

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:

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. 2.

PETERBOROUGH, ONT., JANUARY 1, 1882.

NO. 1.

THE QUEBEC TRADE.

The Quebec Times, December 6th, says:— Whatever dulness may have been felt in Quebec in other branches, our lumber merchants and manufacturers have no reason to complain of the results of the season's business in their line. Though the shipments on the whole this year are less by about 100,000 tons than last year, owing to low rates of freight, the net profits of the season to the shippers will compare favorably with those of an average good year, while the lumbermen have reaped an exceptionally good harvest. Throughout the season prices have ruled high. In no article has a reduction taken place, and in the staple of white pine, both square and waney, values steadily advanced. As high as thirty-seven cents has been paid for first-class square timber, sixty to sixty-five feet average, and forty cents for first-class waney, twenty to twenty-one inches average. The last sale made in this market was a lot of Peter McLaren's square white pine, containing about 300,000 feet, at thirty-two cents for good quality, fifty-seven and one-half feet average, and twenty cents for common quality. This lot was sold to the same firm that bought the 500,000 feet of Grant's lately. The profits of the season, as we have said, though large, have been greater on the side of the lumberman than on that of the shipper, as a great deal of the timber was not previously contracted for and changed hands here after the rise had made itself felt. Our Quebec shippers, as a rule, are not speculative holders, nor in the slightest degree infected with the American mania for cornering. Brought up in the old school, they stick fast to the old traditions. Always content with a fair profit, they are exceedingly cautious about making large losses. That very absence of the speculative element, therefore, while it may prevent them from taking all the advantage possible to be derived from a "boom" in prices, is a very efficient safeguard against loss by undue depression. Thus it was that during the terrible five years of agony, when many of our most solvent institutions went to the wall, not one leading Quebec shipper, though the capital handled by them is larger, perhaps, than that handled in any other line, showed signs of tottering. And to-day the credit of those houses stands higher than it ever did. The indications for next year are favorable to a continuance of the present favorable rates. Stocks of deals and timber on the other side are light, owing to the small shipments this fall, and these small shipments were due to low rates. Had the shipments equalled those of last season, this market would have been completely swept of goods. Owing to light stocks on the other side, the demand there is active and holders are not anxious to sell. Square pine timber will, in all probability, hold its own next year, as the supply will not be above the average, even including timber stuck, and the immediate demand on

the other side at the opening of navigation in the spring, even should that demand be only a moderate one, will sweep away all our wintered stocks. The oak wintering will be about an average of the last five years, but under the average of the last ten years' stocks, and is all held in a few strong hands. In this line, therefore, we look for steady prices, more especially as the production this winter will be moderate and the season has not opened favorably for lumbering operations. Of pine deals, the stock wintering is about an average one, while the cost of getting out logs this winter will be considerably higher than usual. Thus prices will, no doubt, rule higher next year. In spruce the prospects are also better, owing to improved demand. The last sale made was that of Breakoy's deals, average mill cutting, 150,000 standard wintered, at \$38 for 1sts; \$27, 2nds; \$23, 3rds, and \$19, 4ths—very favorable rates. All those indications show that next year's business will be a prosperous one. Our Canadian merchants and manufacturers have the control of the markets in their own hands. All that is required on the part of both is to refrain from showing any undue anxiety to push sales. If they do this they will command their own terms.

TEN YEARS AGO.

It is a favorite statement with many at the present time that ten years ago the decadence of the pine supply, in ten, or at most fifteen years, was freely prophesied by those who were considered authorities on the subject, and the critics of to-day point with gleeful pride to the fact that, with facilities for manufacture doubled if not trebled, and a consumption not then imagined to be possible, the yearly production of lumber is still not decreasing, and the supply seems inexhaustible. That there is force in their argument that the prophets of a decade since were short-sighted, none will deny, but their hilarity over an ability to point to what has been lost much of its force when they neglect to take into account the changed conditions of the lumber trade, and refuse in the light of past experience, to give due recognition to what is known of the present, and just as positively of the future.

Ten years ago the lumber supply of the Northwestern forests was measured from a vastly changed standpoint from that at which in the present it must be measured.

Then the forests of the country were estimated upon the basis of the amount of timber which would yield not less than twenty per cent. in grades above common. At that time government selections were neglected at government prices of \$1.25 to \$2.50 per acre, which would not cut at least 5,000 feet to the acre, of trees which would average three logs to the thousand feet of lumber, and no timber was worth cutting which measured less than sixteen to eighteen

inches in diameter at the butt. It was on the basis of such large and excellent timber that the estimate of a ten to fifteen years supply was based. Ten years ago the present logging district of Michigan was almost, if not wholly, unknown, and did not, in but the slightest degree, enter into the mind or calculation of him who prophesied. At that time as little was known of northern Wisconsin as of northern Michigan. Ten years ago not a railroad penetrated into what is now the great timber-producing section of each of the states mentioned. Such a thing as a logging railroad had never entered into the calculation of a lumberman, and streams which are now running out yearly the millions of feet of log supply which feed the rapacious mills of the Northwest, were looked upon as unavailable creeks, the waters of which were by far too scanty to warrant their use in log running. Dams were an unthought of adjunct to log running almost as much as at first was the suggestion to lumber by railroad. Ten years ago only the best trees were taken by the lumberman, and the majority of the pine on a lot was left to its own destruction by fire and tornado.

Ten years ago such pine as entered into the calculations of the statistician was considered dear at \$1.50 to \$2 stumpage, and he was looked upon as a crank of the first "water" who considered such lands a good investment for a future advance on those figures. Now let us see how far wrong, from the only standpoint then available, were the prophets of a decade ago. How much good pine is now standing in the territory which was the subject of their calculation? In all candour the reply must be, Not enough to supply the mill capacity, which existed at that time, with a single year of stock. From the existing facilities for observation, the old prophets must be accredited with a remarkably correct appreciation of the timber supply. It is true that they failed to appreciate the fact that the country was growing at a rate which not even the shrewdest student of political economy could have imagined, and that, in consequence, an unknown and unexplored country would be developed, thickly covered with pine forests. In this they lacked judgment to as great an extent as do their present critics regarding the developments which an age of scientific discussion and inventive genius will bring forth during the decade before us. "Hind sight" is far more reliable in affording data upon which to point out the mistakes of a past generation than is foresight with regard to the future. The mistake of those who made the calculations which are criticised, was in lack of knowledge of an unknown region whose resources were not imagined, and as well in limiting the supply of pine to that better quality which was at that time alone of commercial value. But that mistake can no longer be made, and those who argue from the short-sightedness of the past that the prophets of the present are as well in

error, base their assertions upon a false premise. The eye is no longer stretched into the vista of an unknown and unexplored region. We no longer underestimate the value of the smaller and coarser timber. The explorer has gone in and taken possession of the farthest foot of land on which a pine tree can by any possibility be found. The lumber statistician no longer limits his calculation to the largest and most thrifty timber, but sees a value and an appreciable quantity in the smallest trees which point skyward.

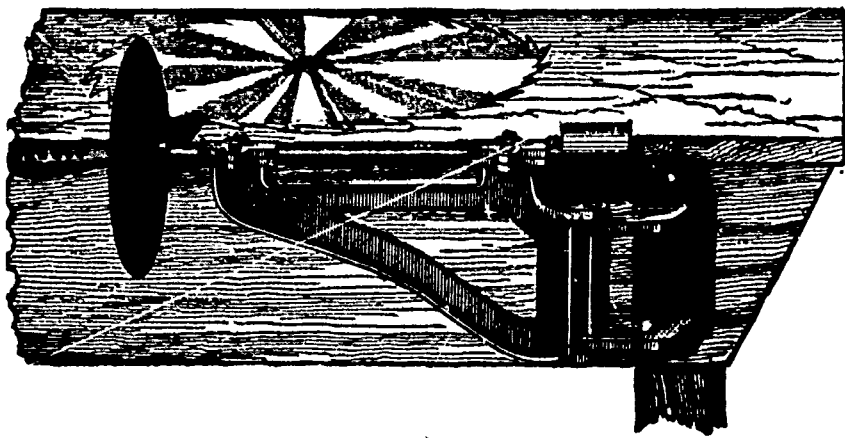
Without entering now into any argument as to what the actual quantity of the standing pine of the Northwest is, or is not, or how long it will last with present facilities and knowledge of dams on small creeks, or cheap railroads where water is not available, the Lumberman simply wishes to say a word in vindication of the judgment of those who prophesied ten years ago, and to submit that, from the only standpoint then available, their predictions have been fairly realized.—Northwestern Lumberman.

Australian Forests.

The Australian colonies are covering the importance of taking steps to reserve their forests from further destruction, not only on the ground that the timber should be protected, but in order to prevent losses in the water supply. Evils which attend the destruction of trees are already felt in many provinces in an increased dryness of climate, longer droughts, and more numerous bush fires. During the 38 years ending in 1868 the average annual destruction of the New Zealand forests was 23 per cent., and in the five succeeding years 20 per cent. It is proposed in South Australia that a block of 200,000 acres be reserved for systematic tree-planting, and that in the first year \$70,000 be expended on it, and in each of the 11 following years \$32,500, a total expense of \$650,000. After the first five years there would be, it is estimated, a revenue from periodical thinnings of \$175,000, and in 21 years the colony would possess 310 square miles of forest.

To Prevent Belts Slipping.

Experiments made in the United States with a view to discover the best way of transmitting power by means of leather belts, have led to the conclusion that the effectual way to prevent the slipping of the belts is to cover the pulleys with leather. From this it would appear that leather on leather offers a certain steadiness, and with the further advantage that the belt does not fly off, and wears out less rapidly than when it runs on iron or wood. It is stated that in a steam-mill with five ran of millstones, each set ground twenty-seven bushels a day after the pulleys were covered with leather, being from three to four bushels more each day than before.



HODGSON'S PATENT SAW-GRINDER.

PATENTED IN THE UNITED STATES MARCH 19TH, 1878, AND IN CANADA JUNE 8TH, 1878.

It is estimated that there are in the United States and Canada about 42,000 saw mills, running about 140,000 saws, and that to keep these saws sharp requires the cutting away of over 200 tons of tempered steel each year. How to accomplish this Herculean task the most rapidly, the most cheaply, with the least expenditure of muscular effort, and with the least damage to a saw, has long been a vital question among the mill-owners of this continent.

The file, the burr gummer, the punch gummer, the grindstone, and the emery wheel has each had its turn. The file has been found too expensive in itself, and too laborious in use, except for merely pointing up the teeth. The burr gummer has been found subject to the same objections, with the additional one, that it is very poorly adapted to any of the work to be done except throating out the teeth of large circular saws. The punch gummer has long been condemned as liable to strain and weaken any saw, and as entirely unfit to use on a circular. The grindstone has had to stand aside on account of the rapidity of its wear, and the difficulty of keeping it in proper shape, to say nothing of the discomfort in using it, leaving

THE EMERY WHEEL.

in undisputed possession of the point, for there is no fact in the whole range of the economy of mechanics better established than that a well made and well mounted emery wheel will cut away tempered saw plate more rapidly, more cheaply, more easily, and with less damage to a saw, than any other tool.

To do good work on any but the smallest saws, the wheel must move to the saw, and not the saw to the wheel, and it should have two motions, one allowing it to move in to the saw the depth of the tooth, and the other allowing it to move along the saw the length of the tooth.

There have been several saw grinders combining these two motions placed on the market, but they have all been large and complicated affairs, and so expensive as to put them entirely out of the reach of any but the owners of the larger establishments, so that the want of the great body of the mill-owners of this continent has been, up to the present time, a really good practical Saw Grinder at a moderate price.

This want is fully met by the machine represented in the engraving at the beginning of this article. It is bolted, as seen at the right hand, to a bench, similar to the small workbench, only part of it being shown in the cut. The saw, whether a long saw or circular, lies on the bench in such a position that the flat side of the wheel shall give the proper hook to the teeth. The whole of the machine, except the piece bolted to the bench, swings on a hinge or joint, seen under the pulley; this motion allowing the emery wheel to work into the saw the depth of the tooth, while the arbor is so long that it has about three inches of end play in its bearings, this motion allowing the emery wheel to work along the length of the tooth.

The arbor may be belted from either above or below, but that part of the belt running on to the pulley must run vertically, or "plumb," and as the pulley is fair over the hinge on which the machine swings, the swing of it has no tendency to throw the belt, even if it is swung square out from the table, and the most rapid movement that can be given to the arbor length

ways will not throw the belt, which steadily leads on to the crown of the pulley on the arbor, while it traverses the driving pulley, which should be about six inches wide, and perfectly flat on the face. The emery wheel is secured to the arbor by a tight and a loose collar and nut, in the usual manner. The arbor extends through this nut some three inches to the left, and on this is fitted a small pipe or sleeve, somewhat like the pipe on a carriage axle, and on one side of this pipe is cast the handle, seen in the engraving. By means of this handle the operator can place the wheel to the saw with the greatest accuracy and with perfect ease. Indeed, holding the handle so near the wheel, without the intervention of any lever or counterweight, and without having to move any considerable weight of material, he gets the feel of what the wheel is doing better than with any other Grinder, and no one offers him a better chance to see his work.

The design of this grinder combines, with its other excellencies, elegance and strength, and every part of it is made in the most careful manner. The arbor is of steel, and runs in very long chilled bearings. The pulley and collars are turned both inside and out, so that the arbor is in such perfect trim that it runs without a tremble.

A large number of mill owners in Canada and the United States are using this grinder with great satisfaction, and there is no doubt that its simplicity, its efficiency, and its cheapness will soon bring it into universal use. It is manufactured in Weisport, Pennsylvania, and in Amherst, Nova Scotia. For further particulars address the inventor and patentee, T. Hodgson, Amherst, Nova Scotia.

QUEBEC EXPORTS AND STOCKS.

The following is the annual circular of J. Bell Forsyth & Co., dated Quebec, 15th December, 1881:—

We have again the pleasure of publishing our Annual Statements, which at this particular period must prove of great interest to all engaged in the Timber Trade of Canada.

The arrivals from sea of sailing vessels have not equalled our expectations, while a steady increase is perceptible in the number of deal shipments by ocean steamers from this port as well as from Montreal. The comparison with last year being as follows, viz:—

	Sailing Vessels.	Steamships.
1881.....	643 .. 498,570 tons.	233 .. 385,818 tons.
1880.....	895 .. 708,346 "	261 .. 407,737 "

We also note that 459 sailing vessels, 380,186 tons (lumber laden) cleared at this port for sea against 634 vessels, 555,451 tons, in 1880.

We had the satisfaction last year of congratulating the manufacturers on the marked improvement in our trade and on the remunerative prices then realized, and in our annual circular we remarked:—"The trade of this port is in a sounder and more satisfactory state than it has been for years. The experience of the past season, together with the further advance in some woods, prove that our statements were in every way justified, and a correct view of the state of things then existing. We have again the pleasure of reiterating our congratulatory remarks, and are convinced that the trade has never been in a more healthy or in a better position than at the present time.

WHITE PINE.—The market did not at first open with that briskness and great demand that was looked for, and a few rafts in market and

to arrive were purchased at moderate figures; but as the spring shipments were being completed it became evident that the stock on hand was unusually small, and now timber was eagerly bought up, in some cases before the rafts had left the Ottawa district. A lull occurred in August, and for a time little business was transacted, but it was of short duration, and subsequently prices were paid for choice rafts such as never before had been given. We may here mention that in some instances 39 cents to 40 cents for waney board, and 35 cents to 37 cents for square in the raft was paid, the purchasers having of course to bear all loss from culls and defective wood as well as the expense of putting the timber in shipping order. It may be said that such high prices may bring about an over-production, but our shippers and consumers in Great Britain must bear in mind that the trade is in few hands, the manufacturers being in most cases men of very considerable means, who will not dispose of their timber unless they obtain good figures, and who find it more difficult each year to procure choice wood. The greatest care and attention was paid last winter in the selection of timber, in some instances miles of timber limits were traversed to hunt up good and choice trees; and after all a great falling off in the percentage of first-class was noticeable in rafts generally, though some few exceptionally fine ones were placed on the market. The supply this year has been under the average of past years, though in excess of 1880, and it is estimated that if the present winter is favorable for manufacture, an increased production may be looked for, should all reach market next season; this is certainly to be desired, seeing that the present stock is so light, and scarcely sufficient for spring requirements.

The local consumption has been fair all season, and since the great conflagration which occurred in June last, a further demand for building timber of every description has arisen, a portion of which the present stock must supply up to next June or July.

	Supply.	Export.	Stock.
1881 Square..	6,029,641	9,101,880	4,526,102 Square
Waney..	3,065,274		1,519,950 Wan'y
1880 Square..	4,214,285	11,582,560	6,197,318 Square
Waney..	2,235,500		797,346 Wan'y

RED PINE.—This year's production has been considerably over that of last year, the increase being entirely in small and inferior wood, a good deal of which is unfit for shipment and will only suit local requirements. Large and choice wood is becoming scarce on most limits, and has been in good request all season. Of this description the quantity in stock is very limited.

