ireland or Bristol Channel, at 56s. 3d.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows:— For Europe 6,852,000 Sup. feet. United States 1,661,000 Africa 540,000 West Indies 397,000

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destinations:— Paramatta, 925, Bristol Channel. Latona, 945, Liverpool, London, or Bristol Channel. Bertie Bigelow, 1,142, Liverpool. Andrew Johnson, 2,005, Liverpool. Thos. N. Hart, 1,500, London. Sea Bird, 533, Liverpool. Avonmore, 1,325, London. John Campbell, 729, London. Maori, 700, Londonderry. Annie Stafford, 1,200, London. European (s), 1,773, Liverpool or London. Arklow, 728, E. C. Ireland or Bristol Channel. Abram Young, 750, waiting. Atlantic, 412, discharging.

ALBANY.

Nov. 22.—We have had several very busy days in the district since our last report, receiving, storing and shipping lumber. Buyers from New York, the east, and New Jersey, have been pretty plenty, not purchasing by large lots, but taking hold freely to piece out, and in some instances taking lots of 100,000 to 300,000 feet. Prices are steadily maintained. Our official report of receipts by canal are to the 8th inst. only; since then receipts have been large, blocking up the canal at several points. The demand for vessels is active; all offerings are taken on arrival.

Coarse lumber is coming forward rapidly and is disposed of about as fast as it arrives, and at full prices; from now to the close of navigation a large business will be done.

The receipts by canal at Albany from the opening of navigation to the 8th inst. were:—

Table with 4 columns: Date, Bds & Sells, Shingles, Timber, Staves, lbs. 1881: 409,764,000, 9,580, 1,000, 6,555,000. 1880: 340,627,500, 6,379, 10,985, 638,209.

Freights. From Tonawanda to Albany, \$2.50. From Oswego to Albany, \$2. From Port Hope to Oswego, \$1.40. From Ottawa to Albany, by boats, \$1.50 per M. feet.

Table of lumber prices at yards. Columns: Description (e.g., Pine, clear, 4x8), Price per unit. Includes various grades of pine, spruce, hemlock, and shingles.

CHICAGO.

Nov. 16.—During the past week the receipts of lumber have exceeded those of the corresponding week of last year by 6,000,000 feet, while the receipts of shingles have been less by about 2,000,000. The total receipts of lumber, as reported, were 50,043,000 feet, the bulk of which went at once to the yards, and on but one occasion has there been anything like a large fleet at the sales market. What was offered found a firm and advancing market, and contrary to the experience of the past two months, offerings were quickly taken at an advance of fully half a dollar over our former quotations. This advance was sharp, coming almost wholly in one day.

CARGO QUOTATIONS.

Table of cargo quotations for Chicago. Columns: Description (e.g., Joist and scantling), Price per unit.

OSWEGO, N.Y.

Nov. 25.—No change in quotations. Demand good. Receipts for shipment to tide water have about ceased. Dealers are getting in large stocks, and the assortment for winter bids fair to be the best ever held in this market. The following are the quotations:—

Table of lumber prices at Oswego, N.Y. Columns: Description (e.g., Three uppers), Price per unit.

TONAWANDA.

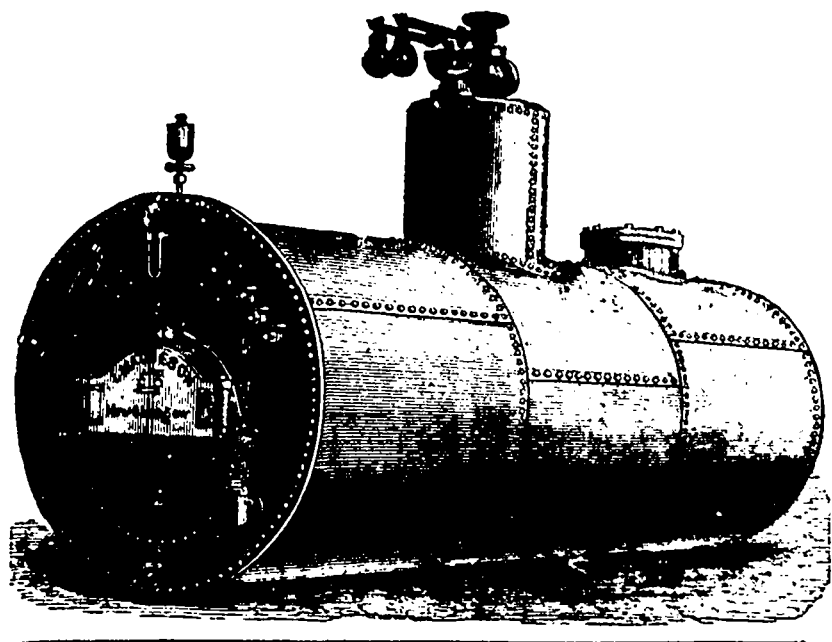
Table of cargo lots at Tonawanda. Columns: Description (e.g., Three uppers), Price per unit.

