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

SUBSCRIPTION
\$2.00 PER ANNUM

VOL. 4.

PETERBOROUGH, ONT., FEBRUARY 1, 1884.

NO. 3.

MORE lumber will be cut in Maine this winter than has been expected, owing to efforts to secure as much as possible of the large amount of timber that was blown down by recent heavy storms.

At Duluth, 400 buildings were erected during the past year, at a cost of \$1,527,121. The lumber output increased to the amount of 31,325,322 feet, and grain receipts increased nearly one half.

ONE of the largest cargoes of Southern pine ever brought into the port of New York came to Robinson & Booth, per schooner Nathan Esterbrook, Jr., from Pensacola, Fla., consisting of 580,000 feet.

A PARTY of loggers have gone into the woods on the head waters of the Yakama, W. T., under the direction of James Robinson, for the purpose of getting out ties and other timber for the Northern Pacific railroad.

THE Connecticut River Lumber Company, of Hartford, is intending to put into Connecticut river this season 20,000,000 feet of spruce logs: Geo. Van Dyke, of Melndoes Falls, Vt., will put in about 12,000,000 feet, and Capt. A. M. Beattie, of Lancaster, N. H., 5,000,000. A large number of smaller operators will swell the grand total to 50,000,000 feet to be cut from the forests of Northern Vermont and New Hampshire, to be run down the Connecticut.

THE *Northwestern Lumberman* says:—Mr. S. H. Webster, for many years an extensive lumber manufacturer in the Saginaw valley, who a few years ago effected a settlement with his creditors at 50 cents on the dollar, came to the front on New Year's day and presented every one of them with a check for the other half of the dollar. Always a genial generous gentleman as well as an enterprising business man, this last act of Sam Webster, as he is familiarly known, ought to make his name immortal. In this day and age such a deed is as rare as it is gratifying.

THE *Timber Trades Journal* says:—According to the United States papers pitch, or, as they term it yellow, pine, is to be the wood of the future, and men have been buying up timber lands expecting to realize an advance within a reasonable period; but we expect the time will be a long while coming when the demand for pitch pine supersedes that for wood from the Baltic ports. It is idle to talk about the exhaustion of the forests of northern parts of America as clearing the way for a more active consumption in timber from the south, for we have still got to deal with all the Russian forests besides those of Finland, Gulf of Bothnia, and Germany, besides Poland.

FOREST DESTRUCTION.

The following is taken from Mr. Sinclair Tousey's travels in Southern Europe:—

Much of France, nearly all of Spain, and large portions of Italy are entirely destitute of forests. The tourist can travel day after day in these countries without seeing standing timber enough to make a decent sized barn. The people in these sections are bothered to get the very little fuel they need, depending upon the trimmings of shade and fruit trees and vines for what they get; while the damage done to the country by heavy rains is beyond estimate, especially in the hilly regions, where the rain, falling on the ground, finding no trees with their wide-spreading roots to check its passage off the place, rushes with tremendous force into the valleys carrying all before it.

So destructive are these torrents, and so suddenly do they come down the river bed, that in many places heavy stone walls are erected to keep the sweeping floods within bounds. Within a few hours after one of these torrents have swept down a valley, the bed of the river will be as dry as if water had never wet it. Another evil is the scarcity of small running streams for the use of cattle and for manufacturing purposes.

The unchecked rain, finding nothing in its way, hastily passes from the surface and gets into the sea; whereas, if the land was sprinkled with forests, much of it would be absorbed by the ground, and by gradual percolation find its way to the streams and keep them alive to aid the work of man and give drink to animals.

I earnestly implore the owners of forests in our favored land to be careful of the trees and waste none. We can leave our successors no better legacy.

PROTECTING THE ADIRONDACKS.

The movement in favor of the protection of the Adirondack forests in the State of New York seems to be progressing rigorously. Mr. J. C. Parsons writes to the *Brooklyn Eagle* entering very fully into the advantages of perpetuating these forests as regards climate, the insurance of a water supply for the Erie canal, and the value of the revenue to be derived from the timber, &c. As to the question of purchasing lands in addition to those held by the State he says:—

"But why should the lands not be made in time to repay the cost of purchase. Setting aside other considerations, in respect to the general welfare of the State? If immense fortunes have been made in the lumber business why cannot the State, by establishing the same system in connection with the forests as in Europe and Canada, derive an annual revenue from the judicious thinning out of the timber."

We fully agree with the writer as to the propriety and the economy of the course he suggests, and willingly accept his testimony in favor

of such a system. We must, however, express our regret that the situation is not so favorable in Canada as he imagines. In Europe the Government forests are perpetual and yield a constant annual revenue without impairing the national property. In Canada though there are annual receipts from the Crown forests they are not in the nature of a yearly income from capital, but are obtained by the suicidal policy of "killing the goose that lays the golden eggs." Our forests are being destroyed, not cropped as in the European system.

SUPPLIES FROM GREAT BRITAIN.

The *Timber Trades Journal* says:—It must be kept in mind that the vast consumption of timber going on in America does not effect the European export market very much, because there is sufficient competition among the various timber shipping countries on this side of the Atlantic, to keep prices moderately low, even if the supply from North America to the United Kingdom were cut off altogether; and it is significant that among the causes periodically assigned for inducing us to believe in a shorter supply the succeeding season, no attempt is now made to persuade us that the Scandinavian forests are graduating towards early extinction, when no further use can be made of natural causes—the absence of frost and snow, the want of water in the rivers, or too much of it &c.—then societies, clubs, and conventions are either formed or forming, we are told, to prevent so much wood from being cut down, and to limit the supply to the requirements of the trade, with a fair profit to everybody. But somehow or other it always happens that, however large has been the export from the producing countries, there is a good deal more left in the hands of the shippers than it is agreeable for them to hold over when the season closes.

The letters of our Swedish and Norwegian correspondents, which we published last week, are both pretty much to the same effect. The one alluding to the mild season that had prevailed in Sweden up to that date (15th Dec.) adds: "There will consequently be no production of logs to speak of in the principal export districts till the second week in January." This may be remedied; but he says that it is intended to curtail the supply "unless a rise of price takes place before the end of February;" but in any case he thinks "it would be suicidal to make as many logs as of late years." Our Norway authority also is of the same opinion, stating "that it is pretty certain the number of logs will not be large, the cutting having begun so late."

But what we have to look at is the state of the supply on this side, and the general desire which is always apparent in the timber countries to get their produce turned into British money with the least possible delay, in obedience to a natural law which governs all trade—just

as we see in our own ironworks, where the manufacturers are quite as anxious to do business now that the price is about £6 per ton as they were when the same description was £10 and £12 per ton. And as there is something more than an average winter stock of wood goods in hand on our side, it is not likely that larger prices will find favor here for some time to come with those who are not likely to require their customary supplies very hastily from abroad.

THE CANADIAN POPLAR (POPULUS CANADENSIS.)

I have long thought that this tree deserved to be more extensively planted than it is, especially in situations for which it is more especially adapted, viz., moist water margins and similar places. Even when planted in elevated or dry situations it over tops everything else. I have in my "mind's eye" a belt of mixed trees that were planted about forty years ago, and the Canadian Poplar, as it is locally called, is nearly double the height of the other trees, of which a goodly proportion are spruce firs; the poplar far outstrips them all, both in height and cubic contents of timber. It is, however, as I have said, in damp ground that its rapidity of growth and inclination to produce timber is more especially remarkable. The timber, likewise, is not without value; but I do not fully endorse an old distich which speaks of it as outlasting that of the oak under certain circumstances. There are, however, purposes for which it is very suitable, being almost incombustible. In Kent there has been of late years a great demand for it for the joists of hop-kilns, which, being exposed to the action of a hot charcoal or coke fire burning openly a few feet below, are necessarily much exposed to the risk of being burned down. Poplar joists are, therefore, much sought after. Boards of poplar, as well as those of willow, are also useful for insides of stone wagons or carts, where a harder wood is not so good, being liable to splinter during rough usage. There are other purposes to which poplar wood may be turned to good account, but it is unnecessary to mention them here; suffice it to say that the rapidity of its growth is a sufficient reason for recommending it to be planted extensively by all who wish for immediate effect.—A. R. G., in "*Woods and Forests.*"

A Large Contract.

Mr. Oscar A. Droege has just entered into a contract with the Mexican Government to plant 2,000,000 trees in the Valley of Mexico within four years. The contractor pledges himself to plant 80,000 ash, 33,000 willows, 120,000 poplars, 60,000 eucalyptus trees, 60,000 acacias, and 120,000 of miscellaneous varieties. The trees must be in plantations of from 20,000 to 100,000 each.