	Supply.	Export.	Stock.
1881.....	1,945,720	922,000	2,145,833
1880.....	1,056,167	1,433,200	1,372,572

OAK.—Notwithstanding that the quantity measured to date is over the manufacture of 1879 and 1880 put together, this wood has maintained its price for choice parcels, though inferior and common is difficult of sale. The scarcity of good wood and enhanced cost of production forces manufacturers to hold their timber, unless something like our highest quotations are realized. The estimated production of good oak is light, and to date the weather has been most unfavorable for the manufacturers.

	Supply.	Export.	Stock.
1881.....	2,004,477	1,583,360	1,916,622
1880.....	1,760,236	2,316,840	658,026

ELM.—The supply has been slightly over that of last year, the shipment fair and the stock wintering below the average. It is difficult to procure good rock elm, the trees being scattered and the prices asked for standing timber so high, that unless full rates can be obtained the production for this market must be greatly curtailed.

	Supply.	Export.	Stock.
1881.....	1,027,070	737,100	439,912
1880.....	937,253	1,041,800	237,610

ASH.—Of this wood a good deal of small inferior has come to market, and we warn manufacturers to get out nothing but good white ash. Large and good wood is in request at our quotations.

	Supply.	Export.	Stock.
1881.....	498,788	355,080	210,101
1880.....	215,480	203,520	136,317

BIRCH AND MAPLE. The production has been light, the export about an average one, and the stock reduced. These woods are more easily obtained than those already dealt with in these remarks, and the supply for some years to come must depend to a certain extent on the rates offered.

	Supply.	Export.	Stock.
1881.....	161,774	203,880	65,423
1880.....	594,314	583,840	170,008

STAVES.—Both pipe and puncheon have been in great request, and towards the close of the season unusually scarce. This branch of our trade has greatly decreased during the past ten years, and a large proportion of the business has fallen into the hands of Americans, which used to be transacted at this port. With the high prices now ruling we hope for a revival in this line of our commerce.

	Supply.	Export.	Stock.
1881 Pipe.....	418	480	238
Puncheon.....	671	602	280
1880 Pipe.....	190	362	206
Puncheon.....	488	921	271

PINE DEALS.—Compared with 1880 the supply has been about a million standard short, the exports also show a diminution of nearly two millions standard; this latter has arisen from the limited tonnage obtainable since September. The demand for deals up to July was not active, but since that date a better feeling has prevailed. The increasing consumption in the United States will absorb a large quantity of sawn lumber and thus diminish the future supply of deals.

	Supply.	Export.	Stock.
1881.....	4,252,285	3,876,187	1,708,597
1880.....	5,320,000	5,823,263	1,026,168

SPRUCE DEALS.—The short supply of 1881 was caused by the lowness of the waters prevailing until late in the season, which prevented logs from reaching the mills. The export is some 200,000 standard less than it was in 1880, and the stock wintering is about an average of the last five years. Deals have commanded fair prices throughout the season.

The American demand for lumber at high figures continues.

	Supply.	Export.	Stock.
1881.....	1,590,457	3,097,342	810,023
1880.....	3,500,000	3,200,130	515,110

FREIGHTS opened at about 24s. timber and 60s. deals to Liverpool, 25s. timber and 60s. deals to London, 22s. timber and 60s. deals to Clyde, closing at 24s. 6d. timber, 67s. 6d. deal to Liverpool, 71s. deals to London, and 24s. timber to Clyde.

Croosoting Cross-Ties.

Colonel A. Hanson, superintendent of the Texas Central railroad, has had croosoting works constructed at Houston, for treating cross-ties, with a capacity of 760 pieces a day. The reservoir tanks are three in number, and will contain 4,000 barrels of crude oil. The cost of this oil is eleven cents, in Galveston. The cost of each tie, when croosoted, is \$1.10. The tanks are constructed of brick and Portland cement. The timber is loaded upon low tramway cars. These are drawn by machinery and an endless chain into the reservoir cylinders, which are then sealed, and the process therein completed, after which the cars are withdrawn. In the yards of the company are immense quantities of bridge timber and ties awaiting treatment. One of the advantages of this process is the fact that the common loblolly pine, which is regarded of so little value, and which exists in such immense quantities in eastern Texas, and throughout many parishes in Louisiana, is the most suitable wood for croosoting, as it requires an open, porous timber and rapid treatment.

A LADY'S EXPERIENCE.—Mrs. T. A. Gist, No. 1204 Walnut street, Philadelphia, Pa., writes: "I had inflammatory rheumatism very badly. In one foot and ankle it seemed to have taken hold with the determination to stay some time; and the morning I obtained the St. Jacobs Oil I could not put my foot down to the floor, even for an instant. I used it that evening for the first time, and the next morning for the second time, and that afternoon put my foot down for several minutes. On Sunday following I could stand up and walk a few steps. On Tuesday could walk about my room, and went down stairs by holding on to the banisters. Now I can walk quite well, and there is very little pain left. Just think! one bottle and a half and I am almost free from pain. It is a wonderful medicine.

A CURE FOR CROUP.—Apply flannel saturated with Hagar's Yellow Oil and administer the oil internally on a little sugar as directed on the bottle. Yellow Oil cures rheumatism, burns, scalds, chilblains, lameness, and all flesh wounds. All dealers supply it, only 25 cents.

SURE CURE FOR A COUGH.—The most reliable remedy for a cough or a cold, asthma, shortness of breath, sore throat, weak lungs and all bronchial troubles, is Hagar's Pectoral Balm. Price 25 cents.

F. E. 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, 1880
 International Medal, Centennial Ex..... Philadelphia, 1876



None genuine unless with a STAR on the head of rivets. Send for Price Lists and Discounts.
 1121

81 Colborne Street, Toronto

A. LEARMONTH & Co.

ENGINEERS AND FOUNDERS,

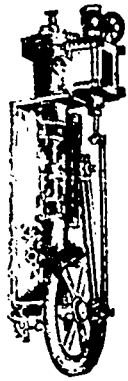
MANUFACTURER OF

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.

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

St. Paul St.,

QUEBEC.



Transferring Wood-graining.

Mr. Benjamin C. Smith, of Searsport, Me., has patented an improved apparatus for transferring wood-graining; also applicable to transferring any desired design formed by an engraving or otherwise upon a plate or block of wood or other material. By this invention the natural graining of wood may be transferred to any desired surface, without applying the color by which the transfer is made to the pattern, so that the depressions of said pattern can never become filled, and the pattern can be used an indefinite number of times. The pattern, which should be a distinctly grained piece of wood, is fixedly supported upon a block or carrier having at its opposite ends rollers, one of which is pressed outward by a spring for the purpose of keeping a band, arranged to pass around said rollers, taut. This endless band may be of rubber-coated cloth, and it is made to travel over the pattern, so that on color being applied by a brush to the outer surface of the band, and a rubber presser being made to bear the latter down on the pattern, the color will be removed from the raised surfaces of the band and a copy of the graining of the pattern in color will be left on the band. The device at one of its roller ends is then placed against the surface to which the graining is to be transferred, and the block or carrier moved over said surface.—Scientific American.

TYPHOID fever is reported as raging in the Pennsylvania lumber camps. In one camp 16 men out of 50 were attacked, but there have been but few deaths.

A LADY'S WISH.—"Oh, how I do wish my skin was as clear and soft as yours," said a lady to a friend. "You can easily make it so," answered the friend. "How?" inquired the first lady. "By using Hop Bitters, that makes pure, rich blood and blooming health. It did so for me, as you observe."—Cairo Bulletin.

HAGYARD'S PECTORAL BALSAM will cure coughs, colds, asthma, croup, whooping cough, sore throat, bronchitis and all lung complaints that lead to consumption. Price 25 cents.

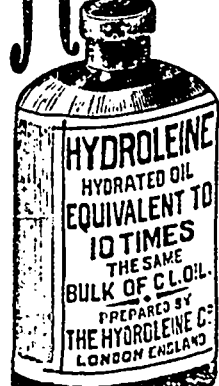
No IMPOSSIBILITY.—People often say, when suffering in the first stages of Consumption, or suffering from lung disease, if their physician fails to effect a cure, "my case is a hopeless one, and my enjoyment of health again is an impossibility." The celebrated French Count Mirabeau's nasty temper is well 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. Down's 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.

At Shell Lake, Minn., sprinklers to wet down the roads are being devised, so that the water shall freeze and make a slippery way for the logging sleds. Verily it is well said logs will go gotten in, snow or no snow.

THE Menominee Herald says that the Kirby Carpenter Co. operate 30 camps and employ 700 men, 200 horses, 120 mules and 50 yoke of oxen. The Company will bank 60,000,000 feet of logs this winter. The L. W. & V. S. Co. have over 500 men, 300 horses and mules, and 30 yoke of oxen. This Company will put in nearly 50,000,000 feet of logs and will operate 26 camps.

THE Northwestern Lumberman says it would be strange if eventually the country should largely depend upon Mr. Seward's sub-Arctic purchase for a timber supply. Rev. Mr. Jackson, known as the "Bishop of the Rocky Mountains," recently returned from Alaska, and has been lecturing in New York concerning that country. He estimates that the timber supply of that almost unknown region is equal to the entire growth of all the timber bearing lands in the eastern and northwestern states. Ample water-ways make it possible to get it to the seaboard, one river being navigable for 2,000 miles.

HYDROLEINE



(HYDRATED OIL)
 An artificially digested
 Cod Liver Oil.

For Consumption, Winter Cough, Affections of the Chest and all Wasting Diseases

Prescribed by the leading physicians of England, the United States and the Dominion of Canada.

A WONDERFUL FACT.

HYDROLEINE mixes perfectly with water, showing a complete artificial digestion of the oil, and just as the Hydrated Lime mixes with the water, so does it mix with the liquid contents of the stomach, and enters immediately into the system to nourish and build it up. The efficacy of HYDROLEINE is not confined to cases of Consumption, as from its valuable tonic effect on the nervous system in addition to its special stimulating action on the organs concerned in the production of Fat in the body, it causes marked increase in weight in persons of naturally thin habit, who do not present any evidence of disease.

Unlike ordinary preparations of Cod Liver Oil, it produces no unpleasant eructation or sense of nausea, and should be taken in such very much smaller doses, according to the directions, as will ensure its complete assimilation; this, at the same time, renders its use economical in the highest degree.

For sale by all Druggists.

MONTREAL SAW WORKS

MONTREAL,

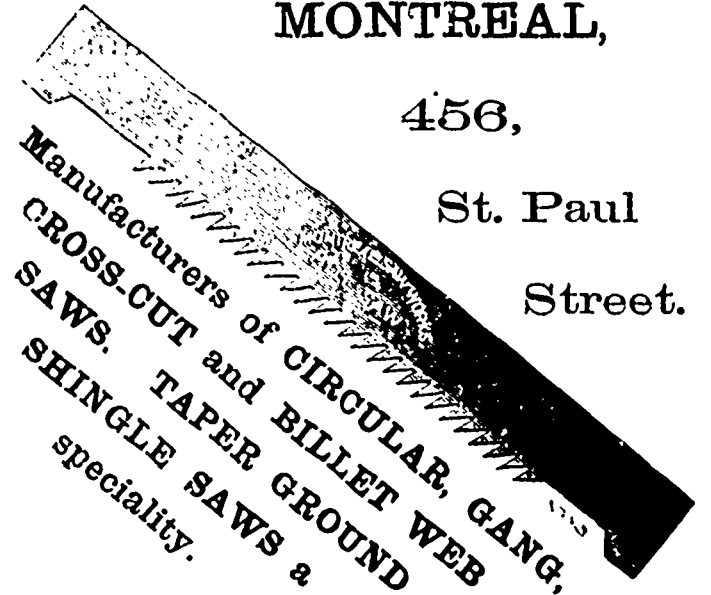
456,

St. Paul

Street.

General Mill Supplies always on hand.

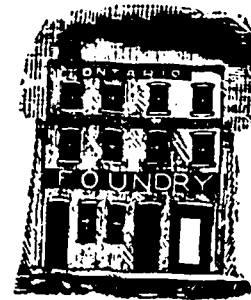
General Mill Supplies always on hand.



Manufacturers of CIRCULAR, GANG, CROSS-CUT and BILLET WEB SAWS. TAPER GROUND SHINGLE SAWS a speciality.

All correspondence address to Chas. M. WHITLAW, Sec. 1120

ONTARIO ELECTROTYPE AND STEREOTYPE FOUNDRY.

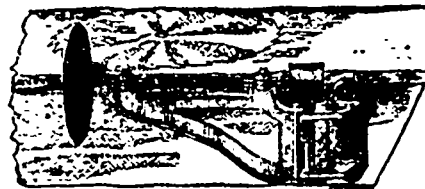


Having added the Latest Machinery to my Foundry, and secured the services of a MOST EFFICIENT STAFF OF AMERICAN SKILLED WORKMEN, I am prepared to execute all orders with Promptness. Satisfaction guaranteed.

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 1123

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



TO MILLMEN!

HODGSON'S Patent Saw Grinder

Is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round just were wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one fourth to one tenth the price of little better machines. It is patented in United States and Canada, and is made in Walsport, Pennsylvania, and in Amherst, Nova Scotia.

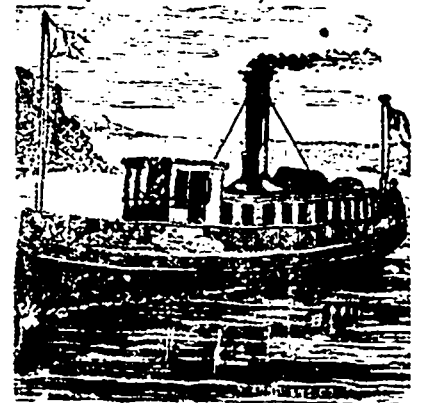
Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverser of carriage to suit large or small stock, is under control of operator when running. Will run for days without cutting a shingle. Warranted to cut, with one attendant, three thousand in an hour, under favorable conditions. \$100. Send for circulars to 1124

T. HODGSON, AMHERST, NOVA SCOTIA.

JOHN DOTY

Esplanade Street, Toronto.



MANUFACTURER OF MARINE ENGINES, MARINE BOILERS, Propeller Wheels and Steam Yachts 1114

HOP BITTERS.

(A Medicine, not a Drink.)

CONTAINS

HOPS, BUCHU, MANDRAKE, DANDELION.

AND THE PUREST AND BEST MEDICAL QUALITIES OF ALL OTHER BITTERS.

THEY CURE

All Diseases of the Stomach, Bowels, Blood, Liver, Kidneys, and Urinary Organs, Nerve-weakness, Sleeplessness and especially Female Complaints.

\$1,000 IN GOLD.

Will be paid for a case they will not cure or help, or for anything impure or injurious found in them.

Ask your druggist for Hop Bitters and try them before you sleep. Take no Other.

D. I. C. is an absolute and irresistible cure for Drunkenness, use of opium, tobacco and narcotics.

SEND FOR CIRCULAR.

All above sold by druggists. Hop Bitters Mfg. Co., Rochester, N. Y., & Toronto, Ont.

FORESTRY IN CANADA.

The following paper by A. T. Drummond appears in the proceedings of the Montreal Horticultural Society:—

Perhaps no trade question has around it at the present time so much interest as that of the conservation of our forests with a view to the continuance of the lumber industry. This industry has once more revived, and very large demands are now being made on our timber supplies. Public attention cannot, however, be too strongly directed to the fact that these timber supplies are not unlimited. The drain which has been going on for thirty years past on the resources of our forests has been so vast and so continued that the questions are now being forced on us—for how long a time can these resources be depended upon, and what efforts are being made to provide for that supply being continuous? It is perfectly clear that under the present system of farming out the public lands, the time is near at hand when the supply of merchantable standing timber will not equal the demands made upon it, and it is imperative that at once means should be adopted to preserve and recuperate these timber lands. Those who are familiar with the localities—each year extending farther northward and westward—where the lumbermen obtain their logs, cannot be blind to the fact that the area in which the pine may be expected to be found of merchantable size and in fair abundance, is not so extensive but that another few years of working the timber limits to the extent done in the past, must result in a marked diminution in our exports of white pine. It is not with timber as with other agricultural products. Reproduction cannot take place in a year or a decade. It must be recollected that not until the pine is from seventy-five to one hundred years old is it of good merchantable size for square timber, and that thus at least three-quarters of a century would be required to make these timber limits what they were. And what has been the experience in Maine and Michigan? The pine forests of both these states were thought to be inexhaustible, and gave employment to many thousands of men. Bangor, on the Penobscot, was one of the busiest spots in New England—so many mills lined the river banks, and so many vessels frequented the port for lumber. Now the scene is largely changed. The pine lumber manufactured there has fallen from 102,000,000 feet in 1850 to 63,000,000 feet in 1866, and to 14,000,000 feet in 1877, whilst the total production of pine, spruce and hemlock boards was not in 1877 one half in amount what it was in 1866. Again, in Michigan, the Saginaw Valley is being rapidly depleted, and to supplement the supply to its numerous mills, whose capacity is 600,000,000 feet, logs have to be brought from other large rivers long distances away. But most important of all is the fact that the lumber journals of the Western States admit that in the three States of Michigan, Wisconsin and Minnesota—the main sources of lumber supply in the West—there does not, with the present demand, remain of standing pine timber sufficient for ten years to come.