BUFFALO.

Table of lumber prices at Buffalo. Columns: Description (e.g., Uppers), Price per unit.

LIVERPOOL.

Nov. 1. Farnworth & Jardine say "the arrivals from British North America during the past month have been 46 vessels, 31,356 tons, against 12 vessels, 6,122 tons, during the corresponding month last year. There has been a fair amount of business transacted during the month. The arrivals have been numerous, and



Advertisement for Acadia Foundry, Engineers & Boiler Makers, New Glasgow, N.S. Includes logo and contact information.

the deliveries have been good. Stocks, with the exception of pitch pine, are very moderate, and as the import for the remainder of the year promises to be on a reduced scale, we may fairly anticipate that at the close of the season they will not exceed the requirements of the winter months." Of New Brunswick and Nova Scotia spruce and pine deals, and other woods, they say:—"The deliveries during the month have slightly exceeded the imports, leaving us with the very moderate stock of 16,921 standards, or little more than two-thirds of that held last year at the like time; still the market is not at all buoyant, and prices are barely maintained; however, as there is every prospect of the arrivals during the remainder of the season being on a moderate scale, we may soon expect to see some advance in prices. Pine deals are rarely asked for, and prices are low. The consumption of birch has been fair, and the stock is light, particularly of good quality; prices have been fully maintained." The following quotations are given:—

BIRCH.—By auction, St. John, 19 inches and up, at from 21d. to 23d. per foot; 17 to 18 inches, at 18d. per foot; Lower Port, 15 to 20 inches, at 16d. per foot, P. E. I., 15 inches at 13d. per foot.

QUEBEC PINE DEALS.—1st and 2nd quality no wholesale transactions to report; 3rd quality at £9 per standard.

SPRUCE DEALS.—By auction, St. John, at from £7 to £7 2s. per standard, and by private at £7 5s. per standard. Lower Ports at from £6 15s. to £7 per standard. Miramichi Pine Deals, 3rd quality, at from £6 to £6 15s. per standard; 4th quality at £6 per standard.

Scantling and boards, 6 inches and under, at from £6 10s. to £6 15s. per standard. Boards at £6 per standard.

Palings, 5 feet x 1 inch, at from 72s. 6d. to 75s. per mill; 4 1/2 feet x 1 inch, at 62s. 6d. per mill.

The imports of deals from New Brunswick from Jan. 28th to Oct. 31st, were 3,602,205 pieces this year as against 4,705,593 in 1880 and 3,457,145 in 1879.

Nov. 3.—Duncan, Ewing & Co. say "the consumption during the past month has shown a good increase over the previous one, and with moderate stocks on hand prices should improve. The better tone which has for some time past been making itself felt in the general trade of the country seems to have reached the wood trade at last, and prospects may be said to have a hopeful appearance." They quote:—

Spruce deals continue firm at late rates, sellers not being inclined to give way. Sales of St. John, N.B., by private treaty, for cargoes of good specification, £7 5s. ex quay. By auction,

a cargo of St. John, N.B., more than half 7 inch and under, realized £7 1s. per standard. Pipe and puncheon staves continue in request at advanced prices.

LONDON.

The following is an extract from Messrs. Churchill & Sim's circular, dated November 3rd:—"Prices, which were steady during the first half of October, were depressed towards the end of the month by rumours, for which it is difficult to find any real foundation, that very heavy shipments were being made for London, and that the market would again be overstocked by the end of the year. So far as it is possible to ascertain there is no likelihood of this being the case. Dock accommodation is bespoken for 111 cargoes, against 92 at the same time last year, and although this may hardly represent the full difference in tonnage—a greater proportion being in steamers of large carrying capacity—the excess is trifling when compared with a stock many millions of pieces short, and increased dock deliveries of 600 to 800 P.S.H. a week. The arrivals of wood-laden tonnage in the first ten months of the year have been 100,000 tons less than last year, and the dock deliveries 26,000 P.S.H. of deal, battens, and boards more.