AUSTRALIA.

We take the following from the monthly circular of Messrs. Lord & Hughes, timber brokers, of Melbourne, dated the 21st of Nov. 1893:

Since our last report, on 21st ultimo, the offerings at auction of most descriptions of timber have been large, and we have to report a general decline in price, except for American lumber, which has shown an advance.

The cargo of spruce ex Hooghly, from Quebec, via Adelaide, and the balance of Oregon, ex Chrysolite, were offered at auction yesterday, but bidding not being up to importers' views, they were withdrawn.

The trade are doing a large business, which seems likely to continue.

The arrivals have been—Mario Becker, from Gothenberg, and Bertha, from Frederickstad, with flooring; Felix, from Goffo, and Leto, from Soderham, with deals; Hooghly, from St. John's, Memnon, from Sagunay, and Augusta, from Chicoutim, with spruce deals, flooring, and pickets; Star of Peace, from Port Gamble, with Oregon timber, laths and pickets; Rodney, MacCullum More, Andross, Sussex, and Loch Shiel, from Great Britain, with flooring, deals, slates, lead galvanized iron and cement; Etna and Hanover, from Hamburg and Autwerp, via London, with galvanized iron and cement; Emo and Navosink, from Boston, with clear pine, shelving, ceiling, spruce deals, slates, laths, and plaster; Stanley, from Kaipara, with Kauri pine; Nemesis, Wendouree, Laura, Rodondo, Konowarra, and Cheviot, from South West coast and laths; Victorian and Australian, from Adelaide, with laths and plaster.

RED DEALS.—Imports: 613 standard, from the Baltic. The arrivals have been Felix, from Goffo, and Leto, from Soderham. Sales by auction during the month have been light. On the 30th October the cargo ex Mississippi was offered, when only 300 pieces 9x3, brand HBA, were sold at 5d. per foot of 3. Other sales have been of parcels ex Charlotte Lange and Wilhelmina.

SPRUCE DEALS.—Imports: 59,576 pieces. The arrivals have been Hooghly, Memnon, and Augusta from Canada, Emo and Navosink from Boston, and Adrossa from Liverpool. Sales by auction comprise cargo ex Memnon and shipments ex Navosink and John Lewis, the latter being a transhipment from Adelaide; 11x3 realized 3gd. to 3d., and 9x3 3gd. to 3gd. The cargo ex Hooghly was offered yesterday, but 33-16d being the best offer it was withdrawn for the present.

OREGON TIMBER.—Imports: 637,114 feet super. This parcel arrived in the Star of Peace from Port Gamble, and was offered at auction on the 13th inst., but only a small portion was sold at £6 12s. 6d. for deal sizes, and £6 15s. for slitches. The cargo, ex Nemesis, was sold on 2nd inst., at £7 2s. 6d. to £6 10s. The balance of cargo, ex Chrysolite, was offered at auction yesterday, but £5 7s. 6d. being best offer, it was withdrawn.

LUMBER.—Imports: Clear pine, 260,888 feet super; white pine shelving, 96,190 feet super; T. and G. ceiling, 15,687 feet super. The arrivals have been Emo and Navosink, from Boston. The cargo, ex Navosink, was offered at auction on 16th inst., when all the shelving was sold at an advance on last quotations, Peabody brand realizing £14 to £13 12s. 6d. reverse, £13 12s. 6d. to £12 12s. 6d. T. and G. ceiling, £10 2s. 6d. Michigan clear pine realized £18, and Canada clear, £17 10s.

PINE.—Imports: Nil. Auction sales.—Nil.

REDWOOD.—Imports: Nil. Sales by auction have been made of 1 in. 2 in. 3 in. and 6 in. at £11 10s.

FLOORING AND WEATHERBOARDS.—Imports: 2,776,160 feet lineal from the United Kingdom and Norway; 1,028,930 feet lineal from Canada. The arrivals have been Mario Becker and Bertha, from the Baltic; Memnon and Augusta, from Canada; Rodney and Loch Shiel, from Great Britain. Sales by auction during the month have been made ex Charlotte Lange, Ivanhoe, Wilhelmina, Schwanden. The following being prices realized: Red 6x13, 10s. 6d. to 9s. 6d.; 6x7, 8s. to 7s. 9d.; 6x7, 6s. to 5s. 9d.;

6x7, 5s. 6d. to 5s. 3d.; 5x7, 4s. 9d. to 4s. 6d.; 4-out weatherboards, 6s. 9d. to 6s. 6d. White 6x13, 9s. to 8s. 3d.; 6x7, 7s. 6d. to 7s. 3d.; 6x7, 6s. to 5s. 3d.; 6x7, 4s. 9d., 6x7, 4s. 8d. to 4s. 4d.; 4-out weatherboards, 6s. to 6s. 3d.

KAURI PINE.—Imports: 233,127 feet super. The only arrival since our last has been Stanley, from Kaipara, cargo of which was sold by auction on 13th inst. Sales have also been made Marie Virginia and Robin Hood, of logs, at 12s. to 10s. 6d.; slitches, 17s. 9d. to 12s.

CEDAR.—Imports: 269,140 feet super. The arrivals have been Nemesis, Wendouree, Laura, Rodondo, Konowarra, and Cheviot, steamers, from Sydney. The only sales by auction of logs took place yesterday, when about 94 were sold at 51s. to 33s.

RED AND WHITE PINE (Colonial).—Imports: Nil. Auction sales.—Nil.

DOORS.—Imports: Nil. On 10th inst., sales by auction of American doors, ex various ships, were made: 2 ft 6 in. x 6 ft. 6 in., 1 1/2 in. d. m. No. 1 realizing 9s. 9d., each in bond, do., 2 in. do., 12s. 3d. do.; 2 ft. 8 in. x 6 ft. 8 in., 1 1/2 in. do., 14s., do.; do., 1 1/2 in. do., at 16s. 3d. do.; 2 ft. 10 in. x 6 ft. 10 in., 1 1/2 in. do., at 18s. do.; 3 ft. x 7 ft. 1 1/2 in. do., at 20s. 3d. to 20s. do.; do., 2 in. do., at 21s. do.

LATH AND PICKETS.—Imports: Laths, 4,578 bundles; pickets, 3,953 bundles. Sales by auction have been made of Oregon laths, 4 1/2 feet, at 42s. to 41s.; 4-foot, 33s. Oregon pickets, 6-foot, £9 7s. 6d.; 5-foot, £10 1 1/2 feet, £9 15s. to £9 7s. 6d.; spruce laths 4 1/2 feet, 41s. to 40s. Spruce pickets, 4 1/2 feet £7 10s. to £7 7s. 6d. Baltic white laths, 4 1/2 feet, 32s. 6d., 4-foot, 20s. 6d.

DESTRUCTION OF FORESTS.

Several years ago there was great lamentation over the destruction of the buffalo, until some political economist suggested that as ox required no more food than a buffalo, and that the country would be richer by hundreds of millions of dollars if the buffalo could be exterminated and their places occupied by good breeds of cattle. We remarked to a friend, recently, that the supply of good pine lumber was nearly exhausted in this country. He said he was glad to hear that was the case, for as long as the pine lumber lasted it would exclude from the market various materials that have been experimented with sufficiently to prove that they are in all respects equal to, and on many accounts superior to lumber.

It seems more than probable that ten years after the pine lumber shall have disappeared there will be but few regrets for its loss; and that in the next century a new growth will have taken the place of the old, undisturbed by the axe of the pioneer. The history of the lumber trade may come to resemble in that respect the history of the whale oil trade. Petroleum destroyed that business, as straw-lumber, paper mache and similar manufactures are likely to destroy the lumber trade.

There can be no doubt but that the wholesale destruction of the forests in this country is doing great injury to its agricultural interests, and that it should be stopped, and particularly in the older States, where hardly any trees are left to make new forests, and where the soil is so thin that the land becomes a desert when unprotected by tree. But in unsettled portions of the country to which immigration is not attracted it is probable that the evil work out its own cure through natural causes.

Not Content With Being the Best.

Whatever may be said in regard to the propriety of the management of great railway lines to provide for the public only what is actually demanded in the way of accommodations and comfort, can in no way apply to the management of the Chicago, Rock Island & Pacific Railway, or as it is more familiarly known, "The Great Rock Island Route." This line has for years been recognized as the best and most comfortable route between Chicago and Kansas City, and the Southwest, and has been abundantly able on this account to successfully cope with its competitors. But not satisfied with this success and its already elegant equipment, its managers have caused to be turned out of its shops at Chicago, a magnificent line of Dining Cars, which go into immediate ser-

vices on the Kansas City Line. These cars contain all the conveniences of well-furnished dining rooms, are elegant in design and finish, and models of the advanced railway art of the day. Within them meals are furnished equal to those of any first-class hotel in the land at the low rate of seventy-five cents. Travellers on this line now find on its trains all the comforts and conveniences of first-class hotels. Besides the best of first and second class coaches there are Parlor Chair Cars (which are free to all passengers holding through first-class tickets), Pullman Palace Sleeping Cars and Dining Cars.