Even greater destruction has resulted from forest fires, not only by reason of the immense areas through which the fires sweep, but because both large and small trees are alike destroyed. Another incidental but most important result arises in the fact that after forest fires, the first growth always consists of poplar, birch and other trees, though whether the pine, which is of slower growth, gradually in the course of long years, asserts its position and overshadowing these, in turn replaces them, is a question which observation has not yet had time to settle.

Tree planting has not yet impressed itself on the people of Ontario and Quebec as an idea necessary to carry out. Hitherto, the ambition of most farmers appear to have been to clear the land as soon as possible, and to be content if enough of wood suitable for fuel and farm use is left. Whilst lumber was cheap and the supply appeared almost inexhaustible, it would not appear necessary to most land owners to provide for the future. Besides, men are selfish, and are disinclined to go to labor and expense in regard to what does not promise immediate results, the advantage of which they will not themselves reap. And yet if we revert to the

condition of the Ontario Peninsula, as it was fifty years ago, abounding in splendid walnut, whitewood, pine and oak trees, nearly all of which have been cut down long since, and when we remember the greatly increased value which, especially walnut, lumber now has, we cannot help seeing of what immense benefit to the rising generation it would be had the trees, as cut down, been at once replaced by young trees of the same species. Already many of these young trees would have been of fair marketable size. The Maine Board of Agriculture in a memorial presented to the State Legislature, very pointedly refers to the duties of individuals on this question. "Men need to be taught," says the memorial, "that we have no moral right to follow blindly an instinct that leads only to present personal advantage, regardless of widespread future evils as a consequence; that we are but tenants of this earth, not owners in perpetuity; and that we have no right to injure the inheritance of those who succeed us, but rather a duty to leave it better for our having occupied it the allotted time. Men need to be taught to plant trees and their children to plant and love them. Owners of good lands in Maine or elsewhere will in the future learn that their bleak fields, if judiciously planted with wood to the extent of 40 per cent. of area, will produce on the remaining 60 per cent. more in all kinds of crops than the whole now does or can be made to do under any other possible course of treatment. Lands well sheltered can and do produce winter wheat in Maine as well as in New England or on the new lands in the West." In accordance with this memorial, the State Legislature provided for exemption for twenty years from taxation of all cleared lands on which forest trees had been successfully cultivated for three years, and maintained in a thriving condition thereafter. Nearly all of the Northern and Western United States have in this way statutes to encourage the planting and growing of timber trees, and the effect of encouragement in this respect has in the Western States been most valuable.

Prof. Sargent, of Harvard University, tells us that "as moderators of the extremes of heat and cold, the benefits derived from extensive forests are undoubted, and that our climate is gradually changing through their destruction, is apparent to the most casual observer. Our springs are later; our summers are drier, and every year becoming more so; our autumns are carried forward into winter, while our winter climate is subject to far greater changes of temperature than formerly. The total average of snowfall is perhaps as great as ever, but it is certainly less regular and covers the ground for a shorter period than formerly. Twenty years ago peaches were a profitable crop in Massachusetts; now we must depend upon New Jersey and Delaware for our supply; and our apples and other orchard fruits now come from beyond the limits of New England. The failure of these and other crops in the older States is generally ascribed to the exhaustion of the soil; but with greater reason it can be referred to the destruction of the forests which sheltered us from the cold winds of the north and west, and which, keeping the soil under their shade cool in summer and warm in winter, acted at once as material barriers, and reservoirs of moisture."

The influence of belts of trees on local climate is, in fact, very marked. They form obstructions to and ward off, on the one hand, the cold winds from the north which would lower the temperature and, on the other hand, the parching winds which would unduly raise the temperature and equally injure vegetation; they break the effects of storms, and in the winter time cause the snow to be equally distributed over the fields, forming thus a uniform protective covering to the ground; and if generally distributed over the western prairies they will promote the more equal distribution of the rain fall, and will prevent the streams from being dried up, as they usually become after mid-summer. Observing agriculturists have found that fields protected by belts of trees yield crops much more prolific than those not so sheltered.

In our timber regions the replanting of the pines can be to some extent left to nature, but there is every reason, since the timber limits belong to the Government, and a large annual revenue is derived from them, why the Govern-

ment should, especially in the lands which have been burnt over by forest fires, institute a regular system of tree planting. There is all the greater reason for this because of the fact that after a forest fire, trees of different species from those which were previously there, usually spring up. The expense would be comparatively trifling, and certainly insignificant, when placed beside the results which posterity would derive from it. To individuals there may seem little inducement to plant pineries which may not be available to the fullest extent for towards three-quarters of a century, but governments can have no such feeling, considering that what would be done by them would be for the future benefit of the country and a source of revenue in that future as well. What the governments can and should also do is to, as far as possible, by legislation and the insertion of clauses in their leases of timber limits, prevent the occurrence of forest fires and preserve the younger trees from injury at the hands of the lumbermen. The experience which we are yearly realizing of gradually diminishing areas of timber supply and the now nearly exhausted condition of the United States pineries, make this matter a subject of pressing national importance which, if our legislators do not now take up, they will probably find twenty years hence that it is too late.

The question of tree planting must arise in our Northwest, and the sooner it is grappled with the better for the welfare of the future millions who are expecting to people the vast prairies west of Winnipeg. In the matter of fuel alone, its importance may be estimated from the fact that there are extensive tracts of western territory where the farmers journey from ten to twenty miles by waggon or sleigh in order to obtain fuel, or where they have to rely solely on the wood train which at intervals supply them; and such farmers are often exposed to positive suffering when extensive snow blockades take place. The prairie farmer, indeed, very soon understands the value of a belt of trees on his farm, not merely as a source of fuel and fencing, but even more as a wind-break, warding off the fierce blizzards in winter, and in summer sheltering his growing crops, fruit trees and stock from the strong prairie winds which, developing into storms, cause almost every season vast injury.

It is not at all improbable that the planting of forests on the prairies in Manitoba, Dakota and Iowa, will be the solution of that most embarrassing problem—the grasshoppers—by affording obstructions to the high winds which bring these insects from their habitats in the farther west, and by furnishing suitable homes for myriads of birds which would keep the grasshoppers in check.

The planting of forests will also probably solve the question of the successful growth of fruits in Manitoba and the Northwest. Fruit trees need protection alike from storms and from parching winds, and especially in our western prairie country is this necessary. It has been laid down as almost an axiom in the Western States, that the forest trees must precede the fruit trees in order to afford such protection.

In Minnesota an earnest effort has been made to encourage the planting of trees. A State Forestry Association has been organized, and annually offers premiums for the largest number of trees planted on a day in May, denominated Arbor Day. It is estimated that in the spring of 1877 there were 5,290,000 trees planted in Minnesota, and of these over half a million were put in on Arbor Day. During the entire planting season of that year it is believed that about ten millions of trees were planted, and of these, that about seventy per cent. have lived.

The question of tree planting is one which should be actively taken up at once in our Northwest. The Government of Manitoba could not grapple with a more pressing subject for legislation, unless it be drainage. The greatest drawbacks against which the Northwest has to contend, from an agricultural point of view, are wet lands, scarcity of timber, and liability to high winds, and, in some localities, to summer frosts. Dakota and Minnesota have equally these drawbacks. The Manitoba Legislature has taken up the question of drainage, and ac-

tive efforts are now being made in some parts of the country to reclaim the wet lands. To cope with storms and frosts seems hopeless, and yet experience has found the great value of belts of trees around each farm as affording effective shields against these. What the Government there should do is to promote Forestry Associations, and to, in every way, encourage tree planting by exemptions from taxation or by direct premiums or bonuses. Any such encouragement successfully followed up will be returned one hundred fold in the larger and more certain crops, the store of wood for lumber and fuel created by the growing timber, the relief from the monotony of the prairie landscape through the belts of trees dotting the scene on every side, and not least, in a more contented and prosperous community of farmers.

ON THE UPPER ST. JOHN.

The St. John, N.B., *News* says there is plenty of snow in the woods on the Upper St. John and its branches, and the lumbermen are now fairly at work. There have been one or two days of soft weather since the heavy snow fall of a fortnight ago, which has rendered the country roads about and above Grand Falls almost impassable, but in the woods the snow was not removed to any great extent. This is a great advantage to operators in enabling them to distribute their supplies early and rapidly. The choppers are now making the frost-bound forests ring with their strokes, and the bean-pot sends forth its fragrance in daily incense offering to the powers that have smiled on the efforts of the lumberman.

Robert Connors, operator for Wm. Murray on the Allegash and St. Francis streams, this winter, has put in men and horses sufficient to handle 10,000,000 feet of spruce. Last year his operations in the same locality reached 18,000,000 feet. Mr. Connors made an effort to strike out a field for himself on Lake Temiscouata, but the high water in the streams kept the prospecting party from finding what could be done. Mr. Connors' operations are thus largely decreased. W. F. Fowler, of Fredericton, annually cuts from 10,000,000 to 20,000,000 feet for A. F. Randolph. This year his operations on the Salmon River and Tobique will not exceed 8,000,000 feet. Walker Stevens lumbers on the main St. John River for E. D. Jewett & Co., of St. John, this year, to the extent of about 10,000,000 feet. Messrs. Page & Mallott have a number of parties scattered along the main river and on the Allegash, whose combined operations will likely amount to 5,000,000 feet. W. H. Canliffe will cut 4,000,000 feet on the Allegash; W. B. West, 2,000,000 feet, on the Quisibis; Jarvis Hayward, 4,500,000 on the Fish River; Hopkins & Grant, 2,000,000 on the Wallagras for Hayford & Stetson. It is thought parties working for Miller & Woodman in the vicinity of VanBuren will cut about 20,000,000 feet all told. The estimated total of the lumber on the Upper St. John this winter is thus 65,500,000 feet. This, however, does not include the operations on the Aroostook and Tobique, which are properly on the Upper St. John, and which will swell the aggregate to not less than 90,000,000. This is about three-fourths of the amount usually obtained. As soon as convenient the *News* will furnish an estimate of the lumber to be cut on these rivers.

Quebec Culler's Office.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Scares, &c., measured and culled to date:—

	1879.	1880.	1881.
White Pine.....	1,599,273	2,235,500	3,065,274
White Pine.....	2,507,720	4,214,285	6,029,041
Red Pine.....	741,499	1,050,107	1,915,720
Oak.....	835,993	1,700,230	2,094,477
Elm.....	336,401	937,283	1,027,070
Ash.....	47,101	215,490	408,798
Basswood.....	250	363	3,049
Butternut.....	70	645	3,033
Tamarac.....	4,691	39,889	27,150
Birch and Maple.....	121,224	585,464	151,774
Masts and Bowsprits... 50 pieces		4 pieces	51 pieces
Spars.....	20 pieces		23 pieces
Std. Staves.....	171.5.3.7	195.7.1.1	418.9.2.20
W. I. Staves.....	100.2.2.20	487.7.0.8	695.7.2.10
Br. Staves.....		10.8.2.0	

ALEXANDER FRASER,
Deputy Supervisor,
Quebec, Nov. 25th, 1881.

OTTAWA EXPORTS.

OTTAWA, Dec. 3.—The following official returns show the quantity and value of the exports of lumber during the year, and it will be seen by them that the value is somewhat in excess of the previous year, notwithstanding that the quantity shipped is less. This is owing, of course, to the increased price obtained for the lumber shipped this season.

QUARTER ENDING MARCH 31ST.	
Quantity.	Value.
Hop poles.....	None. \$ 375
Ships' knees.....	621 358
Laths, Palings and Pickets, M.....	9,760 2,430
Plank Boards and Joists, ft.....	6,063,000 56,015
Shingles, M.....	35 61
Sugar Box Shooks.....	22,764 7,761
	\$97,670
QUARTER ENDING JUNE 30TH.	
Hop poles.....	None. \$ 223
Knees.....	301 267
Laths, Palings and Pickets, M.....	8,671 9,067
Plank Boards and Joists, ft.....	49,109,000 687,818
Sleepers and R. Ties.....	35,730 9,375
Match Blocks, eds.....	497 2,333
	\$914,683
QUARTER ENDING SEPT. 30TH.	
Plank Boards and Joists, ft.....	69,181,000 \$802,270
Match Blocks, eds.....	209 838
Sugar Box Shooks.....	30,800 111,116
Sleepers and R. Ties.....	407,985 8,139
Laths, Palings and Pickets, M.....	9,773 8,139
Knees.....	237 60
	\$923,464
OCTOBER.	
Planks, Boards and Joists, ft.....	19,077,000 \$249,445
All other.....	5,405
	\$255,160
NOVEMBER.	
Planks, Boards and Joists, ft.....	15,207,000 \$201,364
All other.....	7,002
	\$208,366

Total value of exports of lumber from Ottawa from January 1st to November 30th, 1881, inclusive.....\$2,069,169
 Total value of exports of lumber from Ottawa from January 1st to November 30th, 1880, inclusive.....\$1,981,557

In case for 1881.....\$87,002
 The exact quantity of the cut by mills in this vicinity during the season cannot well be ascertained. Most of the mill owners are now busy taking stock in order to give an estimate of their cut, but most of them are as yet unable to give even approximate figures. In nearly all cases, however, the cut will be found to be less than that of last year, owing to the scarcity of logs, caused by the lowness of the water in the Ottawa. Of the above, Eddy's mill cut 50,000,000 feet, Booth's 30,000,000, Sherman, Lord & Co., 12,000,000, McLane & Co. 25,000,000, McClymont & Co. 15,000,000.

MIRAMICHI SHIPMENTS.

Two hundred and eighty-four lumber laden vessels cleared from Miramichi ports, having an aggregate tonnage of 176,150 tons; 142 from Chatham, and exactly the same number from Newcastle. The shipments from Chatham consisted of 62,892,000 feet deals, etc., 7,371,440 palings and 1,087 tons timber; the shipments from Newcastle, 59,772,000 feet deals, etc., 6,599,000 feet boards and scantling, 539,009 palings and laths, and 975 tons timber. The shippers from Miramichi were:—Wm. Muirhead, 19 vessels, 10,757 tons, 10,329,000 feet deals, and 81,200 palings; Guy, Bevan & Co., 53 vessels, 26,029 tons, 21,752,000 feet deals, 2,130,000 palings; J. B. Snowball, 53 vessels, 26,381 tons, 23,370,000 feet deals, 106,140 palings, 827 tons timber; A. Morrison, 17 vessels, 8,207 tons, 7,111,000 feet deals, 50,500 palings, 260 tons timber. The shippers from Newcastle were:—H. A. & J. Stewart, 90 vessels, 52,101 tons, 33,714,000 feet deals, 5,732,000 feet boards and scantlings, 235,000 palings, 459 tons timber; Geo. McLeod, 21 vessels, 12,044 tons, 11,166,000 feet deals, 319,000 feet boards, etc., 96,000 palings; D. & J. Ritchie & Co., 16 vessels, 6,526 tons, 6,482,000 feet deals, etc., 351,000 feet boards, 30,000 palings, 416 tons lumber; Geo. Birchill & Sons, 6 vessels, 5,205 tons, 2,410,000 feet deals, etc., 167,000 feet boards, 248,000 palings. The Messrs. Stewart, it will be seen, are by far the largest shippers from the Miramichi this year, and Newcastle has fairly forged ahead an increase of about 7,600,000 feet in shipments, and Chatham a decrease of over 30,000,000 feet. —Moncton, N.B., Times.

ON THE SAGINAW.

The lumber season of 1881 is now fairly closed on the Saginaw river, and after a careful review of the same it may fairly be put down as one of the most successful for all concerned which has ever been known in the history of the business from its inception to the present time. Every one of the vast number of manufactories on the river since the commencement of operations in the spring has been uninterruptedly engaged, and a respectable number among them have been employed day and night, necessitating a double force of employees; and the result has been of the most satisfactory character to all concerned. The mills which have been employed on stock belonging to their owners have probably returned as great dividends on the capital invested as was ever known in the history of the mill business, while those which have been cutting stock for parties other than their owners, may also be credited with the most gratifying results. The prices for lumber realized at the opening of the season by the manufacturers were exceedingly satisfactory, and not only have they been steadily maintained throughout the season, but as the same progressed prices stiffened, and finally advanced perceptibly toward the close.