SEVENTY-FIVE million feet of hemlock lumber have been cut at Williamsport, Pa., this year, as against 15,000,000 feet last year. Pennsylvania lumbermen are just beginning to see the value of this kind of timber.

Large advertisement for LEATHER BELTING, FIRE ENGINE HOSE, LACE LEATHER, &c. by Chipman, Renaud & Co., Montreal. Includes address 124 & 126 Queen St.

ABRAMS & KERR

MANUFACTURERS OF

Steam Engines, Mill Gearing, Rotary Mills, Shafting,
Planers, Hangers, Pulleys, Variety Moulders.

SPECIAL MACHINERY MADE TO ORDER

Latest Improved Spool and Bobbin Machinery.

Every Variety of Heavy and Light Casting.

124-1y

Foundry and Machine Shop on City Road,

ST. JOHN, NEW BRUNSWICK.

ROBIN & SADLER

594, 596, 598, St. Joseph St.

MONTREAL

Manufacturers

of

LEATHER BELTING

Fire-Engine

HOSE,

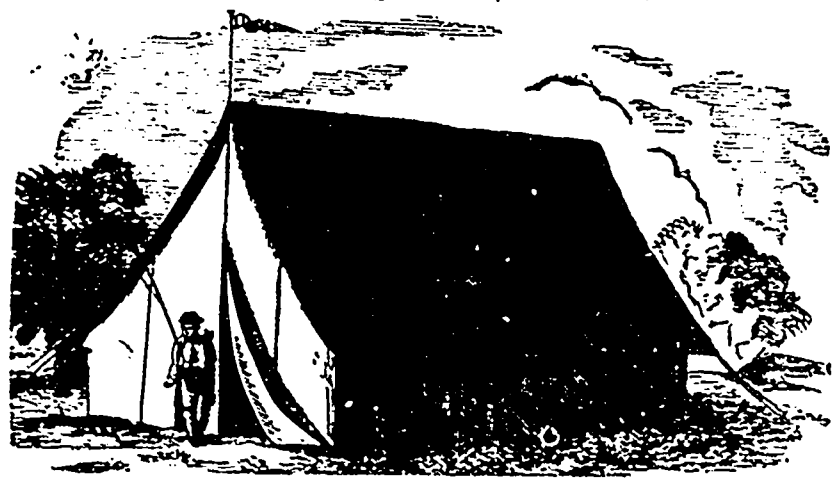
Lace Leather,

Mill Supplies, &c.

11-118

National Manufacturing Company

202 SPARKS STREET, OTTAWA.



Manufacturers of Tents for Lumbermen, Sportsmen, Camp Meetings, Photographers, Lawn and military Encampments, with or without extra roofs, all sizes and styles, white or fancy striped, mildew proof or plain. Prices from \$3, upwards. Flaps of all descriptions, (regulation sizes) made of the best of silk-finish bunting. **CAMP BEDS** (Bradley's Patent) the best bed ever invented; size when folded 2 x 6 in.; 3 feet long, weighing only 11 pounds, but strong enough to bear the weight of any man. Waterproof wagon and horse-covers, tarpaulins sheets, coats and leggings of every description made to order on the premises. Special rates to Lumbermen. Send for catalogue and price list to

NATIONAL MANUFACTURING CO.,
202 Sparks Street, Ottawa

The Best Axes in the World!

Single, Double and Triple Steel, 28 Patterns.



Warranted Good or Exchanged.



And Burrell's, Warnock's, and Dundas Axes, made specially for the Lumber Trade, repacked any weights without extra charge. Lindsay Pattern of Broad and Blocking Axes. LANCE TOOTH SAWS, warranted good. P. Jewell & Sons (Hartford, Conn.) LEATHER BELTING. 2d OUT FILES. LATH YARN. Mill and Shanty Hardware. No. 1 LARD OIL. Heavy HAMES, BUCKLES and HARNESS TRIMMINGS.

Ballard and other RIFLES, from \$10 each. Large assortment of CARTRIDGES.

GEORGE STETHEM, Peterborough, Ont.

Importer, Jobber and Retail Dealer in Hardware.