This Company's lines, all of which are equally well equipped—also extend to Council Bluffs and the West, and Minneapolis and St. Paul and the Northwest; and the deserved praises bestowed upon it by returned travellers who speak from experience, make it noted throughout the land.

We bespeak for the owners and managers of this magnificent railway ample returns for their generous provisions for the wants of the public, which is, as has already been proven by the patronage extended to this line, quick to appreciate and patronize those who prove by their deeds and generous treatment that they are devoted to its comfort and welfare.

"The Journal of Progress."

We have watched with much interest the inception of a new monthly magazine entitled *Journal of Progress The Woodworker's Magazine*. It is one of the most tastefully printed periodicals that we know of, embellished as it is with a coloured cover, appropriate title head-piece, initial letters, handsome engravings, etc., and printed in good type on excellent paper. The number before us contains two large, full page engravings, designed especially for this magazine, which for elaboration, finish and general excellence will be much admired. The *Journal of Progress*, although ostensibly a woodworker's magazine, contains a great variety of matter—much of it from eminent authors—suited to readers of almost any description. Its columns headed Chips, Curious, Historical and Scientific, Literature, and Important General News, and its series of papers on "What Shall We Do With Our Boys?" by some of the most prominent writers of the day will be looked forward to much with anticipations of pleasure. It is published by the *Journal of Progress Company*, 907 Arch street, Philadelphia.

Killed in the Woods.

On Friday afternoon, Jan. 11th, two young men in the employ of Mr. Little, lumberman on the St. Maurice, were felling a tree in the woods. A large branch, falling, struck one of the young men and killed him instantly. The deceased, Edward Young, belonged to Three Rivers.

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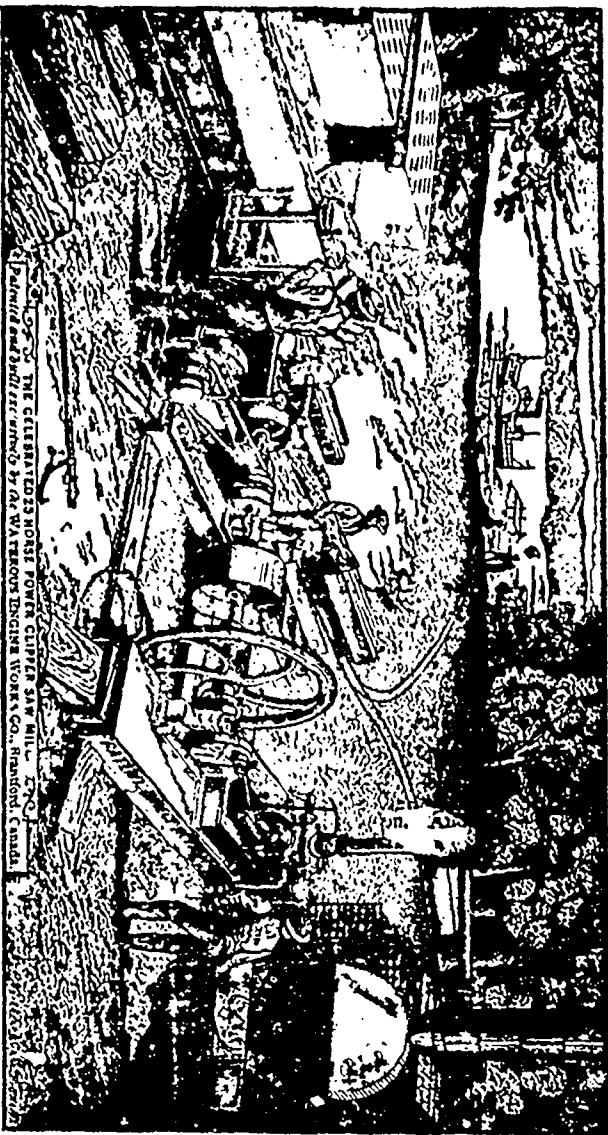
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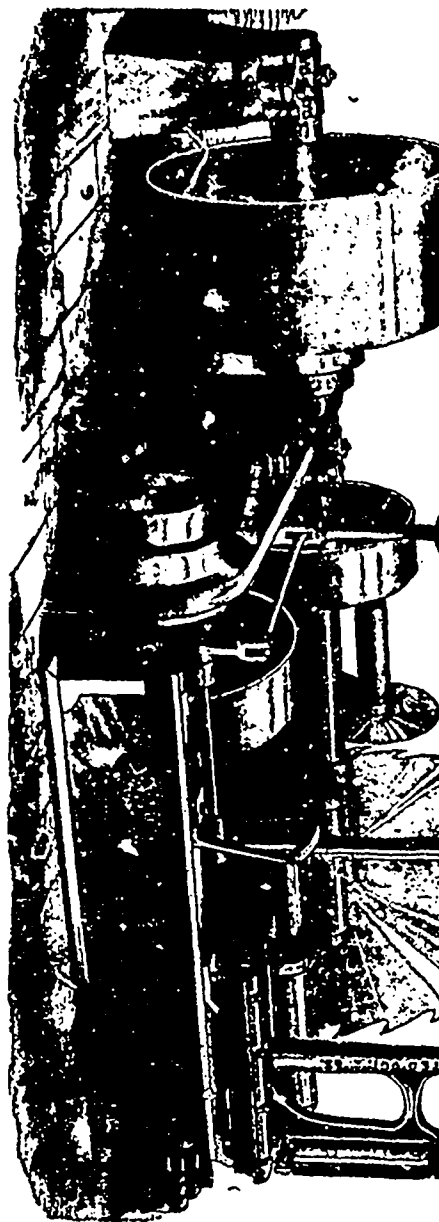


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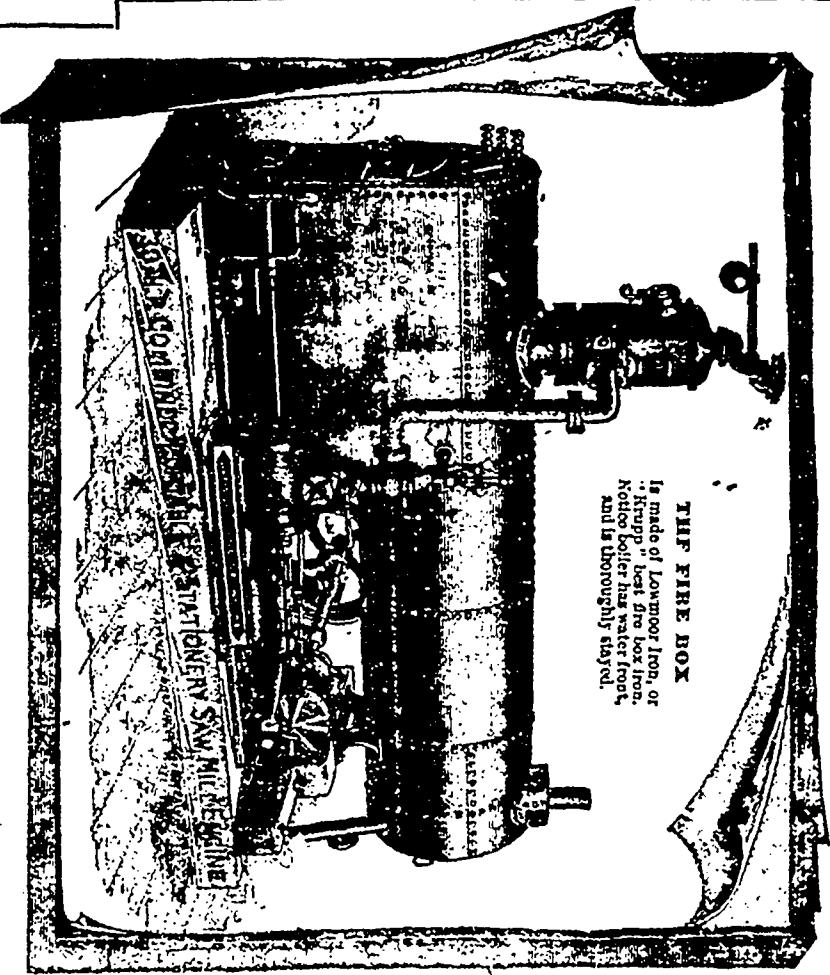
Using 4 to 12 inch Face Pitches: Steel Mandrels; Reservoir (oil Boxes); Double Leather Feed Belts, from 2 1/2 to 6 inches wide, takes 72 inch Saw and under. **GABRIAGGS** to cut any length desired for slabbing or stock purposes, ship yards, etc.; Ratchet or Trolley's Friction Set Works, Eagle Claw Dogs, Tiger Dogs, Reversing Attachment, and special features.