Notwithstanding the great activity of the mills on the river, and the enormous sales and shipments during the season, the demand has kept steady pace with the supply, thereby sustaining the buoyancy continually apparent, and finally culminating in a still healthier and more satisfactory condition, when navigation ceased, the result of which has been a slight advance on stock purchased within the past ten days for next spring's delivery. —Lumberman's Gazette.

A NEW MOTOR.

A locomotive is being built at the Grant Locomotive Works, Paterson, N.J., which will burn neither wood nor coal. The fuel will be water, which is decomposed in "association with carbon, forming readily combustible gases, of which hydrogen is the chief." The method of decomposing water at a low temperature, invented by Dr. Charles Holland, was first used as a motor in a common coal-burning locomotive on Long Island a year ago. It is now used practically in heaters and in illuminating houses. The water vapour is dissociated into its elements, oxygen and hydrogen, in the presence of the carbon of naphtha gas at a temperature of 400 deg. c. As the hydrogen burns with a heat of nearly 8,000 deg. c., a gain is effected of 18 20 of the whole heat. The engine of course is constructed very differently from the common engine. What may be termed the "gas grate," consisting of four retorts, three feeder pipes and 352 burners, occupies the place of the grate and lower part of the fire box in an ordinary locomotive. The gas passes from the retorts to the feeders, and thence to the burners, and burns with a colorless and almost invisible light. The heat of 8,000 deg. c. is greater than any heat known, except that of electric light. The use of this fuel does away with smoke, cinders and sparks. It requires but little "firing up," as the touch of a lighted match is all that is necessary. The trial of this engine will be made soon after it is completed and tested. It is said that a railroad company has offered \$1,000,000 for the right to use this process, provided that this engine will draw a train of four Pullman cars from New York to Chicago and return on schedule time.

LIKE A TREE.

A man is very like a tree,
 For instance, crooked limbs has he,
 He has a trunk; he grows somehow,
 And when he leaves he makes a bough.
 He can be cut; will often lean,
 Is always sappy when he's green.
 He is aboard when on the sea,
 And oft a-shaving, too, is he.
 When he is frightened quite a lot,
 Like trees, he's rooted to the spot.
 If he is axed too much he'll lie,
 And often will, like trees, get "high."
 He has his lumber in the night:
 Is sadly warped, and feels the blight,
 He "chips" for stakes, the ough he should not,
 And has his chops, sometimes a lot.
 He gets "deadwood" on him. Is wood.
 Is knotty when he should be good,
 And when he dies he's sure to learn,
 That he, like trees, has got to burn.

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. 110

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. 1121 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. 1147

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. 1111

E. S. VINDIN,

Commission, Shipping, Forwarding and General Agent.

LUMBER MERCHANT
 Office, Tempest's Block, Port Hope. 111

FRANCOIS MARCHAND,

Manufacturer of all Descriptions of STEAM BOILERS, SHIPS WATER TANKS, Etc. St. Roch Street, 117 QUEBEC, P. Q.

CANADA TRUSS FACTORY
 (ESTABLISHED 1856.)

F. GROSS,

Manufacturer of SURGICAL and ORTHOPAEDICAL INSTRUMENTS. ARTIFICIAL LIMBS made to order. INDIA RUBBER GOODS of every description. 1114 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. 1112

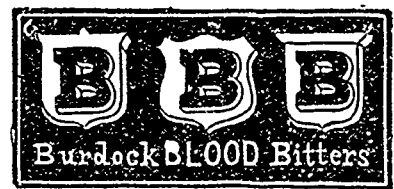
GRATEFUL-COMFORTING.

EPPS'S COCOA

BREAKFAST.

"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame. —Civil Service Gazette"

Made simply with boiling water or milk. Sold in packets and tins only (1 lb. and 1 lb.) labelled JAMES EPPS & CO., Homoeopathic Chemists, London England. 1114



Burdock Healing Ointment should be used in connection with Burdock Blood Bitters for curing Ulcers, Abscesses, FEVERS, SORES, &c. Price 25 cents per 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, 111

J. G. EDWARDS

HARDWARE MERCHANT,

LINDSAY.

BELTING, FILES, BABBIT METAL,

CHAINS, ROPE, and 1112

LUMBERING SUPPLIES.

THOS. GRAHAM

(Established 1870),

MANUFACTURER OF

New Files Old Files

HAND CUT and made from the BEST refined English CAST STEEL. All goods made put up in labelled boxes for the trade, to whom lowest prices will be given. Price list on application and sample order solicited. Reg-ground and re-cut by Hand and Warranted equal to NEW for use, at prices that will effect a great saving to Mill Owners and all large consumers of Files. Parties now sending their old files can have them shipped next spring to their order. Factory and Offices. 114

35, SHERBOURNE STREET, TORONTO.

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 War-ranted. 1115

N. H. DOWNS'
 Vegetable Balsamic
ELIXIR!
 This valuable medicine is purely vegetable, the discovery of which was the result of many years' close study, in order to discover the cause, the symptoms and the cure—viz.:
 Consumption, Coughs, Colds, Catarrh, Croup, Asthma, Influenza, Pleurisy, Hoarseness, Spitting Blood, Bronchitis, and every species of oppression of the Chest and Lungs. In all cases where this Elixir has been duly administered its efficacy has been invariably manifested, convincing the most incredulous that
CONSUMPTION
 is not incurable, if properly attended to.—Consumption at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation which the cough is more observable, but rather dry; then a local fever, and the patient more frequent, the cheeks flushed and chills more common. This Elixir in curing the above complaints, operates so as to remove all morbid irritations and inflammation from the lungs to the surface, and finally expel them from the system. It facilitates expectoration,
IT HEALS THE ULCERATED SURFACES
 and relieves the cough and makes the breathing easy. It supports the strength and at the same time reduces the fever. It is free from strong opiate and astringent particles, which are so drying a nature as to be in great danger of destroying the patient; whereas this medicine never dries or stops the cough, but by removing the cause, generally destroys the hectic fever, the cough is entirely gone. Consequently, with a thorough cure the patient will be enabled to give up all pulmonary diseases. Price 25 cents, and \$1 per bottle. Sold everywhere.
HENRY, JOHNSONS & LORD, Props.
 MONTREAL, P. Q.

Travelling Agent.

MR. A. L. W. BRIGGS 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

Adv. 'ising Rates:

Per line, for one year..... \$0 90
Per line, for six months..... 50
Per line, for three months..... 30
Per line, for first insertion..... 10
Per line, for each subsequent insertion to 3 mo's..... 05
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. JAN. 2, 1882.

CUSHING & WRIGHT'S mill, about eight miles from Moncton, N.B., was burned to the ground on Thursday night, Dec. 8th. A large quantity of lumber was also destroyed.

MR. P. MCLAREN, who was in Kingston lately, said he would have to stop timber cutting on his limits, as he could not get it in the mild weather to the streams, and to lie on the ground it would become much injured. It is quite probable that the Caldwell's will remove their Carleton Place and Almonte mills to Clyde, on the extension of the K. & P. Railway.

THE London Timber Trades Journal says that steamers from the Canadian ports, which a year ago were quite a novelty, are now becoming quite common. Three with pine deals from Quebec for account of Messrs. Bryant, Powis & Bryant have come forward lately, and there seems every prospect that the Quebec trade will be generally adopted by vessels of this class as the seasons progress.

Messrs. EDWARD JACK and Robert Connors dispute the accuracy of some portions of a paper on the white pine, by Mr. W. H. Ballou, which was read by him before the American Association for the Advancement of Science, at Cincinnati, August 19, and was reproduced in our number of November 15th. They have therefore sent us a valuable communication, which will be found in another column, on the white pine of the St. John district of New Brunswick. These gentlemen are well qualified to speak on this subject. Mr. Connors is the most extensive log hauler on the St. John River, his stumpage bill last year being \$32,000, and for thirty years he has been working himself on the head of the river, always getting large quantities of pine timber, when that was got on the river, the quantity now cut there being very small, as the trees have been nearly all cut away. Mr. Jack is lumber agent for the Province of New Brunswick, and was the explorer who selected the timber lands of Mr. Alex. Gibson, of Nashwaak. Thus they are excellent authorities as to the pine of that district.

A FIRE broke out in the saw mill owned by J. S. Snetsinger, of Moulinette, Ont., at about ten o'clock on Saturday night, Dec. 17th. The fire secured such roadway inside the mill before any assistance could be had that it was impossible to save the building or any part of the machinery. The loss of J. S. Snetsinger on building and machinery will be \$2,000, insured in the Queen Insurance Company for \$600; S. W. Bisbee, cabinet machinery, lost \$1,000, on which there is no insurance. The fire is supposed to be the work of an incendiary.

THE WHITE PINE.

BY EDWARD JACK AND ROBERT CONNORS.

The largest trees and the best quality of white pine on the St. John River, N.B., grew on the Arostook and its branches.

There are three kinds of white pine, which are probably the same tree at different periods of its growth, the difference in its appearance being caused by its age, as well as by the nature of the soil on which it grows. These three varieties are called by lumbermen, Pumpkin, or old pine, Bull Sapling, and Common Smooth-barked Sapling.

The pumpkin pine usually grows as a scattering tree, often alone, and sometimes it is found in bodies and clusters. It usually grows in the greatest quantities around the shores of lakes and on the banks of large streams, sometimes following small streams to their sources. It also occurs in valleys running into hill or mountain ranges. As you ascend ridges the pine usually becomes scarcer and more scattering. One sometimes, however, finds a lonely tree towering up like a giant on the summit of some lofty hill, where it may have braved the storms of northern winters from a date prior to the Norman conquest of Great Britain to our own times.

Pumpkin pine is much subject to hollow rots, the hole commencing at the butt, where it is frequently of large size, but it usually does not extend far up the trunk of the tree. Woodsmen call this junk rot. It is a dry rot, as the decayed wood can be taken out in lumps or sections of various weight when the tree is cut down. Hollow-heart, which is different from junk rot, runs much farther up the trunk of the pine, extending sometimes even to the branches. When a tree has either of the two above defects, the sound wood remaining is invariably free from shakes and of the best quality. The pumpkin pine is not so subject to "concasse," a defect hereafter to be described, as the bull sapling or common smooth-barked white pine, and it is in general only found where pumpkin pine grows thick. The large wood ant is the greatest enemy of the white pine. It attacks the tree either in its base or in the branches, where a case knot, which is caused by the decay of some small branch, occurs. Wherever there is a crack or crevice in the tree the ant will work his way in. There are generally rift shakes running through the heart of the very best pumpkin pines. This is the ants' grand opportunity, and they avail themselves of it. The ant seldom attacks any other tree than the pumpkin pine and fir, the former being on the St. John River a very soft wood, indeed softer, freer from sap, and better than the Michigan pine.

At certain seasons of the year the wood ants, or probably only the males, are winged; these wings they lose, and old timber makers say they have seen the ants carrying their wings in their mouths. These ants remain all winter in hollow or rotten places in the pumpkin pine, in a torpid condition. When the trees are being felled in winter, it is often the case that bunches of these frozen ants fall out of the holes, and it is no unusual thing for the genuine old pine timber maker (a race of men fast passing away in New Brunswick) to gather these frozen ants in his hand and eat them. They say that their taste is much like that of the cranberry. The usual age of the full grown and mature pumpkin pine is likely not less than 800 years, probably much greater. Its wood is very seldom shaky, unless when growing in very wet and swampy places.

BULL SAPLING.

This tree also loves the shores of lakes and streams, and its wood is harder and heavier than that of the pumpkin pine. It has a thick sap;

this sap is thicker on trees which grow scattering among hardwoods on ridges, where the growth is more rapid than in low spruce lauds, where the growth is slow. This tree is almost always more or less shaky at the butt. It is seldom hollow-buttled. The best and least shaky trees grow upon the sides of ridges, where they stand exposed to the winds. The tops are usually large and sound, extending a greater distance from the trunk of the tree than do those of the pumpkin pine, although the branches of the latter tree are usually much larger in diameter than those of the bull sapling. The colour of the tops of these trees, when viewed at a short distance, is of a much darker green than those of the pumpkin pine. There are many shades of green in the colour of the leaves of the bull sapling, the best and thickest growth being of the darkest green. When a woodsman notices a yellow shade in the colour of the tops he suspects inferior trees, especially on low ground, and these are always shaky. The defects in the bull sapling arise principally from rots and shakes. It is seldom attacked by worms unless after it is dead.

CONCASES.

There are three kinds of "concasse," the ordinary open one, the pitch and the blind. The open concasse is a long and somewhat narrow depression in the side of the tree, the centre being hollow. On the outside of the tree, near the bark around the concasse, the wood is sound, two or three inches from this sound wood the rot begins and spreads in every direction, both up and down the tree, frequently for a distance of from five to six feet from the concasse. This does not extend around the tree; usually only about one-third of the way. It is the worst kind of concasse.

The pitch concasse forms a lump on the outside of the bark, and may be detected by the drops of pitch oozing from the spot. There are generally more than one, and frequently five or six of these on the one tree, generally on one side. The rot does not extend from these nearly so far as from the other two kinds, usually ending at a distance of from one to three feet from the point of their first occurrence in a pitchy wood, streaks from which may extend into the tree.

Blind concasse can be detected in the growing tree by the eyes of the experienced woodsman only. The evidence of this defect is the occurrence of a small flat curl in the bark. There is usually no swell in the tree at this place. On cutting into the wood here to a depth of about two inches nothing remarkable is to be seen; cutting in, however, a few inches deeper, the wood appears yellow or dark, and impregnated with pitch. Cutting further in you come to a lump of black pitch, filling a cavity in the wood, which runs to the heart, the rot extending upwards and downwards from it, usually farther than in either of the other two kinds. Many are usually found in the same tree, rendering it completely useless. Sometimes a tree having blind concasses in it is sound at the top and butt. When such is the case the timber maker frequently deceives the buyer by noticing on which side the concasse occurs, and where there is but one of these, hews his timber in such a manner that the concasse occurs exactly at one of the angles of the timber. This has often been done on the St. John River, and the timber has passed inspection there and gone to Great Britain.

Another defect in the white pine is case knot. This consists of a hole two or three inches in diameter running into the heart of the tree, where it ceases. There is no rot accompanying it. It is caused by the rotting out of a limb, leaving its case, which is a hard rim, behind it. Black knots, which are not much regarded on the Upper St. John, are caused by imperfect growth of the tree.

The white pine is one of the thriftiest and healthiest trees which we have; even when half chopped through it will continue to grow vigorously, and trees which are supported by a mere shell will grow well when the heart is rotten from end to end.

The first indications of death in the pumpkin pine and bull sapling appear at the top. When this is bare and barkless for a few feet it is a tolerably sure indication that the tree is worth less,

THE COMMON SAPLING PINE.

This is abundant everywhere, and generally constitutes a large part of the second growth in pine lands which have been burned, usually occurring with white birches and poplars. It is a tree of rapid growth, and in half a century after it starts from the sod, when growing in the soil most suitable to it, will make a good saw log from 12 to 18 inches in diameter. It grows best in light, gravelly soil. The wood of this tree is seldom shaky, though frequently coarse and knotty.

SHAKE.

The origin of this defect is uncertain. It is not caused by the action of the wind, since pine trees are always found more free from shakes when they grow high up on the hill sides among hardwood trees, where they are exposed to the severest storms, while those growing on flat land under hills, even in the most sheltered places, are always the most shaky. Wet soil and frost are probably the cause of shaky wood. On chopping into a pine growing in low swampy land in summer, water will frequently follow the axe. This water must exist between the rings of annual growth, and in the winter it forms ice. The expansion caused by freezing destroys the cohesion of the annual rings, and when the board which is sawn from the tree becomes dry the small cracks in the wood show themselves very distinctly, rendering it useless for many purposes.

QUEBEC STOCKS.

Our shipments show a decrease this year compared with 1880 of 97,017 tons of lumber, or nearly four million cubic feet; and in deals they show a decrease of 1,047,076 Quebec standard pine, and 102,788 Quebec standard spruce. The falling off in timber is chiefly in white pine, square and waney, which show a decrease of 61,267 tons. Red pine comes next with a shrinkage in quantity of 12,780 tons, and oak follows with a reduction of 10,837 tons. This heavy falling off in our exports would, at first glance, indicate a very unhealthy state of trade; but as we have already explained in a previous article, the prices obtained this year have been on the whole very satisfactory, and the season's business will furnish a profitable showing both to shippers and manufacturers, more especially the latter. In fact, during previous years, the English markets were overstocked and our lumbermen continued keeping up their usual supply in the expectation every year that the tide would turn. Finally the crisis reached its height, and production became greatly lessened. This, with the clearing off of stocks on the other side, has restored the market to a healthy tone, and the light exports this year are an indication that this healthy state of things will be continued at any rate next season. Compared with stocks wintering last year, white pine, square, shows a decrease of about 1,500,000 feet, but waney shows an increase of about 700,000 feet. Red pine shows an increase of about 800,000 feet, oak 1,300,000 feet, and elm 260,000 feet; and the quantity of deals wintering is very little different from last year. The supply getting out will not exceed that of last season. The probable supply of pine from Ottawa section will be,—white, 700,000, and red, 1,000,000 feet, about equal to last year's manufacture. The trade, therefore, shows a healthy outlook in these important particulars, light stocks on the other side, moderate stocks in ports, and a moderate quantity being got out. Our lumbermen have learned by experience the value of their limits, and understand that their safest course lies in husbanding their resources, and not cut down timber indiscriminately and recklessly, as was formerly the custom.—Times.