12-17

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 substantial Wrought Iron Work. The dimensions of these Stoves are as follows:—

SINGLE OVEN STOVE

Top surface contains six 10-inch holes, with ample room between, and one oven 16 x 21 x 26.

DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 21 x 26. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my Wrought Iron Cook Stoves since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

The Best Stove I have ever Used.

PETERBOROUGH, May 31, 1880.

ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.

Yours truly, THOS. GEO. HAZLITT.

The Stove for Lumbermen.

PETERBOROUGH, June 1st, 1880.

ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.

Yours truly, IRWIN & BOYD,

Gives the Greatest Satisfaction.

PETERBOROUGH, June 3rd, 1880.

A. HALL, Peterborough. Dear Sir,—I have had the Wrought Iron Cook Stove, purchased from you, in constant use ever since last fall, and it gives the greatest satisfaction in every respect. I can recommend it highly to any one who is in the lumber business.

Very truly yours, GEO. HILLIARD, S.P.

EVERY STOVE GUARANTEED

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

ADAM HALL, Peterborough.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit,
President.

JAMES T. BARNARD, Hamilton,
Secretary-Treasurer.

SAMUEL BRINGS, Hamilton,
Superintendent.

MANUFACTURERS OF THE CELEBRATED

DETROIT

EMERY and CORUNDUM WHEELS

These Wheels are

Wire Strengthened



And Specially Adapted

For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH,
GALT.

Messrs. R. H. SMITH & CO.,
ST. CATHARINES.

JAMES ROBERTSON, ESQ.,
MONTREAL.

Messrs. JAMES ROBERTSON & CO.,
TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ.,
PETERBOROUGH,

Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON,
DESERONTO,

Lumber Merchants.

Northey's Steam Pump Works

BOILER FEED PUMPS, MINING PUMPS,
AIR AND CIRCULATING PUMPS, PUMPS SPECIALLY ADAPTED for
STEAM FIRE PUMPS, and OIL PIPE LINES,
WRECKING PUMPS. And CITY WATER WORKS.

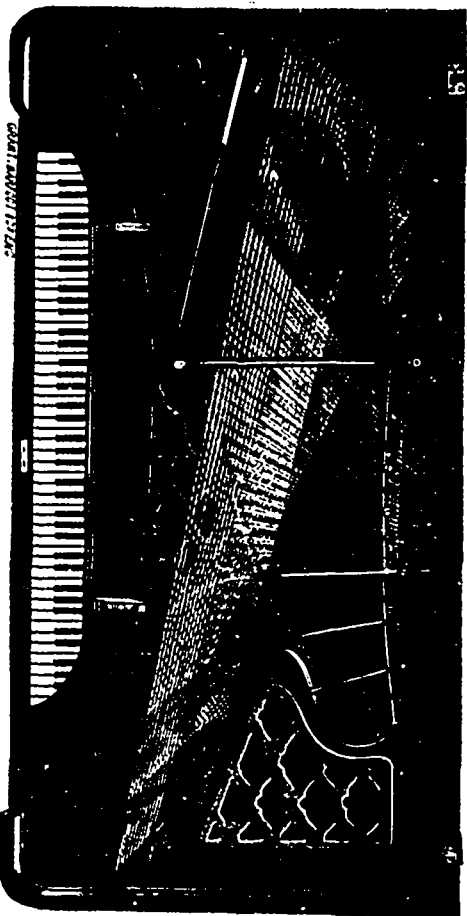
No. 47 King William Street.

HAMILTON, ONTARIO.

SEND FOR CIRCULAR.

L17-19

The Rainer Piano Always Triumphant!
 CARRIES OFF THE HONORS OF 1880 AS FOLLOWS:
 At Toronto Industrial Exhibition, 1st Prize, Diploma & Medal for Best Square Piano
 At Hamilton Provincial Exhibition 1st Prize and Diploma
 At Brantford Southern Fair 1st Prize and Diploma
 At Guelph Central Exhibition 1st Prize and Diploma
 SEND FOR CATALOGUE.
RAINER, SWEETNAM & HAZELTON,
 MANUFACTURERS,
 GUELPH, ONTARIO.



MILL SUPPLIES.

Extra Stretched and Patent Smooth Surface

RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.
HOYT'S CELEBRATED LEATHER BELTING.
COTTON BELTING, for Flour Mills. &c., Superior Quality.