Automatic Log Rollers, 2, 3 and 4 saws; Automatic Lumber Trimmers, 5 to 9 saws each; Log Turners, Slash Tables, Log Jacks or Haul-up of all Capacities, Endless and Single Chain; Automatic Log Rollers, Transfers, Live Rolls, Shingle Machines, Drag Saws, Knee Bolters or Block Splitters, Shingle Packers, Gang Lath Mills, Stave Machines, Automatic Sawdust Feeders for Gangs of Boilers, Sawdust, Slab and Refuse Conveyors, Elevators, Pickering Governors, Worthington and Blake Steam Pumps, American Planing and Matching Machines, American Saws, Solid and Inserted Tooth, Extra Thin Circular Board Saws a specialty, Swages, Gummers, Emery Wheels, and all kinds of Saw Mill Furnishings kept in stock.

WATKINS ENGINE WORKS CO., Brantford, Canada.

Send for New Price List and Illustrated Circular, of special interest to saw-mill men. Mention this Paper.



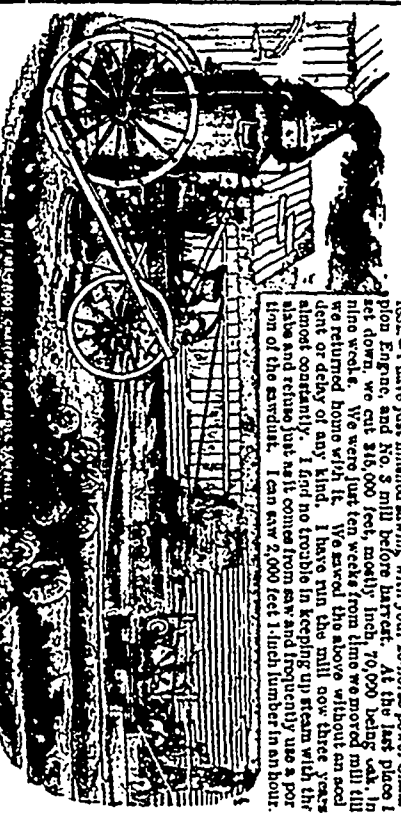
THE FIRE BOX
Is made of Lowmoor Iron, or "Krupp" best fire box iron. Boiler boiler has water front, and is thoroughly stayed.

This Cut represents the Engine furnished with Nos. 8, 12, 16 and 18 Saw Mills.

A. & P. White, Pembroke, have one of these 30 H. P. mills at Deux Rivieres, C. P. R. R. G. C. V. Hall, Quebec, has one of these 30 H. P. mills at St. Agnes, Quebec. Also, W. & F. Wallace, Gardner's Creek, N.B., with 60 foot Ship Yard Carriage.

Champion Portable Saw Mills

12, 16, and 20 H. P.



Greatest Book writes as follows:—"St. Ann's, Oct. 7, July 31st, 1892. I have just finished sawing with your 20-horse power Champion Engine, and No. 3 mill before harvest. At the last place I set down, we cut 315,000 feet, mostly 12-inch, 70,000 being cut in nine weeks. We were just ten weeks from time we moved mill till we returned home with it. We sawed the above without an accident or delay of any kind. I have run the mill now three years almost constantly. I find no trouble in keeping up steam with the above and refilling just as it comes from saw and frequently use a portion of the product. I can saw 2,000 feet 12-inch lumber in an hour."

The following are a few who have bought these mills:—

- Canada Pacific R. R. Co.
- G. B. Hall & Co., Que. (2)
- Dominion Land & Co. (2)
- Shorthrope, Que. (2)
- Sorel R. R. Co., Que. (2)
- Yochimac Rancho Co., N. W. T.
- Dow It., N. W. T.
- Nov. West Milling and Mining Co., N. W. T.
- Dow It., N. W. T.
- Toronto and Nov. West Colonization Co. Near Brantford.
- Morton Dairy & Farming Co., Turtle Mountain.
- Allan Grant Ottawa.
- Geo. Parley, Ottawa.
- Michigan Native Copper Co.
- W. W. Stewart, Montreal

MAGNITUDE OF OUR LUMBER MANUFACTURE.

The Saginaw River is the largest lumber producing point in the world. Since 1870 the cut each season has ranged from 730,000,000 to over 1,000,000,000 feet in round numbers. The season of 1883 was in many respects unfavorable for active operations of the mills. The mills got a late start and early in the season many heavy rains set in and continued until the first of July, causing high water, which in some instances forced the mills to suspend for weeks. The streams were flooded and log rafting checked, consequently many of the mills were delayed for want of logs and to crown the misfortune the Tittabawassee boom men struck, and log rafting was entirely suspended for a period of two weeks. There was also more or less delay for logs during the balance of the season. Under these circumstances the record of the mills, cutting an aggregate of 938,675,078 feet of lumber, is an extraordinary one, when it is considered that 1882 was the banner year, no untoward circumstances occurring to cause delay during the entire season, and yet the production of 1883 only falls short of that of 1882 in round numbers about 73,000,000 feet.

NORTHERN AND NORTHWESTERN RAILWAY.

To the Editor of the Canada Lumberman.

SIR,—In your issue of Dec. 15th your Toronto correspondent gives some figures to prove that this Company exacts a higher rate of freight on lumber from common points to Toronto than the Midland, and also states that the Midland Company has cancelled all shunting charges to sidings west of Bathurst street, and to Parkdale, and that the N. & N. W. Railway is the only line that insists on collecting these charges.

In the first place your correspondent makes the error of adding shunting charges to our rates, and deducting terminal charges from the Midland's, before making comparison.

His selection of shipping points is not fair, as in citing Midland (a Georgian Bay point) he should have shown in comparison our Penetang and Collingwood rates, which are exactly the same, and also Georgian Bay points; and as regards the statement that we add \$2.00 per car on lumber destined for Parkdale, such a statement could only be made on utterly incorrect information. The facts are: Parkdale being a regular billing station on the N. & N. W. Railway all lumber consigned direct to that station is, of course, delivered without any shunting charges, for at no time has shunting been charged on direct consignments. But when lumber is consigned to Toronto, and we are asked to haul it back to Parkdale, surely we are justified in making a charge for so expensive a service.

Then as to the assertion that the Midland makes no charge for shunting to west end sidings. I have Mr. A. White's statement in writing before me that the Midland Railway collects shunting charges, in addition to freight, on all lumber consigned to Toronto and ordered to Parkdale, and west end sidings.

Mr. John Earls, of the Grand Trunk, also assures me that his company collects shunting for this service.

Now, as your correspondent has such accurate information, he should be able to prove that Messrs. White and Earls are wrong in saying their companies do make these charges, otherwise, he should withdraw his statement against this company.

Herein I give you figures showing comparison of rates on Midland and Northern, viz.:

	When consigned to Toronto and ordered to Parkdale, or to Bathurst and King Streets.	When consigned to Toronto and ordered to any siding between Parkdale and Bathurst and King Streets.	When consigned to Toronto and ordered to any siding between Parkdale and Bathurst and King Streets.
Midland	\$ 23 40	\$ 22 40	\$ 21 40
Waubushenc.	20 40	22 40	21 40
Penetang	20 40	22 40	21 40
Collingwood	20 40	22 40	21 40
Gravenhurst	21 00	23 60	22 00

Press of business and absence from the city has prevented me from replying to these strictures of your correspondent before.

By-the-by, why does he exercise such extreme care to cover up his identity? Why not appear openly and discuss this subject frankly with us?

By so doing he will hear both sides of the question, and can then deal with the subject more intelligently and with some degree of correctness.

Yours truly,
ROBT. KERR,

General Freight and Passenger Agent's office Northern and Northwestern Railway, Toronto, Jan. 12, 1884.

To the Editor of the Canada Lumberman.

SIR,—Referring to Mr. R. Kerr's letter dated Jan 12th.—In justice to the Northern & Northwestern railway will you kindly permit me to state that the shunting charges of this division, and also rates from competitive points are precisely similar to those of the Northern and Northwestern.