The Strength of Wooden Columns.

Some important tests of the strength of wooden columns, such as are in common use in the construction of cotton and woollen mills, have lately been made at the instance of Mr. Atkinson, President of the Boston Manufacturers Mutual Fire Insurance Company. The tests were made with the testing machine at the Watertown Arsenal. The formulas in use for computing the strength of wooden columns are based on tests applied to columns of about two inches on a side and four or five feet long. The new tests were made with columns of pine and

oak of the size and length used in actual construction. All but two were round, hollow columns, of from eight to eleven inches diameter, the two being about nine inches square. The greatest amount of pressure exerted in any case was about 265,000 pounds. The tests have disclosed frequent instances of defective boring in the columns. The object in boring is to open an air passage through the heart of the stick for the prevention of dry-rot after it is in position in the building. It is essential, of course, that the bore should extend from end to end, but this has not always been effected. The sticks were first bored from one end and then from the other, and the borings have sometimes failed to meet in the middle of the stick. The tests also show that to taper the sticks is a mistake, inasmuch as it weakens the column more than has heretofore been estimated. Reasons for exercising more caution in other respects in the construction and adjustment of wooden columns in building have also been disclosed.—*Scientific American*

Precautions Against Waste.

An Ottawa correspondent says that a new code of timber regulations for the North-western Territory has been promulgated, which it is thought will prove more satisfactory than those previously in force. Mr. Thos. Anderson, the timber inspector for the Northwest, will be vested with discretionary power to deal with questions arising under the Crown timber regulations without reference to Ottawa. Permits will still be required by persons cutting timber, but it is understood they will be chiefly formal and for the purpose of preventing waste, and to keep the wood in the control of the Government until the lands are surveyed and entered upon. The cost of a permit for a settler's building material is fifty cents, and rails cut for use on the place, and not for purposes of sale or speculation, free, and firewood for one's own use free. Cordwood cut for sale will be subject to a charge of fifteen cents a cord. Cutting timber to hold for speculation purposes without first obtaining the necessary permits, and destroying timber before the land is entered for, under the pretence of clearing the land for cultivation, is absolutely forbidden. The inspector has been instructed to take every precaution against waste.

Produce of Crown Forests.

From the reports of H. M. Commissioner of Woods and Forests, just published, we find the receipts from the sales of produce of Crown estates for the year ending March 31st, 1881, were as follows:—Windsor Park and Woods (timber, bark, poles, cordwood, &c.), £1,938 1s. 1d.; New Forest, £8,360 11s. 6d.; Dean Forest, £6,377 10s. 2d.; Highmeadow Woods, £4,123 6s. 11d.; Alice Holt Woods, £650 11s. 4d.; Woolmer Estate, £148 14s. 6d.; Boro Woods, £939 17s. 9d.; Parkhurst Woods, £343 12s.; Stagsden Woods, Bedford, £349 2s. 3d.; Delamere Woods, Chester, £701 6s. 6d.; Chopwell Woods, Durham, £49 8s. 9d.; Manor of English Bicknor, Gloucester, £6 2s. 2d.; Eltham Woods, £185 6s. 1d.; Eltham Estate, Kent, £84 6s.; Torver Woods, Lancaster, £4 19s. 4d.; Hazleborough Woods, £340 6s. 3d.; Salcey Woods, Northampton, £888 19s. 1d.; Egham Estate, £52 10s.; Esher Estate, £1; Esher Woods, Surrey, £782 11s.; Poyning's Woods, Sussex, £28 3s.; Bishops Cannings, Wilts, £684.

Douglas Fir.

This king of forest trees, which is the pride of Oregon and Washington Territory, makes the best ship timber in the world. A principal quality of the wood is a flexibility and tenacity of fibre rarely met with in trees so aged. It can be bent and twisted several times in contrary directions without breaking. Mats and spars made of Douglas fir are rare and exceptional for dimensions and superior qualities, such as strength, lightness, absence of knots, and other grave vices. Mr. Wilson Saunders was once ordered by the Lloyds to test the strength of all the woods obtainable for ship-building, and he reported that none of the woods approached the strength of the Douglas fir and pitch pine, it having required a weight of 280 pounds to break a small bar of these woods no more than an inch and a quarter square. Between the Douglas fir and pitch pine, whose strength was equal,

there was this difference, that while the latter snapped short off, the Douglas yielded unwillingly, with a rough and long rend. Often 200,000 feet of Douglas fir is cut from one acre of land, and there is said to be enough of this timber in Washington Territory alone to supply the navies of the world.—*Northwestern Lumberman.*

The Duluth Cut.

The *Lake Superior News* says last winter there were cut in the district, of which Duluth is the centre, between 75,000,000 and 80,000,000 feet of logs. The latter figure, even, was much below the estimates made early last winter, because the season was extremely unfavourable. The deep snows, especially in the latter part of the winter, interfered very materially with work in the woods, and made logging expensive. Careful enquiry among our lumbermen enables the *News* to give reliable figures as to the probable cut of logs this winter. If we have an ordinary winter these figures will be found next season to have been nearly accurate, but should there be very little snow, then these calculations will be somewhat disturbed. We estimate the total cut at 183,000,000 feet, or more than double the cut of last winter. There is nothing extraordinary in this, considering the number of new mills either completed the past season or now under way. By next July the sawing capacity in this district will be double that of last spring, the most prominent new mills being those of the Duluth Lumber Co., G. W. Peck & Co., Soxsmith Bros., and the Oneota Lumber Co.

Lumber Receipts At Buffalo.

Receipts of lumber, etc., at Buffalo by lake during the month of November, and for the season of navigation, were:—

	Nov.	Season.
Lumber, ft.....	23,896,700	240,802,100
Lath, pieces.....	118,000	2,803,000
Shingles.....	7,745,000	25,249,000
Staves.....	100,000	3,886,275
Hoops.....		7,004,000

The lumber receipts for the season of 1880 were 214,169,354, and for 1879, 202,443,612 feet.

ST. JACOBS OIL
TRADE MARK



THE GREAT GERMAN REMEDY FOR RHEUMATISM,

Neuralgia, Sciatica, Lumbago, Backache, Soreness of the Chest, Gout, Quinsy, Sore Throat, Swellings and Sprains, Burns and Scalds, General Bodily Pains, Tooth, Ear and Headache, Frosted Feet and Ears, and all other Pains and Aches.

No Preparation on earth equals St. Jacobs Oil as a safe, sure, simple and cheap External Remedy. A trial entails but the comparatively trifling outlay of 50 Cents, and every one suffering with pain can have cheap and positive proof of its claims.

Directions in Eleven Languages.
SOLD BY ALL DRUGGISTS AND DEALERS IN MEDICINE.
A. VOGELER & CO.,
Baltimore, Md., U. S. A.

CURRIE BOILER WORKS

ESTABLISHED 1852

MANUFACTURERS OF

STEAM BOILERS.

NEW and SECOND HAND ENGINES and other Machinery on Hand and for Sale.

CURRIE, MARTEN & Co.

111y



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 fine season and before this 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 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.
12d10 113

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.

CHARLOTTETOWN,

1129 PRINCE EDWARD ISLAND.

MACK'S MAGNETIC MEDICINE.



Is a Sure, Prompt and Effectual Remedy for Nervousness in ALL its stages, Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Supermenstruation, Seminal Weakness, and General Loss of Power. It repairs Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs. The experience of thousands proves it an INVALUABLE REMEDY. The medicine is pleasant to the taste, and each box contains sufficient for two week's medication, and is the cheapest and best.

Full particulars in our pamphlet, which we desire to mail free to any address.
Mack's Magnetic Medicine is sold by Druggists at 50 cts. per box, or 12 for \$5, or will be mailed free of postage, on receipt of the money, by addressing
MACK'S MAGNETIC MEDICINE CO.,
d138-w49-L23 Windsor, Ont., Canada.
Sold by all Druggists in Canada.

STEAM, SAW & SHINGLE MILL FOR SALE,

111 Acres of Land, Four Frame Houses, Etc.

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

T. COOPER, Cooper's Falls, Ont.

WANTED.

ABOUT

250,000 ft., board measure, of First Quality WHITE OAK TIMBER,

AND

100,000 feet of one-inch PINE BATTENS, for Car Sheeting.

For further particulars address P. O. Box 514,

361 MONTREAL, QUE.

J. T. LAMBERT,

Lumber and Commission Agent.

FOR SALE.

150 Mils. 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	11 "
40 " do	2 x 10 Joists.
18 " Cedar,	3 x 6 "
19 " Basswood,	1 1/2 inch.

APPLY AT THE OFFICE, 1111

WELLINGTON STREET, OTTAWA.

WANTED.

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

Quote Price delivered, and Carefully

Describe:—Quality, Widths, Length,

Thickness, and how long awed.

ROBERT C. LOWRY,

Wholesale Lumber,

55 Pine Street, New York.



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.

QUEBEC EXPORTS, 1880-1881.

The following Comparative Statement of Wood Goods shipped from Quebec and the Lower St. Lawrence from the opening to the close of navigation, during the years 1880 and 1881, is compiled from the Custom House Returns by the Quebec Times:—

Tons.	London.		Liverpool.		The Clyde.		East Coast		Ireland.		Other Ports.	
	1880-1881.	1880-1881.	1880-1881.	1880-1881.	1880-1881.	1880-1881.	1880-1881.	1880-1881.	1880-1881.	1880-1881.	1880-1881.	1880-1881.
Oak.....	2,949	2,310	22,631	16,011	10,758	9,374	10,534	10,192	1,668	1,619	9,481	7,572
Elm.....	2,935	1,893	4,142	2,916	7,435	5,721	6,738	5,292	1,002	674	3,773	3,438
Ash.....	2,667	2,513	1,056	1,748	1,397	1,974	1,515	1,530	307	313	497	806
Birch.....	5,422	2,063	1,118	382	1,537	1,071	3,907	1,914	617	496	1,570	926
Walnut.....	1,556	886	71	61	233	423	289	42	8	180	131	171
Hickory.....	197	208	1,097	845	225	187	249	477	117	113	11	239
White Pine.....	4,533	5,369	62,390	40,110	73,275	56,225	58,752	55,545	11,506	10,484	77,798	59,814
Red Pine.....	1,139	1,616	2,768	1,587	12,066	6,647	2,633	1,346	10,396	6,263	6,796	5,641
Total shipments.....	21,293	18,659	95,773	63,815	106,966	81,628	84,617	76,288	25,008	20,097	99,867	78,004
Pine Deals Quebec Standard.....	526,405	1,276,188	1,484,968	912,133	891,427	460,347	834,110	517,114	114,703	63,182	971,630	638,233
Spruce Deals.....	1,482,327	1,475,334	184,690	178,932	115,396	104,378	64,870	109,369	778,393	733,919	574,528	496,160
Pine Staves, Mills.....	41½	56	58	45½	74½	58	23	8½	112½	177	87½	140½
W. O. W. I. ".....	93	143	195	150	423	143½	5	2	63½	47	186½	117
Lathwood, Cords.....		15	28	6	26	86	30	15	78	58	466	404

The total shipments of each kind of timber in each year were as follows:—

Shipments.	1880.	1881.	1890.
Oak, tons.....	57,921	47,084	10,837
Elm.....	26,045	19,929	6,116
Ash.....	7,338	5,892	
Birch.....	13,971	6,847	7,124
Walnut.....	2,363	1,718	570
Hickory.....	1,890	2,019	
White Pine.....	298,814	277,547	61,267
Red Pine.....	36,830	23,050	12,780
Total.....	434,103	337,086	98,004
Deficiency 1880 Ash.....		1,564	
" " Hickory.....		123	
		1,977	
Set excess of shipments in '80 over '81..		97,017	

Shipments.	1880.	1881.	1890.
Pine deals, Quebec std.....	5,823,263	3,867,187	1,947,076
Spruce deals.....	3,200,130	3,097,342	102,789
Pine Staves, Mills.....	392	490½	
W. O. W. I. ".....	921	662½	318½
Lathwood.....	628	554	44

Statement of timber, staves, &c., wintering at the port of Quebec during the winter of 1881-1882:—

White Pine, Square, feet.....	4,626,102
" " Wanoys.....	1,519,950
Red Pine.....	2,145,838
Oak.....	1,918,622
Elm.....	499,912
Ash.....	210,101
Birch.....	51,992
Basewood.....	1,380
Tamarac, Square.....	8,956
" " Flatted.....	21,678
Black Walnut.....	20,018
White Wood and Balm of Olead.....	42,625
Butternut.....	2,240
Maple.....	14,331
Hickory.....	98,330
Cherry.....	2,415
Spruce.....	11,411
Hemlock.....	6,324
Stand. Staves, Mbl, M.....	214
" " Cull.....	12
W. O. W. I. Mbl.....	141
" " Cull.....	37
R. O. W. I. Mbl.....	97
" " Cull.....	5
Barrel.....	10
Pine Deals, Mbl, stand.....	1,483,667
" " Cull.....	224,930
Spruce, Mbl.....	743,437
" " Cull.....	66,691
Blank, Pine & Spruce, 1, 1½, 1¾, & 2 in., ft.....	10,176,314
" " Hardwood.....	17,433
Ash Oars, Pairs.....	none
Handspikes, Pieces.....	none
Red Pine Lathwood, cords.....	14
Hemlock.....	160
White Pine Blasts, Pieces.....	45
Red and White Pine Spars.....	108
Spruce Spars.....	676

Cheap Paint.

It is said upon good authority that those wishing to paint and protect inside walls of shops, factories or mills will find the following an excellent and cheap recipe, which will last much longer than any ordinary whitewash:— Three hundred parts washed and sieved white sand, 40 parts of precipitated chalk, 50 parts of resin, and 4 parts of linseed oil are mixed and boiled in an iron kettle, and then one part of oxide and copper and 1 part of sulphuric acid are added. This mass is applied with an ordi- nary brush while warm. If it is too thick it is diluted with linseed oil. This paint dries very rapidly and gets very hard, but protects the wood excellently.

PROTECTION FROM FIRE.

To the Editor of the Canada Lumberman.

LUMBERMAN'S CAMP, Dec. 10th.

MR. EDITOR,—It has been justly said that "He who causes two blades of grass to grow where one grew before, is a benefactor of mankind." In like manner it must be admitted that the Canadian who can check the destruction of millions of pine trees annually would be proportionately esteemed by his countrymen; and yet none of our public men seem to aspire to this distinction by devoting their time and talents to devising means to stay the ravages by fire in our forests, which are the greatest source of wealth belonging to us.

Every now and then a feeble cry is raised in condemnation of this species of vandalism, and warning voices are raised both by the press editorially and through its correspondence columns, pointing out whither we are drifting, and showing the irretrievable loss we will soon have to deplore, but little or nothing is being done by those whose office it is to stay or check this scourge. True, the Ontario Legislature did a few years back pass a law for "the preservation of the forests from fire," but it has been a dead letter from the time it was entered on the statute book until the present day, for have not dreadful bush fires raged through the country, destroying immense tracts of wooded land, about as regularly as a dry season comes round, since those regulations became law, and can a single case be shown where an offender against those regulations has been, or was even sought to have been, punished? and this for the simplest of all reasons, no one was empowered to see the law enforced, or rather to detect the offender!

We see our pineries disappearing before our eyes, mainly through fire, and know that their value, if preserved, would be greatly increased in another generation, yet we fold our hands, deplore the loss, but do nothing. Money is spent lavishly in the endeavour to introduce new agricultural products, the cultivation of flax, the introduction of vineyards on a large scale, the replanting of forests, etc., etc., but to hold that which we have, and which is of ten thousand times more value to Canada, we do nothing! We value two birds in the bush more than one in the hand.

It is strange that a reform, so much needed, has so few, if any, advocates in Parliament. Why do not some of our talented and patriotic men take this matter up and compel the Government to protect the forests. Several representatives in the Dominion and Provincial Parliaments belong to lumbering districts, are perfectly aware of the loss to the country, and might readily point out a remedy, that is a system to be adopted to check the waste occasioned by the ever-recurring bush fires. Some of them have sufficient talent and influence to make their voices heard and heeded. Whoever first takes this question in hand and follows it up persistently until the end, will be deserving of the country's gratitude.

Lumbermen themselves, whose influence has helped many a member to his seat, should unitedly urge their representatives to agitate this question.