DISSTON'S CELEBRATED MILL SAWS.

Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. Quotations furnished for any part of Canada.

ESTEY, ALLWOOD & CO., SAINT JOHN, NEW BRUNSWICK.

PARKER & EVANS

SOLE PROPRIETORS OF THE

FAMOUS INTERNATIONAL BOILER FLUID COMPOUND.

Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel. It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

In ordering, mention the CANADA LUMBERMAN.

L241y

504 St. Paul Street, MONTREAL.

ESTABLISHED 1820.

EAGLE FOUNDRY!

GEORGE BRUSH

14 to 34 King and Queen Streets, MONTREAL,

MAKER OF

Steam Engines, Steam Boilers, Hoisting Engines, Steam Pumps,

CIRCULAR SAW MILLS, BARK MILLS, SHINGLE MILLS,

Ore Crushers, Mill Gearing, Shafting, Hangers and Pullies, Hand and Power Hoists for Warehouses, &c., &c.,

AND AGENT FOR

L25-1y

"Water's" Perfect Steam Engine Governor, and "Herald & Sisco's" Centrifugal Pumps

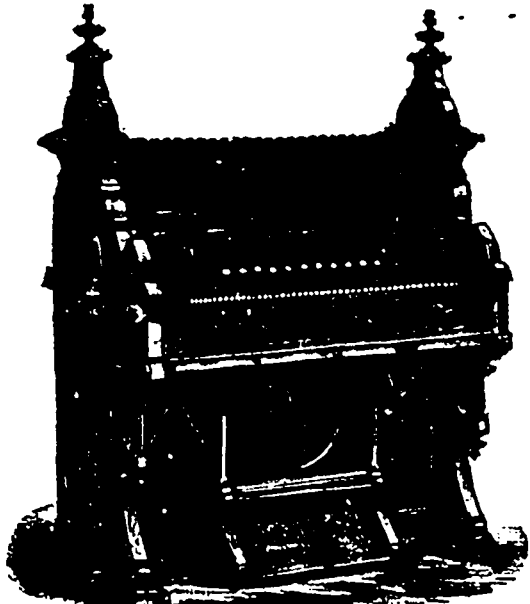
The Crowning Triumph of the Bell Organ

The Bell Organs have just received the HIGHEST AWARD and SPECIAL PRIZE (Gold Medal) at the International Exhibition, Sydney, Australia, this year for their Organs over all the English and American makers. This, along with the unlimited awards, prove that

THE BELL ORGANS LEAD THE WORLD.

DEVAICHE & FEM

Only Medal for Parlor Organ, Provincial Exhibition, 1878
 Only Medal for Parlor Organ, Industrial Exhibition, 1879
 And Gold Medal.....at Sydney, Australia, 1880



Medal and Diploma.....Provincial Exhibition 1871
 Medal and Diploma.....Centennial Exhibition, 1876
 International Medal and Diploma, Sydney, Australia, 1877

W. H. BELL & CO.

The Bell Organ Manufactory is the Largest and Oldest in the British Empire, and the fact that we have sold nearly 15,000 proves that they are the best in the market. We GUARANTEE ALL OUR ORGANS for five years. Correspondence invited. Illustrated Catalogue mailed free.

W. BELL & CO.

41 to 47 East Market Square, GUELPH, Ont

35 Horse Mill on Bay Chaleur makes Norwegian Captains Exclaim
"They are the Best Cut Deals we ever saw Shipped"
R. H. MONTGOMERY
 writes from New Richmond, Bay Chaleur, P. Que., 12th June, 1881:—"Have just come from Mill. She is working well and doing good work. Got up steam from cold water in 25 minutes. We cut yesterday, (all spruce logs) 19,556 from when in the mill this afternoon, took out my watch and timed the mill. She cut 1 spruce log, 12 feet long, in 66 seconds. I am much pleased with my mill. Ho writes again 2nd June:—"My 35 Horse Power Belted Mill still con- loaded, say they are the BEST CUT DEALS." My Norwegian captain of the vessel waiting to be The above Mill is out 35 H.P. Cut-off Engine; return tubular boiler; No. 2 new iron cut 3 1/2 logs; endless chain; Bull-wheel; Slab Saw; New Brunswick Edge; Single Trimmer; Sawdust Carrier; Deal Rolls, &c., put into operation. Waterous Engine Works Company, Brantford Canada.