Through a misunderstanding upon the part of our late agent at Toronto some shunting charges in that city were not collected, but accounts are now being rendered and will no doubt be duly paid.

We look upon our lumber merchants' interests as being identical with our own, and try to arrange our affairs accordingly, but never through petty cuts in rates, which our best customers would be the first to condemn.

Yours respectfully,
A. WHITE,

District Traffic Manager, Midland Division, Grand Trunk Railway, Peterborough, Jan. 10th, 1884.

WOODS IN THEIR EARLIER STAGES.

When the late distinguished chemist Liebig first turned his researches to the benefit of agriculture, he caused some manures to be manufactured which, on his recommendation were widely applied and tested. He had determined by analysis exactly what the crops required for their nutrition, and he had supplied by means of chemical compounds those substances in which certain soils were defective. Confidently awaiting great results, he was much disappointed when farmers convinced him that there was no commensurate improvement. He was not a little puzzled by this unaccountable failure of theoretical science; but all at once it dawned upon him that he had neglected the most obvious and essential precaution. He had neglected to render his compound soluble in water. Seeing that all vegetables—agricultural crops as well as trees—imbibe their nourishment from the ground dissolved in water, this fatal error had rendered the manures inoperative. When, however, the same ingredients were combined in a form soluble in water and applied to the soil, and the results were most satisfactory. A similar error may be committed by the forester if he allow his wood to become so open and defective in shade, that the moisture accumulated during the winter may be dried up early in the summer or before the end of the season of active vegetation. It is apparent how important a part moisture or water plays in vegetation. Trees will thrive almost equally well on soils of the most different geological formations, if only the condition be fulfilled that there is a sufficiency of moisture. For most trees, it matters very little what rock it is which has crumbled to form the upper soil so long as the soil is moist enough and of sufficient depth to retain moisture. The moisture showered on the forest soil during the winter months requires to be stored up and economized so as to last over the summer period of active vegetation, and to this end it is necessary to keep the ground densely shaded from the sun's rays. The close order of trees producing the requisite shade also enriches the ground with more fallen leaves, giving forth in their decay an increased quantity of carbonic acid—a powerful solvent of the soil minerals. Shade arising from close order will be accompanied by a greater measure of stillness and the useful gas will not be wafted away by the wind, but remain in the covert forming watery food for the roots.

It is not altogether uncommon to see young woods in which many of the trees are crooked or forked and of a branching habit, the ground underneath them being covered with a profuse vegetation of annual weeds and grasses intermingled with such other weeds as cranberry, whortleberry, broom brambles, or heather.

These symptoms are indications that the woods have been originated from plants two wide apart or two severely thinned, or that both these errors have been committed in their treatment. Instances may sometimes be encountered in which it is attempted to correct the multiplicity of side branches by a wholesale system of pruning. The strong development of side branches being a sign that too much light is penetrating the covert, and that the upper canopy of foliage is not dense enough, pruning will in these respects make matters worse and favor the growth of the weeds. In forestry on an extensive scale, where timber raising is chiefly a financial undertaking, the pruning of young trees in the forest will be quite an exceptional operation. It may be all very well in a park wooded for ornament and game preserving, but in a forest the area of young trees will be so considerable, and counting several thousands of young trees per acre, that the attempt to traverse it with pruning operations will generally be hopeless. Where the attempt is made, the growing sense of the magnitude of the task is apt to induce haste and carelessness in the execution. But all the toil and expense of pruning woods during the earlier stages of their growth may be very simply and effectually avoided by crowding the young trees more closely together.

As already indicated, the branching habit which pruning strives to correct as well as the tardy growth which may accompany it, arises from the too wide difference between the young trees. To the introduction of a wide and open fashion of covert several causes may have contributed in this country. In the first place the revival of forestry in Britain may be considered to date from the extensive formation of Larch plantations by the late Duke of Athol. Now the larch is quite an exceptional tree, and more necessitous of light and air than any other. It is by no means improbable that the methods and rules conducing to the successful cultivation of the larch would at first be apt to obtain a general application. These being transferred to other trees would tend to perpetuate a pattern of wide separation in planting. Wide planting may have been encouraged also by the desire of saving the expensive labor of early thinning, and by apprehension of the bugbear of weakly drawn up plantations in which the slender poles bend with their own weight. In many cases, too, the convenience of shooting caties coverts to be so originated and maintained that at no stage of their growth would there be any difficulty in freely walking through them. A further reason why there is a tendency to have young trees comparatively wider apart than is usual on the continent of Europe is to be sought for in the greater moiety of our climate and its irregularity. Where the seasons are more regular and the summer is generally a long consecutive period of dryness and sunshine, the pressing need of storing moisture by the maintenance of thick shade in the woods is self-evident. Hence the trees are, till near the end of their career, kept close together, with close and interlacing canopy, and the golden rule of silviculture is to keep the sunshine off the ground. Our climate, with its occasionally more copious summer rains and general irregularity, rather keeps this rule to some extent out of sight than invalidates it. Before we consistently neglect it, we shall do well to consider carefully the other disadvantages which follow where trees have spaces between them admitting sunshine to the ground.

Besides endangering the continuous supply of moisture in the event of a dry season, the sun in an open covert will call into existence a luxuriant growth of annual and other weeds. These increase evaporation of moisture, and interfere greatly with the formation of leafmould or humus from fallen leaves, a most valuable product which has the chief share in enriching and improving the forest soil. They also absorb a great deal of plant food, diverting nutriment to themselves, and impoverish the soil which, under a dense shade would be reserved for the sole possession and nourishment of timber.

Another disadvantage of open order with interruptions in the canopy as contrasted with full shade, will be manifested in the altered

habit of growth thereby induced. Everyone is familiar with the difference of form between a tree grown singly in the open field and one grown amidst a mass of timber in a close covert. When the sunlight can permeate the covert to the ground, the young tree will acquire something of the isolated type. They will form strong and numerous side branches, because their lower foliage will be kept green by the penetrating sunlight instead of being killed by darkness and contact with near neighbors. Young trees so wide apart will not be so uniformly straight, nor will they grow so rapidly upwards, being rendered irregular and starved by a quantity of branches.

It will therefore be a safe rule to close the woods overhead against the sunlight, and that during the earliest possible stage of their growth. Thus the floor of the coverts may be kept tolerably bare of grass and weeds and covered chiefly with decaying leaves and black vegetable mould. Under such conditions the lower side branches will wither and drop off of themselves, and the principal growth will be in the stem and upwards.

Some indications will be required of the scale of distances apart which would in the earlier stages of woods be sufficiently close to secure desirable results. To specify this so as to meet all circumstances exhaustively would involve many details and would be difficult. It will perhaps be a step in the right direction, leading some way towards practical precision, to specify what is in general the most favorable distance to adopt in originating a covert artificially by planting. An approximately correct answer to this simpler question would provide a standard distance to which other cases might be referred.

Experiments with the object of determining this point are briefly referred to in his Manual of Silviculture, by Dr. Heyer, father of the present director of the forest faculty attached to the University of Munich. This manual was, twelve years ago, the standard text-book on the subject for North Germany. Quoting from imperfect recollection the test laid down was, what distance apart will in 30 years, with hardly any thinning, yield the greatest cubic contents of healthy wood. He considered it sufficiently proved that three feet apart was the most favorable distance. Very numerous and satisfactory plantations, especially of common pine, are to be seen with this scale of distance, which gives each plant the space of a square yard, and requires 4,840 plants per acre. To plant much closer together would presumably produce after some years, such a struggle for existence among the young trees as might be prejudicial to them, or would demand a careful attention to thinning at an early period when thinning would probably be unremunerative. At four feet apart and over, the plants would not so soon take possession of the ground by joining their branches over the growth of weeds and grasses in the clearing, nor would the trees be so numerous as to yield equal cubic contents after 30 years.

If the distance of three feet apart should sustain its advantages for plantations in this climate, as would probably be the case, a standard of distance would be furnished which would be a guide in the origination of coverts also by natural or artificial sowing. Where the seedlings in these latter came to stand much closer together it would be well to weed them out during the first five years. In case of future accidents which might reduce their numbers, it would be prudent to leave them considerably more numerous than in the pattern plantation. Where, on the contrary, there were fewer than this proportion, additions would have to be made by planting up the gaps till there were about 5,000 plants per acre.