The writer is too humble to hope for much success through his pen, and in writing to you, Mr. Editor, is prompted by a desire to induce others who know of and deplore the loss the Dominion is sustaining, to use their more able

pens in urging the country to take this matter earnestly in hand.

If not trespassing too far I would point out a scheme which, from the observations of a lifetime passed in the woods, appears to me to be feasible.

Let a special department for the preservation of the forests be formed, under the present respective Commissioners of Crown Lands, if the case be taken up by the Provinces, and if not, by the Dominion Government. This department to have a chief at a sufficient salary, etc., to induce a competent man to accept the office. Under, and appointed by him, let there be a certain number of Head Inspectors, each having an extensive district to superintend, in about the same ratio as local Crown Land Agents are now established, indeed, the two offices might be combined. Under the head inspectors, fire inspectors might be appointed at the rate of one for each township, in the present "fire district." These men, as well as their superiors, should be sufficiently paid to induce men of good morality, some education, and thoroughly acquainted with bush life, to aspire to the place, and in the free grant districts might be allotted say 1,000 acres of land within their beat as a homestead.

The principal duty of the fire inspector would, of course, be to prevent fires from destroying the forests, and upon their success or failure in this should depend their retention of office; but besides, they should be perfectly familiar with every lot in their beat (when located in surveyed townships) and should report on each lot to the head inspector, whether fit for cultivation, how wooded, etc., and if located by a settler whether such settlement would endanger pineries adjoining. No pine lots should be open for settlement. Nor should squatters be allowed to settle down and make clearings without permission granted by the head inspector of the district, on his subordinate's report. The present or future settler should not be allowed to burn his fallow without a written certificate from the fire inspector, and one condition of obtaining a free grant should be the obligation of being guided by the fire inspector in matters of firing his fallow. As by far the most destructive fires are caused by river drivers, either in allowing camp fires to be left burning, or in setting out smudges to drive away the flies, inspectors, whose beat would not require supervision in summer, because not settled upon, should be detailed to accompany the drives and keep a sharp lookout that the law is enforced. Their duty it would also be to report to the head inspector any infringement of the law, collect evidence, and furnish their superior officer with facts upon which the latter would prosecute delinquents without fear or favour. A very few such prosecutions, with the enforcement of the penalties attached to the offence, would soon and effectually check this source of fires. Although the provinces derive a large revenue from their forests, and might well afford to be at some heavy expense in preserving them, by forming a special department for the purpose, yet I contend that it may be made, if not wholly, at least to a large extent, self-supporting. The Dominion Fisheries Department shows us an example of a large staff of employees at work, and yet bringing a revenue to the country while preserving a source of wealth to the country, the Inland Branch of this department having been formed through the

untiring efforts of one man, I am told, but twenty years back. So the records of Ontario attest to the greatly increased revenue from the forests on the appointment of the present able Assistant Commissioner of Crown Lands, with a numerous staff of bush rangers. As already hinted, the present Crown Land Agents might do duty as head inspectors, entitling them to higher pay. The staff of fire inspectors could fill the place of the present wood-rangers, many of the latter being admirably fitted to act as head inspectors and Crown Land Agents combined. Trifling fees might be charged at local offices for every lot located, and when settlement duty is fulfilled it should be the duty of the head inspector to furnish a patent from the Crown without any further trouble to the farmer. A fee of at least \$5 would readily be paid by the applicant, and in many cases would be less than they now have to pay through furnishing affidavits, getting letters written, often to no purpose, and finally having the patent refused, forsooth, because some limit-holder objects to the patent being issued.

As the fire inspector's duties would be almost nil, say from October to the end of April, in averting fires, and as it would be desirable to have him permanently in office, it might be a condition of renewing licenses that all saw-logs and other descriptions of stuff, apart from square timber perhaps, be measured and culled by the inspector, exacting a certain rate from limit holders. In many cases the poor jobber would be protected by having his work gauged by a sworn and disinterested man, and the revenue would certainly not show a deficit thereby, but the fee charged would go far towards paying the inspector's salary, and in some cases exceeding it.

By some such system as here sketched, the bush fires now causing such enormous losses to the country might be lessened. It is to be desired that others more able than the writer will see the needed urgency of some remedy and draw the attention of those in power to the matter.

Your obed't serv't,
JERSEY.

BOARD OF TRADE RETURNS.

The following figures are furnished by the Board of Trade, for the year 1881:—

MONTH ENDED 31ST OCT.		
	QUANTITY.	VALUE.
Timber (Hewn).	Loads.	£.
Russia.....	18,759	40,406
Sweden and Norway.....	73,581	121,769
Germany.....	20,901	68,835
British North America.....	39,592	108,073
Other Countries.....	37,829	80,533
Total.....	190,662	485,705
Timber (Sawn or Split, Planed or Dressed).		
Russia.....	167,371	438,102
Sweden and Norway.....	245,730	608,589
British North America.....	117,602	290,403
Other Countries.....	15,139	42,165
Total.....	545,842	1,379,259
Staves (all sizes).....	13,298	61,674
Mahogany (tons).....	5,137	45,665
Total of Hewn and Sawn.....	734,504	1,864,904

TEN MONTHS ENDED 31ST OCT.		
	QUANTITY.	VALUE.
Timber (Hewn).	Loads.	£.
Russia.....	193,067	388,329
Norway and Sweden.....	622,491	314,010
Germany.....	177,541	546,814
British North America.....	229,614	986,256
Other Countries.....	453,408	1,309,161
Total.....	1,678,111	4,038,500
Timber (Sawn or Split, Planed or Dressed).		
Russia.....	785,789	1,879,294
Sweden and Norway.....	1,153,732	2,709,678
British North America.....	762,322	1,985,139
Other Countries.....	296,381	645,623
Total.....	2,998,224	7,419,864
Staves (all sizes).....	94,131	434,713
Mahogany (tons).....	29,734	270,447
Total of Hewn and Sawn.....	4,575,835	11,458,433

Big Timber.

On the limits of Messrs. R. & G. Strickland, in the Township of Oakley, in Victoria County, in the shanty of which Capt. Leon Dion is foreman, a liner named Lach. McLean recently made in one day two pieces of timber, one forty seven feet in length by thirty five inches girth, and the other forty-five feet, by thirty-five inches. McLean is an old liner who has made timber both in Michigan and Canada, and he says he has never before made as big or as nice timber as he is now making in Oakley.

Chips.

At Phillips, Franklin county, Me., \$15 a thousand is being paid for white ash logs delivered at the mill. The timber is used for fork haulers.

It is estimated that there are fully half a million saw logs lodged in bays and creeks along the shores of the Ottawa River, and about 2,000,000 stuck in the Chate Rapids.

A GENTLEMAN who has just returned from the Upper Ottawa district says there is ten inches of snow on the Coulonge, about 160 miles north of this city. Lumbering operations are progressing favorably there.

It is stated that there is a project started in Minneapolis, Minn., to utilize the sawdust from the mills there, by mixing it with peat, grinding the compound, and then moulding the product into blocks of convenient size for fuel.

THERE has been a cypress tree felled in High Hill Creek, Darlington county, S. C., by N. B. Jordan, which measured 25 feet in circumference at the butt. Two good axemen wore four hours and 50 minutes cutting it down.

HUGH SUTHERLAND & BRO., of Winnipeg, have sold out their retail business and intend going into the wholesale and manufacture of lumber only. They have let a contract to a firm at Grand Rapids, Michigan, for the erection of a new steam saw mill to cut twenty million feet per annum.

It is stated that the sales of spruce gum in Maine aggregates each year over \$40,000; collected partly by men who make it a business, but largely by lumbermen. This is a "timber product" that we fancy has not figured extensively in the reports, but it has been mighty active in the mouths of the girls.

A TREE that was eight hundred feet in length, ninety-six in circumference at the base, and sound to the very heart, was felled in California recently. Five men were twenty-two days in doing the work. After it had been completely covered by auger holes, it still stood unmoved, and required blocks, pulleys, and tacking to bring its proud head to earth.

THE Chicago Tribune says that from the streams in the Saginaw lumber district there was rafted during the season of 1881 a total of 856,592,000,000 feet of logs; handled by railroads, 164,500,000. There is held back in the several streams 430,000,000 feet, making a total product rafted in sight of 1,451,557,617 feet, an increase over the product of last year of 361,104,689 feet.

THE Bradford Expositor says we are informed that Messrs. Yates & Stratford, of this city, made on the 7th of December, from Point Edward to Montreal, the largest consignment of sawn white oak lumber ever made in Canada, by one firm, at one time, viz.:—Two train loads, consisting of forty-four cars, and that this firm will have shipped of this material to different parts of the Dominion and the United States during the present year 1,500 car loads.

THE dams erected at the falls at Bracebridge by the Muskoka Slide, Dam and Boom Company materially deteriorated the value of the water power owned jointly by Messrs. R. E. Perry and T. Myers, who claimed from the Company \$2,500 as compensation. It was thought the amount of compensation would have to be decided on by arbitrators, but the question has been amicably settled without resort to this method, by the Company agreeing to pay \$1,750 to the claimants.

A DESPATCH from Eau Claire says:—As near as can be estimated, the lumber cut of the Chippewa Valley the past season will amount to 300,000,000 feet, the greater portion of which was sent to Mississippi markets via raft. The cut of the Eau Claire mills will reach nearly 150,000,000 feet. There are now at least 200,000,000 feet of logs in the Chippewa river, including the amount in Beef Slough, that are available. Half Moon Lake is full, and, with the amount in the different booms, there are 20,000,000 feet. With a favorable winter, the cut in the Chippewa Valley will not fall short of 650,000,000 feet. The roads are in splendid condition for snow, and there seems to be no limit to the number of men going to the pineries.

INLAYING WOOD BY PRESSURE.

An exchange says that a new method of inlaying wood has been contrived by a furniture house in England. The process is as follows:—A veneer of the same wood as that of which the design to be inlaid consists—say sycamore—is glued entirely over the surface of any hardwood, such as American walnut, and allowed to dry thoroughly. The design is then cut out of a zinc plate about one-twentieth of an inch in thickness, and placed upon the veneer. The whole is now subjected to the action of steam, and made to travel between two powerful cast iron rollers, of eight inches in diameter by two feet long, two above and two below, which may be brought within any distance of each other by screws. The enormous pressure to which the zinc plate is subjected forces it completely into the veneer, and the veneer into the solid wood beneath it, while the zinc curls up out of the matrix it has just formed, and comes away easily. All that now remains to be done is to plane down the veneer left untouched by the zinc until a thin shaving is taken off the portion forced into the walnut, when the surface, being perfectly smooth, the operation will be completed. It might be supposed that the result of this forcible compression of the two woods would leave a ragged edge, but this is not the case, the joint being so singularly perfect as to be unappreciable to the touch; indeed, the inlaid wood fits more accurately than by the process of fitting, matching and filling up with glue, as is practised in the ordinary mode of inlaying.

SHANTY LITERATURE.

Mr. J. J. Gartshore, of Toronto, Secretary-Treasurer of the Young Men's Christian Association of Ontario and Quebec, writes to us enclosing a copy of the following resolution passed at the Convention in October at Cobourg:—

"RESOLVED,—That, recognizing, the great need for the distribution of good literature, especially among the working classes in the lumbering and other establishments where large numbers of men are employed, this Convention recommend that the Associations use every effort to induce employers of these men to subscribe for publications of a good character for their use."

Mr. Gartshore adds that the Executive Committee would gladly assist in any way those who wish to do something in the matter.

CAUSE AND EFFECT.—The main cause of nervousness is indigestion, and that is caused by weakness of the stomach. No one can have sound nerves and good health without using Hop Bitters to strengthen the stomach, purify the blood, and keep the liver and kidneys active, to carry off all the poisonous and waste matter of the system.—*Advance.*

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

"FRIENDSHIP," Cicero says, "is the only thing in the world concerning the use of which all mankind are agreed," but all writers agree that a good pen is a desideratum, and Esterbrook's will be found to be A1.

MACK'S MAGNETIC MEDICINE is an unailing food for the Brain and Nerves, and by its rejuvenating effects on these organs never fails to cure nervous exhaustion and all weaknesses of the generative organs. See advertisement in another column.

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 RENEWER," will find that this apparent difficulty is easily overcome. 50 cents per bottle.

WHAT TO STUDY.—Pope, the poetical philosopher, said "The proper study of mankind is man, and yet, how little is the real science of man studied. If people understood and heeded the laws of health, and if when out of sorts would resort to a common sense like Burdock Blood Bitters, many of the "ills that flesh is heir to" might be effectually remedied. It invigorates and regulates all the secretions to a healthy action.

THE SADDEST OF SAD SIGHTS—the grey hairs of age being brought 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.

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. 1115

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.

1117

"NIL DESPERANDUM."

TRADE MARK Important to Nervous Sufferers.

THE GREAT ENGLISH REMEDY for Nervous Debility and all Nervous Affections, including Spermatorrhea, Seminal Weakness, etc., result of Self-abuse, Indiscretion, &c. is GRAY'S SPECIFIC MEDICINE. This is the only remedy which has ever been known to permanently cure Palpitation and other affections of the Heart, Consumption in its earlier stages, Rushing of blood to the head, Wind in the Stomach, Indigestion, Loss of Memory, Want of Energy, Irritability, Desire for Solitude, Low Spirits, Indisposition to labor on account of weakness, Universal Lassitude, Pain in the back, Dimness of Vision, Premature old age, etc. Full particulars in our pamphlet which we send securely sealed on receipt of a 3 cent stamp. The Specific is now sold by all Druggists at \$1 per package, or 6 for \$5, or will be sent free AFTER TAKING, by mail on receipt of money by addressing THE GREAT ENGLISH MEDICINE CO., 3 Mechanics' Block, Detroit, Mich. 1121



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

D. S. BRIGGS,
9 TORONTO STREET, TORONTO.

WHOLESALE DEALER IN

Clear, Pickings, Common and Hardwood Lumber, Lath, Shingles, &c.

BILL STUFF CUT TO ORDER.

J. K. POST & CO.

LUMBER MERCHANTS

And Shipping Agents.

OSWEGO, N. Y. 1117

J. & F. N. TENNANT

Dealers in all kinds of

Lumber, Lath & Shingles,

Office, Union Loan Building,

Toronto Street, Toronto. 1117

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.

27 P.S.—A SET OF TUB MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER. 1117

A. L. UNDERWOOD

WHOLESALE DEALER IN

White Pine, Basswood & Hardwood,

82 King Street East,

TORONTO, ONT. 1117

'XMAS PRESENTS!

TRY
F. CRUMPTON,
"The Jeweller,"
83 King St. East, Toronto.

**WATCHES,
DIAMONDS,
JEWELRY,
SILVERWARE,
CLOCKS, Etc.,**

Suitable for 'Xmas Presents.

PRICES WILL BE FOUND
10% CHEAPER THAN HOUSES
WHO ADVERTISE
LARGE DISCOUNTS.

TRY HIM!

Goods sent by mail or
express. Perfect satisfaction guaranteed. 112

Market Reports.

MONTREAL.

From Our Own Correspondent.

Dec. 23rd.—In looking back on the lumber trade of Montreal for the past year we find that a very fair amount of business has been done, but with so much competition and high rates of wages, it is doubtful if much money has been made. It is difficult to speculate on the prospects of the lumber trade for the incoming year, but from all appearances prices are likely to rule high in the early part of the year, as stocks are low, and there is little prospect of their being replenished for some time to come.

The mills are working full time, and although the demand is only moderate, brisker times are looked for at the opening of the New Year. We advance our outside quotations for pine cull deals and pine mill culls, and with these exceptions our quotations are unchanged. The weather in this region is much against work in the shanties, snow being much wanted to enable them to get their timber out of the bush. We quote:—

Pine, 1st quality, \$ M..... \$32 00@34 00
Pine, 2nd " " M..... 18 00@24 00
Pine, shipping culls, \$ M..... 12 00@15 00
Pine, cull deals, \$ M..... 8 00@12 00
Pine, mill culls, \$ M..... 5 00@8 00
Spruce, \$ M..... 3 00@10 00
Hemlock, \$ M..... 8 00@10 00
Ash, run of long culls out, \$ M..... 16 00@18 00
Bass, \$ M..... 14 00@16 00
Oak, \$ M..... 35 00@45 00
Birch, \$ M..... 17 00@20 00
Hard Maple, \$ M..... 18 00@25 00
Lath, \$ M..... 1 25@1 35
Shingles, 1st, \$ M..... 3 00@ 0 00
Shingles, 2nd, \$ M..... 2 00@ 0 00

CORNWOOD.—The market is still dull and the soft weather we are having proves detrimental to business. Prices are steady and unchanged, and there is very little prospect of any advance, rather otherwise, as stocks are pretty heavy, and the Q. A. & O. Railway is bringing in a large quantity of wood, but the quality is inferior to that received in summer by boats. We continue to quote prices at the railway depot, ex cartage:—

Table with 2 columns: Lumber type and price. Includes Long Maple, Short, Long Birch, Short, Long Beech, Short, Long Tamarack, Short.