D. McLACHLAN & SONS,

Manufacturers of all Descriptions of

STEAM BOILERS.

SHIPS' WATER-TANKS. Repairing Punctually Attended to.

17-120

NORTH SLIP, ST. JOHN, NEW BRUNSWICK.

OAK HALL

Nos. 115, 117, 119, 121, King St. East, Toronto.

We are the most Extensive CLOTHIERS in Canada.

We carry a STOCK of FIFTY THOUSAND DOLLARS to choose from.

We watch the Interest of our Customers. Our stock is FULL of the very best goods in Scotch, English and Canadian Tweeds.

We BUY and SELL for Cash, therefore it enables us to do business on very SMALL PROFITS.

NOTE THE PRICES.

We give a Good Tweed Suit for.....\$6 00

We give a Good Tweed Pants for..... 1 50

We give a Good Overalls for 0 35

LUMBERMEN!

When you visit Toronto, come direct to OAK HALL, and fit yourselves out with a Good Suit. Remember the address:-OAK HALL, the Great One Price Clothing House, Toronto, opposite St. James Cathedral. 17413

LUMBERMEN

Will always find a Large Stock of

Shanty Blankets

AND

HORSE BLANKETS

At LOWEST Mill Price, at

JNO. MACDONALD & CO'S

TORONTO.

Send Sample Order for our **LINED SHAPED HORSE RUG**, a Specialty, highly recommended for **Wear and Warmth.**

Flour Making by the New Process

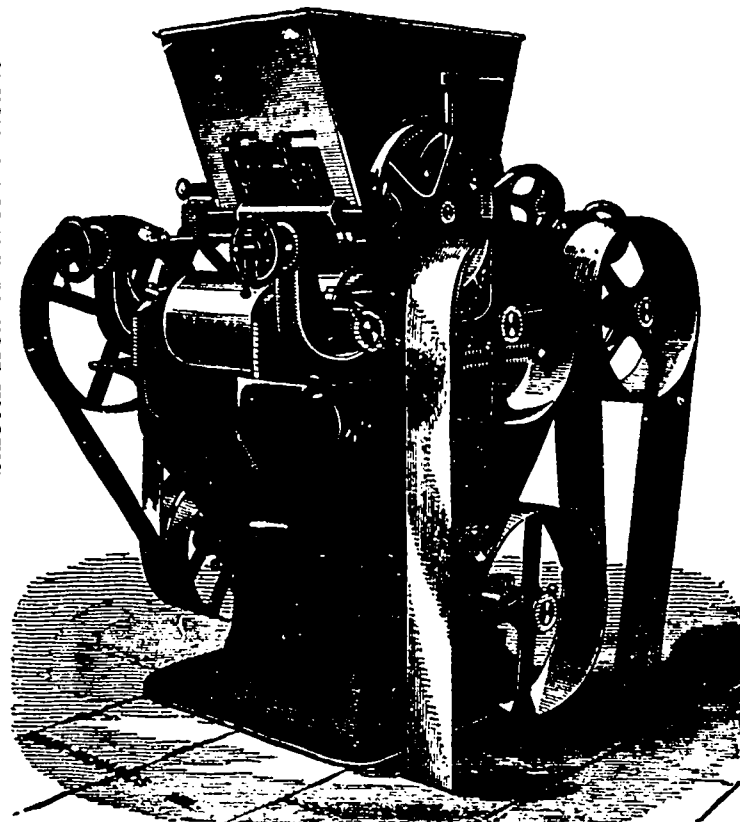
GRAY'S PATENT

NOISELESS ROLLER MILL

A Model of Perfection!

Every Mill a Success!

CORRUGATIONS of all Descriptions. Smooth Iron or Porcelain ROLLS.



These Roller Mills are used by all the Representative Millers of the United States.

The Machine is Perfect in all its adjustments, and **RUNS WITHOUT NOISE.**

It is doing Better Work than any other Machine in use.

Automatic Lubrication of Principal Bearings.

Driven entirely by BELTS.

Differential Speed always insured.

WEYMAN'S NEW IMPROVED PATENT

Porcelain Rolls

The **BEST ROLL FOR MIDLINGS** in the world. Over 6000 in use in this country and Europe. Send for particulars.

MILLER BROS. & MITCHELL,

Nos. 110, 112, 114 and 116 KING STREET

MONTREAL.