In plantations of three feet apart maintenance operations during the first five years would be confined to the replacing of those plants which might have died, and the removal of too luxuriant and dangerous weeds. From then till their 20th year they would require little attention. Their periodical examination would probably not reveal necessity for any treatment, unless in mixed coverts the different rates of growth of different kinds of wood should render assistance necessary. Certainly in their tenth year trees three feet apart would as yet be

unlikely to suffer much from overcrowding. They would in the 10th year after planting, if they had made good progress, form a thicket through which a man would have some difficulty in passing, the ground will be well shaded and darkened, and the lower branches would be withering. In the 20th year the thickened stage would still continue. By this time some few of the young poles might have succumbed in the competition for light; these would be observable withered and dry under the shade of their taller neighbors. If the growth having been very rapid the struggle is becoming very severe in the thicket, or if the dead wood should have accumulated to such an extent that it would defray the cost of its own removal, a thinning may sometimes take place in the 20th year. Or if the growth is a little less rapid the first thinning may possibly take place on the same conditions in the 25th year, limited strictly to the dead or withering wood. Plantations will in many cases take no harm if allowed to fight their own battle to their 15th year, and then the survivor will be straight and devoid of side branches.—*N. N. in London Forestry.*

THE MECHANICAL EFFORTS OF ROOTS.

The true mechanical efforts of roots are exerted in their struggle for progress through the soil, and examples for illustration are many. To understand the magnitude of this work, we must bear in mind that each root displaces an amount of soil equal to its own bulk. Take for instance a crop of mangel wurzels, and imagine what an upheaval must have been produced in the soil by the growth of its enormous mass. The whole surface of the field is raised and its particles loosened.

In practical questions of the farm, this power is of value. Those who give turnips and mangels a place in their system of rotation, do so ostensibly for their feeding value, but beyond this, their mechanical effect is also of much importance.

The most striking results of the mechanical power of roots are seen when they come in contact with the most resisting obstacles. They have been unearthed from compact gravelly soil, where the struggle for room had been so fierce that they become distorted out of all natural shape. It is not unusual to find trees growing in the clefts of ledges, showing unmistakably that the expansion of the roots has forced the rock apart. A case is cited, on good authority, of the root of a sugar maple that had pushed its way under a rock weighing nearly two tons, and by its enlargement lifted it entirely from its bed. Trees have been observed growing on the bare rock, resting upon their roots which ran out into the soil on either side, and yet these roots, supporting the enormous weight of the tree, formed each year new growth on their under side, and lifted the tree by the spaces of its thickness until seven inches of wood had been formed under the severe pressure.—*Journal of Progress.*

FORESTRY IN THE DISPUTED TERRITORY.

A WINNIPEG correspondent says:—When the Privy Council awards the disputed territory to one province or the other, among the earliest measures to be considered should be a way of enforcing forestry laws in northwestern Ontario or southeastern Manitoba—whichever it may prove to be. The country is to a great extent so rocky that should the timber be once cleared away from its surface it will never grow again. No better chance for putting into practice the advice contained in Mr. R. W. Phipps' excellent pamphlet could well be found. The saw mill returns for Manitoba and Keewatin, up to October 31st of last year, show some 30 huge mills in operation throughout the province and Keewatin during the year. The returns show 25,465,841 feet B. M. of lumber manufactured during the year, 6,442,232 feet of shingles, and of lath 2,251,100 feet. Gratifying as the returns are in themselves, there is no doubt but that the country is being shorn of its timber indiscriminately, and will soon be deforested unless the milling operations are controlled. The country is at that stage when a law preserving alternate strips of forest, or presenting some limits to timber slaughter could effect what

never could be accomplished when once the wood is gone.

EBONIZING WOOD-WORK

There are many receipts for ebonizing, and the following are given by Mr. Harry Hems: 1. Infuse gall-nut in vinegar, into which rusty nails have been soaked; paint the wood with this, and polish and burnish when dry. 2. Wash the wood repeatedly with a solution of sulphate of iron, made by dissolving two ounces of sulphate in a pint of hot water. When dry, apply a hot decoction of logwood and nut-galls two or three times. When dry clean with a wet sponge and then polish. 3. Brush the wood with a strong decoction of logwood chips several times. When dry give it a coat of vinegar in which rusty iron has been placed. Dissolve borax in turpentine by setting in a warm place; apply warm with a brush, and rub it till it shines. 4. Wash with a concentrated aqueous solution of logwood several times, and then with a solution of acetate of iron of 40 deg. Baumé. Repeat till a deep black is produced. 5. Put 2 oz. of logwood chips with 1½ oz. of pers in a quart of water, boil and lay on box. When dry, wet the surface again with 2 oz. of steel filings dissolved in half a pint of vinegar. When dry again, sand-paper smooth, then oil, then fill it with powdered drop-black mixed in the filter. Work to be ebonized should be smooth and free from holes. Give it a light coat of quick drying varnish, then rub with finely pulverized pumice stone and linseed oil until very smooth. 6. Boil half a pound of logwood in two quarts of water, and add ½ oz. of verdigris and ½ oz. of copperas, stain, and put in ½ pound of rusty steel filings. With this go over the work a second time. 7. A pound of logwood boiled in four quarts of water, add two handfuls of walnut shells or peel, boil up again, take out the chips, add a pint of vinegar, and apply boiling. Afterwards dissolve 1 oz. of green copperas in a quart of boiling water and apply hot. 8. First sponge the wood with a solution of chlorhydrate of aniline in water, to which a small quantity of copper chloride is added. When dry, go over again with a solution of potassium bichromate. Repeat this twice or thrice. 9. One gallon of vinegar, ½ pound of green copperas, ¼ pound of China blue, 2 oz. of nut-gall, 2 pound extract of logwood. Boil all these over a slow fire, and add half a pint of iron-rust. Apply as usual. A good varnish for ebonized work is made by dissolving in alcohol some black wax.—*Journal of Progress.*

A Substitute for Mahogany.

An imitation of and substitute for mahogany, useful in fine manufactures, is due to French ingenuity. The first operation is to plane the surface of any species of close-grained wood until it is perfectly smooth, and it is then rubbed with diluted nitrous acid, which prepares it for the materials subsequently to be applied. These consist of one and a half ounces of dragon's blood, dissolved in a pint of spirits of wine, and one-third of that quantity of carbonate of soda, mixed together and filtered, the liquid in this state being rubbed, or rather laid upon the wood with a soft brush. The process is repeated with very little alteration, and in a short interval the wood possesses all the external appearance of mahogany.—*Warren's Monthly Review.*

Advice to Mothers.

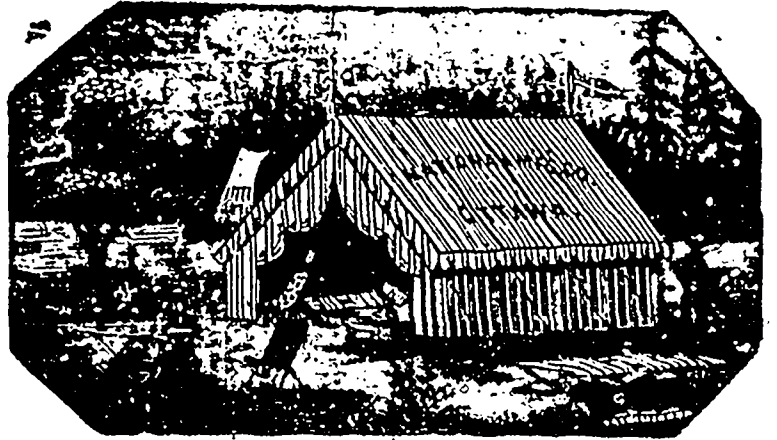
Are you disturbed at night and broken your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system. Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the prescription of one of the oldest and best female physicians and nurses in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

SURE SIGNS.—Distress before or after eating, loss of appetite, belching of wind, heart-burn, irregular action of the bowels, and nervous irritability are sure signs of Dyspepsia. The sure cure is Burdock Blood Purifier. Procure and read the testimonials.

National Manufacturing Co.

160 Sparks Street, Ottawa,

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OUR GOODS ARE THE BEST IN THE WORLD!

Four Gold and Silver Medals and Thirty-two First Prizes at the Toronto and Guelph Exhibitions, 1883.

Highest Awards at Sydney, New South Wales: Exhibition June, 1883.



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P. O. BOX 845



DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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The CANADA LUMBERMAN is filed at the Offices of Messrs. SAMUEL DRAGON & Co., 114 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

PETERBOROUGH, Ont., FEB. 1, 1884.

DEER are so plentiful around the Michigan and Wisconsin pine lands that the boys in the camps often enjoy venison steak in spite of the law.

It is the intention to bank on the Chippewa and tributaries, in Wisconsin, not far from 800,000,000 feet this winter, although there are not over two-thirds as many camps as last year.