TORONTO.

From Our Own Correspondent.

Dec. 24th.—The mild weather during the present month has enabled builders to prosecute their work with as much vigor as at any time during the present season, and lumber dealers have therefore had a good time generally, and few complaints are heard from any of the dealers, except on the score of deficiency of bill stuff, which is being felt more each day that passes over, and will be more severely felt long ere spring reaches us, and my firm conviction is that bill stuff must advance at least one dollar per M. above present figures. For many years past bill lumber has ruled so low as to leave but little margin to the manufacturer, and the result has been that mill men has turned their attention more to the cutting of bill lumber, leaving the manufacture of dimension stuff to those whose pine is specially adapted to that purpose, and the consequence is that we now have a famine in that class of lumber, and builders must pay more for such material in the future if they expect to induce mill men to turn their attention to the cutting of bill lumber. The demand for lath is unabated and retailers readily obtain \$1.75 to \$1.80 per M., carload lots command ready sale at \$1.50 to \$1.60, according to width and quality, but should severe frost set in, prices may recede somewhat. Considerable lumber of the better grades has been shipped by rail to Buffalo and other points during the last two weeks, a good class of uppers realizing \$32 to \$33 per M. on car here, but as the holiday season is now at hand we may look for a quiet time for two weeks to come, and should the weather continue mild we may then look for considerable activity in lumber matters, and should the remainder of the winter prove favorable for logging purposes, a large trade will be done next summer both over our docks and on the local market.

All wood working machinery in the different

factories here are being worked to their fullest capacity, large quantities of doors and sashes being manufactured for different points in Manitoba, and there seems no diminution in the number of houses in course of erection, and yet ready sale is found for them as fast as finished, so that viewing the prospects for the lumber trade next season, there is little room for doubt as to a highly successful year.

Prices at the different yards remain much the same as when I last wrote to you, but the figures asked by wholesale men would seem to warrant a considerable advance on all grades of lumber.

QUOTATIONS. Mill cull boards and scantling, Shipping cull boards, promiscuous widths, Scantling and joist, up to 10 ft., 18 ft., 22 ft., 24 ft., 26 ft., 28 ft., 30 ft., 32 ft., 34 ft., 36 ft., 38 ft., 40 to 44 ft., Cutting up planks to dry boards, Sound dressing stocks, Picks Am Inspection, Three uppers, Am. Inspection, 14-inch flooring, dressed, 1 1/2 inch rough, 1 1/2 inch dressed, 1 1/2 inch undressed, 1 1/2 inch dressed, 1 1/2 inch undressed, Beaded Sheeting, dressed, Clapboarding, dressed, XXX sawn shingles, \$ M, XX sawn shingles, Sawn Lath.

LONDON, ONT.

From Our Own Correspondent.

Dec. 22.—It was my intention to furnish you in this letter with a data of the consumption of lumber in this city for the past year, but I find it will be better to wait a week or two, when the merchants will be through with their stock-taking, and I shall then be enabled to give a more accurate statement. So that you may look out for it in my next.

The weather in this section is almost as open as spring, and the products of last year's lumbering in all our particular bases of supply are getting pretty well run out, consequently a strong feeling prevails here that unless we have at least a short season of a good old-fashioned winter, lumber in the spring will be very scarce and as a result much higher.

One man up on the London, Huron & Bruce Road, who got out over 300,000 feet last winter, has cleared out every stick, and another who got out 2,000,000 feet has very little left, and is holding. This, however, is the general cry, all stocks are getting very low, and though I cannot record higher figures just now, the tendency is very much in that direction.

To-night the tenders for the new block of wholesale stores are to be handed in, and I shall know in a day or two in what direction the lumber contract has been let.

At this date I cannot quote higher figures, so that my last will be reliable quotations for this letter. These prices, however, are understood to be bottom cash figures.

QUOTATIONS. Mill cull boards and scantling, Shipping cull boards, promiscuous widths, Common boards, promiscuous widths, Scantling and joist, up to 10 ft., 18 ft., 20 ft., 22 ft., 24 ft., Common stocks, Common 2 in. plank, Cutting up plank and boards, Sound dressing stocks, Clear and picks, Three uppers, Am. Inspection, 1 1/2 inch dressed and matched flooring, XXX sawn shingles, \$ M, Lath per 1000 feet.

OTTAWA.

From our own Correspondent.

Dec. 22nd.—The weather of late has been exceedingly open in the Ottawa Valley, with no snow on the ground in this section at the present time, and lumbermen fear that the lack of the "beautiful" will have a tendency to curtail in a measure the quantity of logs and square timber to be got out this winter; but Venuor has promised "snow" before the season

is over, and it must come sooner or later, before next summer anyway, and this will make lumbermen happier.

The lumber business is rather flat here just now, as stocks here are low. There is not near so much lumber being held over by the mill owners of this locality as there was a year ago. Bronsons & Weston have only about half as much on hand as at this time last year, Eddy and Gilmour & Co. also have reduced stocks, Pevley & Pattoo and J. R. Booth have nearly the same amount as a year ago, as their season's cut was not reduced to a very great extent. There are some shipments being made by rail to the American markets, but the trade is not very active, as lumbermen are now between the two seasons, and business is quiet. The stocks on hand have about all been disposed of, and are shipped as desired. Lumbermen decline as yet to estimate their cut of next season, as it is too early, and they therefore decline to enter into any contracts with dealers.

The prospect of another season's good trade in lumber is looked forward to by all parties interested, and preparations are being made for it. Lumbermen have nearly all sent a greater number of men into the shanties than they did a year ago, but if the snow fall is light, there may be low water again next summer, and consequent trouble and loss experienced. Barge-owners are anticipating a good season, and the barge-builders at the Hull shipyard are busy at work building some additional barges.

The electric light promises to be the saw mill light of the future. McLachlin Bros., of Arnprior, intend to have their splendid new mill lighted up by electricity, and have given an order to the Maxam Co. for the necessary lights and machinery. Mr. Peter McLaren, of Carleton Place, has also ordered five lights for his mill and grounds at Carleton Place.

Timber limits have increased in value of late. Two or three years ago there was no sale for them, and some of these who had them on their hands felt the weight of them to carry through to the end of the hard times. To-day there was sold at the Grand Union House, in this city, by auction, a 100 miles square limit on the Black River, owned by Mr. James Findlay, for \$60,000. Mr. Miller, of Pembroke, was the purchaser. There were a good many lumbermen present at the sale, considerable interest being manifested.

During the past season 415,435 logs came down the Gatineau River, together with 16,089 pieces of square and flatted timber, and 794 spars, being quite an increase over the quantities for the previous year, and greater than in any preceding season.

The export of timber from Quebec was not so great during the past season as in the previous one, while over four and a half million feet of square timber is held over, with a million and a half feet of white waney, and two million feet of red pine. The timber product of the Ottawa Valley this year was nearly double that of 1880, and more still will be taken out the coming season. There is quite a quantity—some half a dozen rafts—laid up on the Upper Ottawa.

ST. JOHN, N. B.

From Our Own Correspondent.

Dec. 21.—It is no easy task to make up a lumber report with the very scanty materials at command at this season of the year. True, our harbor is open and we have the same facilities for shipping as in July, but with the sources of supply closed, and the stock on hand reduced to a minimum, there is little left to be done.

As noticed in our last report, all the available stock having been bought up, there are no transactions in deals to report at this writing. The prospects for the future appear to be that the price of deals the coming year will rule higher than for some time past—the latest transactions, of course, excepted. It seems to be agreed on all hands that the log supply will be much below the average; this, together with the fact that old stocks are pretty well cleared out, and the improving prospects of the English market, would seem to indicate that the expectations of higher prices next year are well founded.

FREIGHTS.

We have nothing to add to our remarks under this head in our last.

SHIPMENTS.

The shipments of deals and other sawn lumber are as follows:—

Table with 2 columns: Destination and quantity. Includes For Europe (3,630,000 Sub. feet), United States (1,598,000), West Indies (233,000). Also number of sugar box shoeks shipped for Cuba from Sept. 1st to date is 34,856.

SHIPPING.

The following is a list of the vessels in port, with their tonnage and destination:—

Table with 2 columns: Vessel name and destination. Includes Atlantic, 412, Liverpool, Fleetwood Barrow, Emily Lowther, 762, Liverpool, Rialto, 1,530, Liverpool, Arabella, 1,100, London, Henry, 1,096, Liverpool, Eta Stewart, 787, Cambusdon, 1,300, Bona (Afr.) orders, Carrick Castle, 878, Adelaide, orders, Magdala, 315, Bristol Channel, Linden, 913, Liverpool or Bristol Channel, Souvenir, 828, Liverpool, Gettysburg, 1,018, Adelaide, for orders, Templar, 778, discharging, Antwerp, 573, Penarth Roads, Fryburn, 448, discharging, at 1st, 650.

ALBANY.

Dec. 22.—Quotations at the yards are as follows:—

Table with 2 columns: Lumber type and price. Includes Pine, clear, \$ M, Pine, fourths, Pine, selects, Pine, good box, Pine, 10-in. plank, each, Pine, 10-in. plank, culls, each, Pine boards, 10-in., Pine, 10-in. boards, culls, Pine, 10-in. boards, 16 ft., \$ M, Pine, 12-in. boards, 16 ft., Pine, 13-in. boards, 13 ft., Pine, 1 1/2 in. siding, select, Pine, 1 1/2 in. siding, common, Pine, 1 1/2 in. siding, select, Pine, 1 1/2 in. siding, common, Spruce, boards, each, Spruce, plank, 1 1/2 in., each, Spruce, plank, 2 in., each, Spruce, wall strips, each, Hemlock, boards, each, Hemlock, joist, 4x6, each, Hemlock, joist, 2x4, each, Hemlock, wall strips, 2x4 each, Ash, good, \$ M, Ash, second quality, \$ M, Cherry, good, \$ M, Cherry, common, \$ M, Oak, good, \$ M, Oak, second quality, \$ M, Hardwood, \$ M, Hickory, \$ M, Maple, Canada, \$ M, Maple, American, per M., Chestnut, \$ M, Shingles, shaved, pine, \$ M, 2nd quality, \$ M, extra, sawed, pine, clear, cedar, mixed, cedar, XXX, hemlock, Lath, hemlock, \$ M, Lath, spruce, Lath, pine.

CHICAGO.

Dec. 21.—The arrivals by lake since our last report have consisted of but a few straggling vessels. The aggregate receipts by both lake and rail reached during the past five days but a little over 5,000,000 feet of lumber, and 2,690,000 shingles, bringing the total receipts of the season to 1,846,819,000 feet of lumber, and 783,401,000 shingles. This is an excess of 33,234,000 feet for lumber and 149,344,000 shingles above the receipts of 1880, and while ten days of the current year still remain, and will no doubt increase the excess to some extent, yet they are practically near enough to determining the net results of the season's work in receiving lumber at this port. This extraordinary increase, however, is wholly offset by the equally astonishing figures of sale and shipment, which having reached 1,871,133,000 feet of lumber and 868,852,000 shingles, reveal an increase in the former of 357,781,000 feet and in the latter of 131,388,000. The following are the

CARGO QUOTATIONS.

Table with 2 columns: Lumber type and price. Includes Joist and scantling, green, ordinary lengths, Joist and scantling, green, 20 feet and over, Mill run, choice green, Mill run, medium, green, Mill run, common, Shingles, standard, Shingles, extra A, Lath.

BOSTON.

CANADA PINE.

Table with 2 columns: Lumber type and price. Includes Selects, Dressed, Shelving, Dressed, 1st, Ends, Dressed Shippers, Dressed Box, Sheathing, 1st quality, 2nd.

OSWEGO, N.Y.

Dec. 24th.—The demand for lumber is much larger than was ever before known at this season of the year. Assortments are already very much broken, the stocks of upper grades are fast disappearing, and dealers have difficulty in filling orders in anything better than common lots of mill run. The following are the quotations:—

Three uppers.....	\$42 00@45 00
Pickings.....	32 00@35 00
Fine, common.....	30 00@32 00
Common.....	14 00@18 00
Culls.....	13 00@15 00
Mill run lots.....	17 00@22 00
Sidings, selected, 1 inch.....	34 00@35 00
1 1/2 inch.....	37 00@38 00
Mill run, 1x10, 13' to 18 feet.....	17 00@21 00
selected.....	23 00@25 00
shippers.....	15 00@16 00
Stripe, 1 and 1 1/2 inch mill run.....	15 00@22 00
Culls, selected.....	23 00@25 00
Culls.....	13 00@15 00
1x0 selected for clapboards.....	25 00@40 00
Shingles, XXX, 18 inch, pine.....	3 85@ 3 90
XX.....	3 80@ 3 85
XXX, 18 inch, cedar.....	3 00@ 3 30
XX.....	2 25@ 2 50
Lath.....	1 40@ 1 60

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers.....	\$40 00@45 00
Common.....	17 50@20 00
Culls.....	11 50@12 50

BUFFALO.

We quote cargo lots:—

Uppers.....	\$40 00@45 00
Common.....	17 50@20 00
Culls.....	11 50@12 50

LIVERPOOL.

Duncan, Ewing & Co.'s circular, dated Liverpool, 3rd December, 1881, quotes the arrivals since 1st February to date in the last three years from Quebec thus:—In 1881, 103 vessels, 76,968 tons; in 1880, 130 vessels, 119,587 tons; in 1879, 77 vessels, 64,966 tons. Their comparative table of supplies since 1st February to date, in the last three years, shows the import of Quebec pine timber to be:—In 1881, 30,159 logs; in 1880, 45,544 logs; in 1879, 22,674; Quebec deals, in 1881, 1,227,247 pieces; in 1880, 1,753,583 pieces; in 1879, 991,956 pieces. They say there has been a more satisfactory business done during the past month than has been experienced since the season commenced, and the stocks held over (with the exception of pitch pine) are in the aggregate much more moderate than they were at this period last year, whilst the consumption of square timber for the month is almost double that of November, 1880.

CANADIAN FREIGHTS.

The London *Timber Trades Journal* has another long article in favor of "Canada, its people, and its produce." It concludes as follows:—As a corn-producing country the Dominion of Canada may be considered yet in its infancy, but in respect of its timber production it is already prepared to supply the outside world to any extent that may be required, and its export is yearly increasing. The importation into this country from British North America was in 1878 1,224,051 loads, in 1879 (a bad year) the quantity fell to 1,101,020 loads, but in 1880 it rose to 1,507,662 loads. Russia and Scandinavia, the other two sources of our chief supplies, during the same time sent us as follows:—Russia, 1878, 1,237,026 loads; 1879, 898,569 loads; and 1880, 1,397,267 loads; Sweden and Norway in 1878, 1,921,573 loads; 1879, 1,843,283 loads; and in 1880, when a dearth of timber was to take place in these regions, 2,267,082 loads. The quantity sent to this country by the three shipping countries just enumerated and summarized for the three years was:—

From Russia.....	2,532,730 loads.
R. America.....	3,832,733 "
Scandinavia.....	6,021,938 "

By which figures it will be seen that our North American colonies, though more remote, send us 50 per cent. more timber than Russia, including Finland, and nearly two-thirds of the quantity we get from Norway and Sweden, many of whose chief shipping ports are within four or five days' sail of our shores. Were there any mode of equalizing the expense of transmission, the colonial trade in timber with us would be much greater, but the high rate of freight in proportion to value embarrasses their trade with Great Britain. On corn 5s. on 40s.

is about the freight from Canada to this country, but on timber about 20s. on 40s.; for instance, 65s. per standard in paid on spruce deals, many of which do not realize £6 10s. at market, clear of landing and other charges.

From these figures it will be seen that on low class wood goods the freight from the Gulf of St. Lawrence is 50 or 60 per cent. of the selling value on arrival in this country, while from Norway it is not over 25 per cent. On Quebec 1st pine deals, which fetch £20 and upwards to sometimes £25, the freight is not so prohibitory, as these pay no more for carriage than the roughest scantlings. Even then the freight will be 18 to 20 per cent. on the selling value. But on boat goods from Norway, such as prepared flooring, the average freight will only be 15 or 16 per cent. When we see the disadvantages under which the timber trade of Canada labors in its European export, we can easily understand how great would be its expansion in the United Kingdom under a more equalized system.

MUSKOKA AND PARRY SOUND.

From Our Own Correspondent.