SOLE LICENSEES FOR DOMINION.

Manufacturers of Improved Hoisting Machinery, MINING and CONTRACTORS' PLANT. Importers of **BEST STEEL WIRE ROPE.** Mention this Paper. 121-1y

EMERY WHEELS FOR SAW GUMMING!



Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing \$3 to \$4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so flukie, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of \$500 to \$750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x $\frac{1}{2}$	} 3 in. hole.	10x $\frac{1}{2}$	} 3 in. hole.	12x $\frac{1}{2}$	} Holes, 3, 3 and 1 inch.
8x $\frac{3}{4}$		10x $\frac{3}{4}$		12x $\frac{3}{4}$	
8x $\frac{7}{8}$		10x $\frac{7}{8}$		12x $\frac{7}{8}$	
		12x $\frac{1}{2}$			
		12x $\frac{3}{4}$			
		12x $\frac{7}{8}$			

Probably more wheels 12x $\frac{1}{2}$, 12x $\frac{3}{4}$ and 12x $\frac{7}{8}$ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x $\frac{1}{2}$. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth case hardened, in which condition the saw will cut about 33 per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw lightly a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities to match any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you a Tanite Wheel of similar quality. Our regular classification of Saw Gumming Wheels is as follows:

CLASS 2. MEDIUM-HARD. This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2." It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

CLASS 3. MEDIUM-SOFT.—The same as to coarseness and fineness as "Class 2," but a softer, and therefore freer cutting wheel.

CLASS "POCONO." EXTRA SOFT.—This Wheel we prefer to all others. It is both finer in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application.

L13

The Tanite Co. Stroudsburg, Monroe Co. Pennsylvania

CANADIAN TRADE SPECIALLY SOLICITED.

M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

**CIRCULAR SAW
STEAM FEED!**

I would also call special attention to my

Heavy Circular Saw Mills

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, Esq., Peterborough.

DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 15 boards 13 ft. long in one minute. It can do much smoother and better work than the pusher feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in.

Yours respectfully,

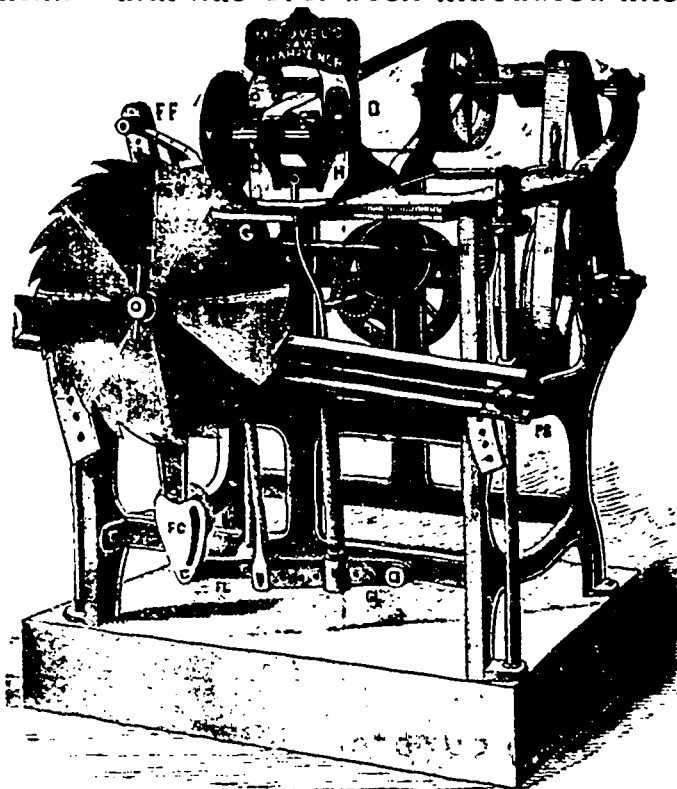
WILLIAM TAIT,
Lumberman, Gravenhurst.

Toronto, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly.
Yours, &c.,

THOMPSON, SMITH & SON.



MILL MACHINERY!

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgers, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws, Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

Horizontal Engines and Boilers



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woollen and Cotton Factories, or large Factories of any kind, I supply the Corliiss Engine. I feel justified in saying that our Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2 1/2 pounds of coal per horse-power per hour.

L10

WILLIAM HAMILTON,

PETERBOROUGH, ONT.