MANY portable mills have been set up in the woods of Maine for the purpose of working up the timber blown down by the winds last season. An unusual number of trees were thus preserved.

THE Surveyors of the American & Mexican railway report that there are immense forests of cedar and pine in the southeastern portion of Chihuahua. The entire Sierra Madre interiors are heavily timbered.

INDICATIONS from Wisconsin point strongly to the fact that there will be no reduction in the lumber cut in that state. In fact many of the heavy lumber firms there will greatly exceed their former output.

In some of the large saw mills in the Northwestern lumber district a small appliance is attached to the trimmer, which automatically stamps the name of the company or mill on every board that passes over the machine.

THE first through train to Menominee, over the Milwaukee & Northern branch, arrived January 8. Regular trains were to be running on January 14. This connection gives Menominee a new rail outlet for lumber south and west.

THE Muskegon lumbermen and the city treasurer are at loggerheads over the place where logs shall be assessed, the assessors claiming that they should be assessed in Muskegon, and the lumbermen that they should be assessed in the township in which the logs may be at the time of assessment. It is likely to lead to protracted litigation.

A Mr Carpenter, in the Thunder Bay district north shore of Lake Superior, in Canada, is running a number of camps on Slate river, Blake township. On December 21 he had 10,000 or 12,000 feet of logs skidded, but there was not snow enough to haul them to the bank.

In ten years there was to be a scarcity of timber in Canada, but certainly it has not been felt in this country as yet, nor is it likely to be so this year, when native timber is, as we have shown, cheaper than it ever was known, and our foreign supplies are so bountiful a scale as the requirements of our trade can keep pace with.

EARLY in the spring of 1884, the Seattle, W. T., mill of the Columbia & Puget Sound Railway Company, will be sent to the Green river coal mines, while the company will build a much larger one at Seattle, the foundations for which are already driven. The new mill will be 60x100 feet, two stories high, with an engine and boiler room 40x60 feet one story. It will be owned by the Oregon Improvement Company and will be first class in every respect.

THE Newmarket *Krc* says:—The new automatic pull-handle borer is running nicely, putting holes through 40 handles per minute, an increase of 25 on the old method. The handles are then turned and shaped at the rate of 35 or 40 per minute. The firm is now inventing another machine to bore four holes and cut a groove in the rim of a washboard all at one time. Messrs. Cano & Son will soon have the manufacture of small woodenware down to a fine thing.

A CORRESPONDENT at Roscommon writes that since the good sleighing set in many lumbermen have begun erecting camps who thought they would not lumber this winter, and will put in a large amount of logs. Parties are also heavily engaged all along the railroad from Bay City to Mackinac in getting out ties, posts, telegraph poles, hoop poles, cedar for paving, hardwood and hemlock bark. Take it all around, this is likely to be as good a winter for lumbering as last winter.

THE *Lumberman's Gazette* says:—The weather for the past week has been propitious for logging operations, both in Michigan and Wisconsin. The snow is abundant for hauling purposes, and the logs are being banked with wonderful rapidity. The vast amount of logs which had been previously put on the skids will keep the logging roads lively for some time to come, and the probability is that during the last week in December and the two succeeding weeks, the first in the new year, there will be more logs banked in both these pine producing states than has ever been known in the same time during the history of the business.

THE first person who attempted to submit wood to distillation for the purpose of obtaining gas and other products, was Philip Lebon, near the close of the last century: and in 1799 he took out a French patent for methods of using combustibles with greater economy, as well for heat as for light, and collecting the different products. Three years later he obtained the use of a part of the Rouvray forest, near Havre, for the manufacture of tar, engaging to deliver five quintals, about 1,100 pounds a day, and with apparatus of large dimensions he was able to supply a notable quantity of tar for the French Marine. He died in Paris in 1804, and the business was continued to 1811.

FREE LUMBER.

The strongest characteristic of the New York *Sun* is persistence. Whenever it takes hold of a subject it never lets go till it is squeezed dry. Last year the *Sun* was the leading advocate of placing lumber on the free list. The movement was very properly killed in Congress. Since Congress re-assembled that paper has again taken up the cudgel in favor of "free lumber" and has been hammering away at it since at the rate of one to two columns daily.

The usual routine was followed. First, an alarming editorial appeared concerning the devastation of the Adirondack forests situated in

the Northern part of the State. Not that the devastation flooded the New York markets with lumber, but because the destruction disturbed their fluvial functions and threatened the water supply of the Hudson river and other streams. Then followed leaders on "The Flow of Rivers;" "The Forests of the United States," and so forth till the object in view was reached—"Free Lumber." As to the purchase by the state of the Adirondack forests, to preserve them, we have nothing to say, further than to wish the scheme the fullest success; but when the press of New York ask that they be preserved by removing the duty from lumber and thus placing the forests of Canada in direct competition with those of the South we earnestly protest.

It is well known that vast sums of money have lately been invested in Southern pine land purchased from the Government. It is also well known that the \$2 per 1,000 feet tariff paid on Canada lumber does not prevent it from being brought into competition in New York markets with lumber from Southern forests. Our woods bring little enough now in Eastern markets. To further embarrass the trade with free lumber would be unjust and a species of bad faith on the part of the government after so recently disposing of millions of acres of pine lands.

The people of Maine, Michigan and Wisconsin, who are next door neighbors of Canada, probably understand this matter better than the thirsty editors of New York city, and it was due to the representatives of those States that the move for free lumber was killed in the last Congress. The lumber business of the South is just assuming creditable proportions and needs other stimulus than competition with foreign forests, and we hope the representatives from the timber States of the South will take an active step in seeing that the duty on lumber is not removed. To do so would seriously embarrass those who have already invested in mills and lands, and retard large investments already in contemplation.—*New Orleans American Lumberman.*

THE U. S. DUTY ON LUMBER.

THE *Detroit Free Press* says:—If, as some of the lumbermen claim, the removal of the tariff on lumber will not effect prices, because, as they say, lumber is now sold more cheaply than Canadian lumber can be laid down in the states, there is no reason why they should object to a reduction or removal of the duty. On the other hand, if it will reduce prices, it can only do so by stimulating the destruction of the Canadian forests. If this should be the case, the result would be to give more employment to the men who wield the axe and do the laborious work. It would perhaps keep some of the Canadians at home who now annually come to Michigan during the logging season, and if they are provident take out of this country the net proceeds of their work. This would diminish the supply of working lumbermen in Michigan, and by the necessity of the case increase the rate of wages, which, in spite of all the fine talk we sometimes hear, is now so low that a Michigan worker in the woods who has a family to support finds it hard work to make a decent living.

As consumers would not be detrimentally affected by a reduction of the duty on lumber, and as wage workers could not possibly be, the only question to be considered is whether the millionaire lumber kings would suffer the direct disaster if their profits were, by any possibility, slightly reduced. Let any one examine a list of the very wealthy men of Michigan, and he will be struck with the great proportion of them who have made their fortunes in lumber and pine lands. They always obtained the highest prices they could for their land and commodities, and hired their labor as cheaply as they could get it. Their fortunes were not made by wielding the axe or skidding logs at \$16 a month and board.

WOOD WASTES.

As we see the forests annually shorn of their monarchs, the question naturally arises, what will take the place of timber? Again as we see the very small proportion of a tree that is really utilized as a paying product, we are led to inquire, why can't this waste be utilized? The

question of grinding up and making artificial wood is too expensive, and the best thing that can be done is to submit this residue or waste to some process by which the preservative qualities can be extracted and be used to preserve the timber or lumber used for building fences, furniture, etc. We are informed that the process of doing this is not expensive or intricate, that it effectually preserves wood from decay for an indefinite period, and hence is very profitable. We are informed that one company engaged in this business who pay \$3 per cord for what in many locations south is thrown away, pay a semi-annual dividend of over 80 per cent.

If this be true why not have the subject discussed by those acquainted with the processes? We have fences, houses, railroads, and other erections going up all the while, and if northern brains were coupled with their money southern grit and push, this could be made a great industry. If those living in localities about here where wood is plentiful and cheap, will take the trouble to investigate, they will experience no trouble in finding parties who know all the secrets and have ample capital to push it. People north say that people south have a peculiar faculty of keeping hid many of the facilities which they possess in sufficient number to enable them to complete success fully with some kindred enterprise east and north; as proof of which look at our iron and coal a few years ago and compare with the development of to-day.—*L. D. Fouz, in Nashville Artisan.*

CANADIAN COAL.