BRACEBRIDGE, Dec. 24th.—The following is a statement of this season's cut of saw logs and board timber, as near as it can be got at now, for the districts of Muskoka and Parry Sound: Muskoka Mill and Lumber Co. 20 millions
British Canadian L. and T. Co. 22
R. Power..... 15
Brentwood Lumber Co..... 5
Georgian Bay Lumber Co..... 42
W. Christie..... 3
Hull..... 10
O. Taylor..... 4
Dominion Bank..... 4
Wm. Tait..... 4
C. Meaker..... 4
Thompson & Baker..... 3
Woodstock Lumber Co..... 6
J. Cockburn..... 6
Parry Sound Lumber Co..... 15
Ontario Bank..... 13
Charles Bick..... 5
J. M. Dollar..... 3
Crone..... 3
Sundry Others..... 5

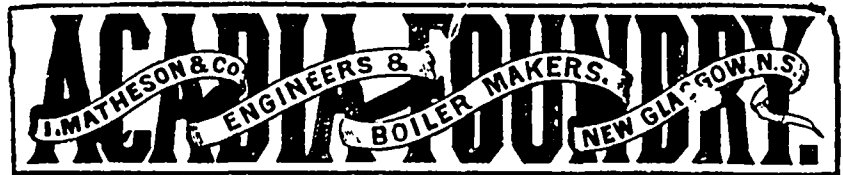
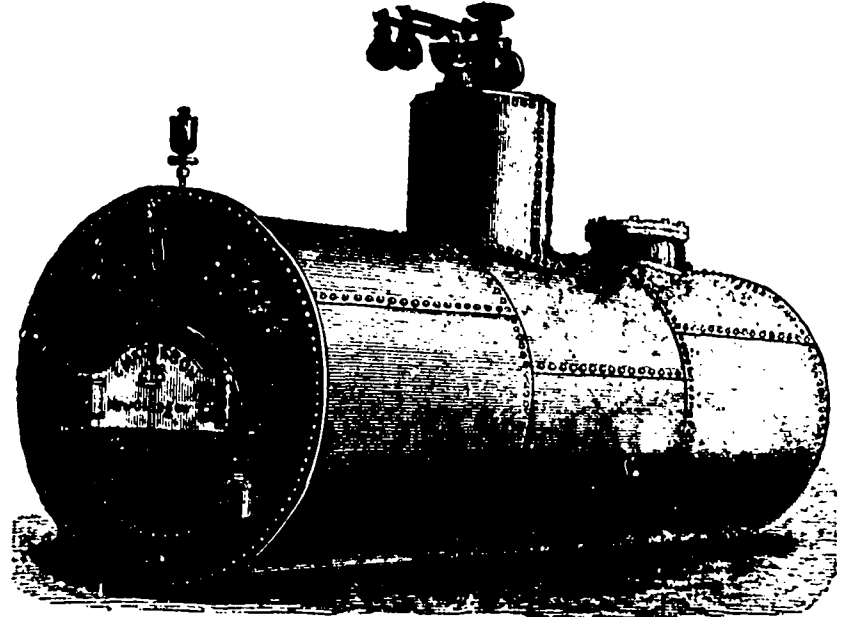
Total..... 195 millions.
R. Dollar, for American markets, two million feet of long, round timber, also board timber as follows, in cubic feet:—
S. S. Cook, including what was stuck last year. 455,000
McArthur Bros..... 100,000
Strickland..... 100,000
J. M. Dollar..... 150,000
John Durkin..... 50,000
Burton Bros..... 200,000

And on the north shore—
McArthur Bros..... 100,000
Robert Dollar..... 300,000
O. F. Wright..... 100,000
M. McDugall..... 150,000
Total..... 1,735,000
At present we have no snow, consequently no hauling, and the prospects are poor for any soon, so the above figures may not be realized, but the cutting and skidding is nearly all done. Men are very plentiful now, and wages have dropped about four dollars per month.

THE ELECTRIC LIGHT, superseding as it does all other modes of illumination, and rivalled only by the glorious sunshine, will not be hailed with greater joy by mankind, than Burdock Blood Bitters, which is as far superior to all other blood purifiers and tonics as the electric light is superior to the old-fashioned tallow dip. Burdock Blood Bitters cures scrofula, and all foul humors and impurities of the blood.

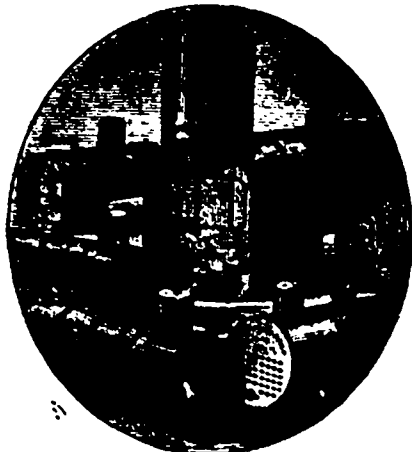
LEATHER BELTING.

Chipman, Renaud & Co.
MANUFACTURERS OF
**LEATHER BELTING,
FIRE ENGINE HOSE
LACE LEATHER, &c.**
124 & 126 Queen St.
MONTREAL



ADAM MCKAY
MANUFACTURER OF
Steam Engines and Boilers,
AND ALL KINDS OF MACHINERY.
Locomotives, Stationery and Marine Engines and Boilers, Grinders, 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.
144 Upper Water Street, HALIFAX, N.S.

John McGregor & Sons,
MANUFACTURERS OF ALL KINDS OF
**STATIONARY,
MARINE, and
LOCOMOTIVE BOILERS,
And SHEET IRON WORK.**



Portable Boilers for Thrashing Machines, Shingle Mills, etc., furnished on short notice. All Boilers tested by cold water pressure to 150 lbs. to the square inch before leaving the shop.

SECOND-HAND MACHINERY
BOUGHT, SOLD, OR TAKEN IN EXCHANGE FOR NEW WORK.
Repairs Promptly Attended to.
188 Atwater Street, Detroit, Mich.
BRANCH SHOP,
Cor. Glengarry Ave. & Stuart St.
WINDSOR, ONTARIO

UNION FOUNDRY
Union Street, --- Carleton,
Warerooms, Water Street.
ST. JOHN, N. B.

Allan Brothers
(Late of Harris & Allen)
MANUFACTURERS OF ALL KINDS OF
Steam Engines
AND
MILL MACHINERY.

Ships Windlasses, iron Capstans
and all kinds of CASTINGS of all kinds.
Ships Cabbooses & Cabin Stoves
COOKING AND HEATING
STOVES,
Shop, Office and Parlor Stoves, and Franklins.
Agricultural Implements.
BRASS CASTINGS.
Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use.

ROBERT W. LOWE,
AUCTIONEER AND COMMISSION MERCHANT

61 SANDS BUILDING, PRINCE WILLIAM STREET.

Cash advanced on Goods put in for sale. **No Storage charged.** All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hazellurst & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c., &c.

1L17

SAINT JOHN, NEW BRUNSWICK.

ROBIN & SADLER

594, 596, 598, St. Joseph St.

MONTREAL

Manufacturers

of

Fire-Engine

HOSE,

Lace Leather,

Mill Supplies, &c.

1L13

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 24 x 20.

DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 24 x 20. 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 them highly to any one who is in the lumber business.

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

EVERY STOVE GUARANTEED

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

1L7

ADAM HALL, Peterborough.

D. McLACHLAN & SONS,

Manufacturers of all Descriptions of

STEAM BOILERS.

SHIPS' WATER-TANKS. Repairing Punctually Attended to.

NORTH SLIP, ST. JOHN, NEW BRUNSWICK.

1L16



ESTABLISHED 1874.

ESTABLISHED 1874.

Norman's Electro Curative Appliances

RELIEVE AND CURE

Spinal Complaints, General and **NERVOUS DEBILITY**, Rheumatism, Gout, Nervousness, Liver, Kidney, Lung, Throat and Chest Complaints, Neuralgia, Bronchitis, Incipient Paralysis, Asthma, Sciatica, Sprains, Consumption, Sleeplessness, Colds, Indigestion.

Ask for Norman's Electric Belts and you will be safe against imposition, for they will do their work well and are cheap at any price.

A. NORMAN, Esq.,

WATERVILLE, N. B.

Dear Sir,—Please send me a waist belt. Enclosed find price. Head band I got for my wife has almost cured her of neuralgia.

Yours truly,

C. L. TILLEY.

Numerous of such testimonials can be seen at my office, proving that they are doing a good work and worthy the attention of all sufferers. Circulars free. No charge for consultation.

A. NORMAN, 4, Queen Street East, Toronto.

N.B.—Trusses for Rupture, best in America, and Electric Batteries always on hand at reasonable prices.

1L12

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.

1L19

Foundry and Machine Shop on City Road,
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.....\$8 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.

1L5

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

GILBERT HART, Detroit,
President.

JAMES T. BARNARD, Hamilton,
Secretary-Treasurer.

SAMUEL BRIGGS, Hamilton,
Superintendent.

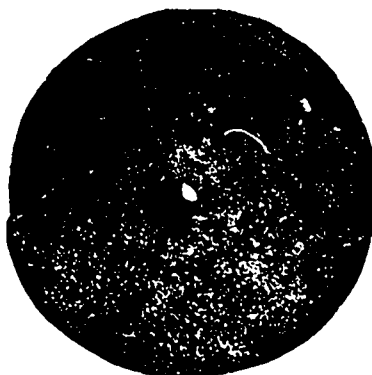
MANUFACTURERS OF THE CELEBRATED

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. CATHERINES.

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.

Drake Brothers' Box Mill,

Provost Street Extension, New Glasgow, Pictou County, N. S.

SPRUCE, PINE & HEMLOCK SHINGLES

F. H. DRAKE.

1117

N. H. DRAKE.

C. H. FLEWELLING Engraver on Wood

And ELECTROTYPED.

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

NEWEST DESIGNS AND BEST WORK.

MACHINE CUTS A SPECIALTY. 1119

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. 1119

504 St. Paul Street, MONTREAL.



J. F. LAWTON Alexandria Saw Works

SAINT JOHN, N.B.

Saws of all kinds manufactured from the BEST CAST STEEL that can be procured in any Market.

EVERY SAW WARRANTED.

SAWS REPAIRED in the best manner and on Short Notice.

Send Address for Price List, Terms, &c.

1117

J. F. LAWTON.

STEAM SAW MILL OWNERS

Have your Boilers thoroughly Inspected and Insured against Explosion by

The Canadian Steam Users' Insurance Association

HEAD OFFICE, 9 VICTORIA STREET, TORONTO.

SIR ALEX. CAMPBELL, President.

HON. JNO. McMURRICH, Vice-Pres.

GEORGE C. ROBB, Chief Engineer.

A. F. JONES, Secretary-Treasurer. 1113

WILLIAM CAMPBELL

(Late CAMPBELL & FOWLER.)

MANUFACTURER OF

Edge Tools, Axles, Springs,

&C., OF EVERY DESCRIPTION. 1119

Robertson Place, Smythe Street - - ST. JOHN, N.B.

LUMBERMEN'S STATIONERY.

We will supply anything in the line of BLANKS or STATIONERY for Lumber Shanties and Offices at City prices.

All Printing done in the Highest Style of the Art, and at Lowest Living Prices.

Book-Binding of every Description got up in a very Neat and Superior manner.

Account Books Ruled and Bound to any desired Pattern.

For Schedule of Prices address, describing the kind and quality of work desired,

TOKER & CO.,

"THE CANADA LUMBERMAN,"

PETERBOROUGH, ONTARIO.

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.

1112

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 Boiling 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.

1121

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

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

1120

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

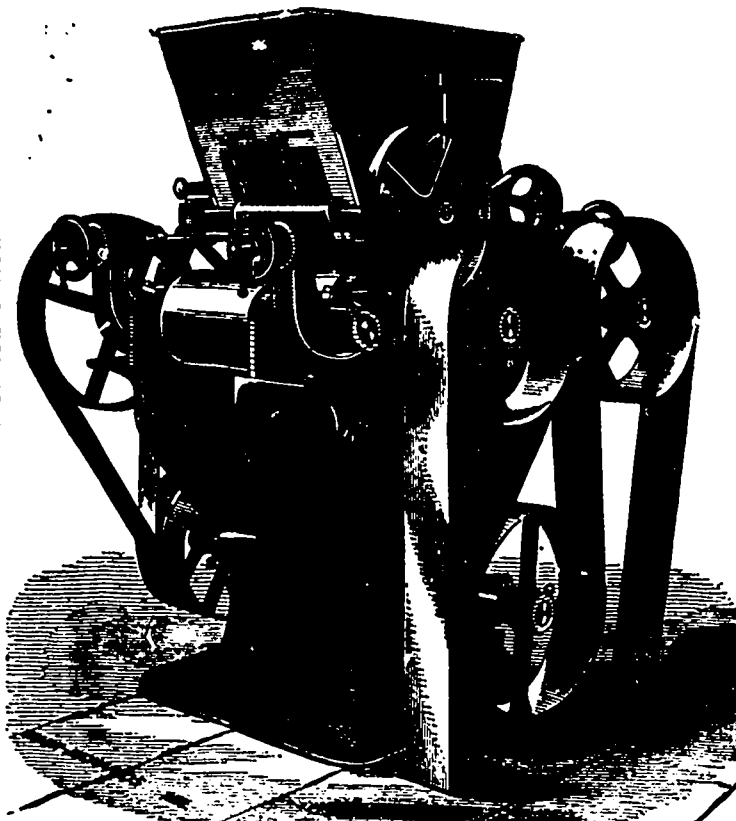
Flour Making by the New Process

GRAY'S PATENT NOISELESS ROLLER MILL

A Model of Perfection!

Every Mill a Success!

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



CORRIGATIONS of all Descriptions. Smooth Iron or Porcelain ROLLS.

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.

1119

HEADQUARTERS FOR INSERTED TOOTH SAWS!

THE BROOKE BITT SAW,

With interchangeable Trenton Teeth.

THE HOE BIT SAW.

FLANGE TOOTH SAWS.

Write McLaughlin Bros., Amptor, as to how they like 2-66 inch Brooke Bitt, and 2-66 inch Ho. Saws—running 800 revolutions per minute on 10 to 18 inch feet. Also, E. C. Parson's, Amptor, running 600 revolutions per minute on 6 inch feet—600 revolutions per minute; cut 500,000 feet with two sets of Bits, costing less than \$10.00.

ORDER BY THIS GAUGE.

EWART'S PATENT DRIVE CHAIN

FOR SAWDUST CARRIERS, LIVE ROLLS, TRIMMERS and REFUSE CARRIERS.

BROWN'S PATENT SPALT MACHINE

Cuts three perfect Shingles out of inch board. Cuts Shingles out of slabs and all manner of refuse. Will soon pay for itself around any large Mill.

AUTOMATIC GANG TRIMMERS, SIX SAW EDGERS, and the most improved Saw Mill Machinery. PORTABLE SAW MILLS OUR SPECIALTY.

Address, WATEROUS ENGINE WORKS CO., Brantford, Canada.

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 fickle, 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 $\frac{1}{2}$	} 7 in. hole.	10x $\frac{1}{2}$	} 7 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 21x1. 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 83 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. 118

The Tanite Co. Stroudsburg, Monroe Co. Pennsylvania

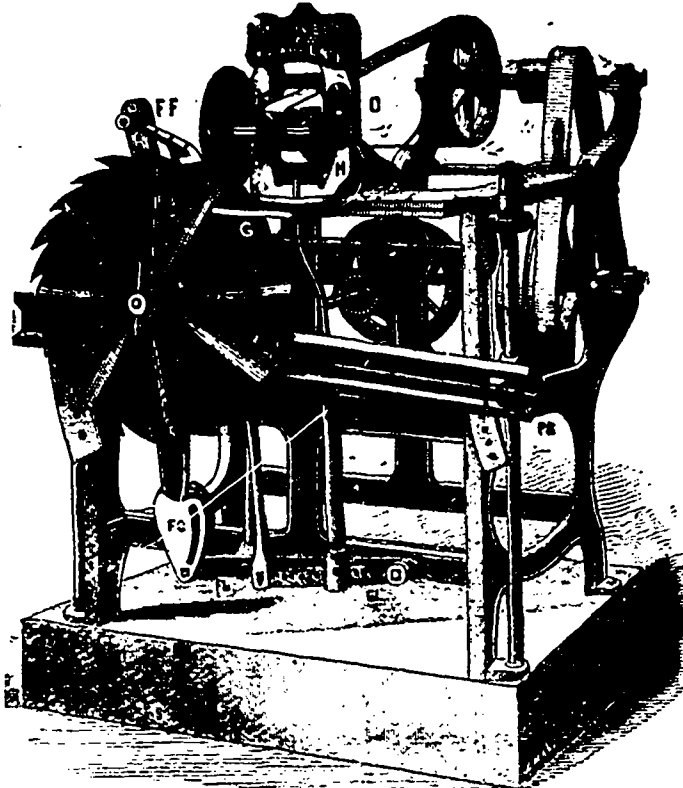
CANADIAN TRADE SPECIALLY SOLICITED.

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!**

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, Woolen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying, that our Style, Workmanship and Finish on this Engine, is 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.

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 18 boards 13 ft. long in one minute. It can do much smoother and better work than the piston feed. It is easily governed and revolves 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.

WILLIAM HAMILTON, PETERBOROUGH, ONT.