The last two or three years have witnessed a decided increase in the production of coal in Canada. Not only has the home consumption been fed more largely, but the quantity exported grew from 219,536 tons in 1877, to 421,311 tons in the fiscal year 1881. The produce of the coal mines of Nova Scotia during the first three quarters of 1883, amounted to 1,078,996 tons, an increase over the same period of the previous year of 97,463 tons. Sales during during the same period aggregated 996,000 tons, an increase of 93,137 tons. At the port of Sydney, C. B., the quantity exported rose from 128,000 tons five years ago, to 313,000 tons last year; while this year, up to the end of October, the shipments of coal from Sydney reached 488,000 tons; allowing for the probable shipments of the two remaining months of 1883, it is likely that 500,000 to 550,000 tons of coal have left that harbor during the year just closed more than half of it going up the St. Lawrence. Then at Pictou the coal shipments have increased in a decided degree. We need not stop here to consider in detail the benefits this activity confers, upon the port and neighboring country, though these cannot be overlooked by any observer. But we will only remark that the shipping of Pictou has felt an undoubted impetus; and as for North Sydney, the arrivals of shipping up to the 1st of November, were 1,151 in number, compared with 836 in the same period of the preceding year: the tonnage of these was 520,000 tons, where the tonnage of the port in the whole year 1879, did not reach 250,000 tons. The mines give direct employment to about 1,500 hands. These are figures which speak for themselves.

The foreign market usually takes from three hundred to four hundred thousand tons of coal. Newfoundland took last year 57,004 tons; the United States 105,943 tons; the West Indies, 19,367 tons Nova Scotia coal. China, the Sandwich Islands and California took their Canadian coal from British Columbia. This year probably 30,000 tons have gone to the United States from Cape Breton, mostly of fine sea coal, for a large part of the coal beds thereabout are under the Atlantic. Further developments of this important trade are being made. For example, The General Mining Association is about opening a new mine at Low Point; and will build an extensive pier at Sydney Harbor, which will be made their shipping point, instead of Lingan. Montreal capital is understood to be extensively used in the operations which are to develop that part of the Island of Cape Breton, and there is every indication that the coal interests of the Dominion are among the most promising, as they unquestionably are among the most immediately prosperous. Some

harm was done, perhaps, rather than good, by the pretty or envious shipments made by Beard, of Montreal, who bought Cape Breton coal for cash and shipped it to Montreal, where he glutted the market. Another Cape Breton colliery is that of the International Coal Mining Company, at Bridgeport, which put out in 1892 we are told, 110,000 tons, it employs 300 hands.

At Stellarton, the output of coal was 141,000 tons last year, and the manufacture of coke amounted to 12,512 tons. Pictou and New Glasgow have various collieries, and employ miners by the hundred. The mines, near the Bay of Fundy, now owned by the Cumberland Coal and Railway Co., and known as the Springhill Mines, employ 500 hands, and put out from a quarter of a million tons upward per year.—*Monetary Times.*

CHOPPING DOWN A TREE.

The Boston Transcript says that the chopper works upon one banded knee. Before beginning to cut, he has looked to see which way the tree is inclined. For this he steps back a short distance to where he can see to its very top. If he is in doubt he lifts his axe by the end of the helve and lets it hang freely suspended. This gives him a plumb-line by which he measures the inclination of the tree. But it is not enough to determine in what direction the tree will fall most readily. It may be that large trees are standing right in the way of its falling on that side, and against these the tree will be lodged. It must be carried to the one side or the other, and herein consists one of the mysteries of wood-craft—the skill to guide a tree in its fall. He will direct it with the greatest ease. Having decided where he wants it to go to avoid the risk of lodging against other trees, or of being broken by falling on uneven ground, or to have it lie so that the logs will be convenient for removal, the chopper first undercuts the tree—that is, he cuts upon the side towards which he will have it fall, and in such a manner that the line of the kerf shall be exactly at right angles with the line along which the tree is to lie. If the tree stands nearly perpendicular, and has no inclination to fall as he wishes, the chopper cuts a little beyond the heart on that side. By doing this he removes the base when the tree is ready to fall, and rests upon a base of but an inch or two in breadth, so much from the centre of the stump. The effect of this will be very great in moving the base so that the centre of gravity will be on the side desired. Though he works in a cramped posture, the chopper cuts the stump so level and so smooth he thinks his little boy could spin his top upon it.

Having undercut the tree with the greatest care, the woodman now changes his position a little, but remains on the same side, rests on his other knee, and shifts his hands, that is, wields the axe with the other hand forward. He now cuts upon the other side, leaving the stump two or three inches higher according as he wishes to gain advantage for the last few strokes. The work goes on with little concern until the base is no thicker than a plank, and quite as even; then a blow is aimed full at the centre, and the chopper looks quickly at the top to note the effect. If he perceives a tremor in the trunk, or if a bit of bark or moss is loosened from its hold, he knows now every stroke will tell, and he aims them with the greatest precision. Soon as over the top bows to its fall he marks the direction in which it is moving. If he wishes to bring it more toward him, he strikes a blow upon the farther edge, if to carry it farther from him, the blow is given upon the side that is nearer. These last strokes need to be given with great nicety. If feeble, they will fail to effect their purpose; if too great force, the tree will be severed from the stump upon that side, and then all control of it is lost at once, and it plunges blindly forward. A tall tree like the pine is broken from the stump by a force acting quite differently from that which is applied in the case of shorter trees. In its descent the pine acquires at its top a centrifugal force so powerful as to lift the tree from the stump and carry it forward five or six feet before it reaches the ground. When it does come to the earth the top and the butt strike at the same time, and the tree lies half buried in the snow.

BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of Dec., and for the first twelve months of the year—
MONTH ENDED 30TH NOV., 1893.

Timber (Hewn).	Quantity.	Value.
Russia.....	11,063	25,147
Sweden and Norway.....	39,448	61,056
Germany.....	22,870	53,889
United States.....	6,404	30,180
British India.....	1,231	10,660
British North America.....	24,056	114,830
Other Countries.....	40,937	53,533
Total.....	146,983	357,168

Timber (Sawn or Split, Planed or Dressed).	Quantity.	Value.
Russia.....	46,047	102,814
Sweden and Norway.....	74,179	178,048
British North America.....	62,808	169,078
Other Countries.....	16,230	51,413
Total.....	199,264	491,353

Staves, (all sizes).....	Quantity.	Value.
Mahogany (tons).....	2,018	17,877
Total of Hewn and Sawn.....	844,855	848,490

Timber (Hewn).	Quantity.	Value.
Russia.....	230,490	558,574
Sweden and Norway.....	630,041	994,857
Germany.....	350,243	890,125
United States.....	111,236	483,763
British India.....	41,531	387,710
British North America.....	336,184	1,603,073
Other Countries.....	392,831	525,560
Total.....	2,142,605	6,599,752

Timber (Sawn or Split, Planed or Dressed).	Quantity.	Value.
Russia.....	1,075,874	2,463,123
Sweden and Norway.....	1,717,072	3,848,487
British North America.....	1,181,008	3,010,218
Other Countries.....	339,881	1,085,705
Total.....	4,313,835	10,407,533

Staves (all sizes).....	Quantity.	Value.
Mahogany (tons).....	49,784	490,689
Total of Hewn and Sawn.....	6,466,238	16,007,285

SINGERS and public speakers are always benefited by using Down's Elixir, as it removes the hoarseness and increases the power of the voice. Take small doses often. Price, 25c, 50c, and \$1.00.

NARROW CHANCE OF ESCAPE.—A person exposed to the sudden changes of our northern climate has little chance of escaping from colds, sore throat, rheumatism, frost bites, and other troubles incident to change of temperature, to say nothing of accidents and emergencies. The best external and internal remedy is Hagar's Yellow Oil.

FOR SALE!

At OWEN SOUND,

Two Hundred Thousand Feet of Lumber,

Composed of about 50,000 clear, balance flooring, bill stuff (long), stocks, common.

Also, a stock mill-run, mill culls out, from **A Million to Million and a Half of Lumber, and Two Million Shingles**

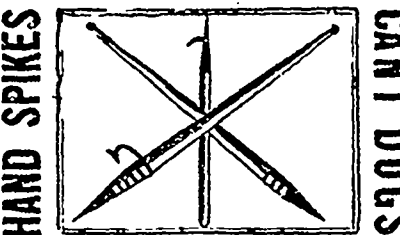
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APPLY, Canadian Locomotive & Engine Co., Limited, Kingston, Ont.

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ST. LAWRENCE CANALS

Notice to Contractors.

SEALED TENDERS, addressed to the undersigned and endorsed "Tender for St. Lawrence Canals," will be received at this office until the arrival of the eastern and western mails on TUESDAY, the 12th day of February next, for the construction of a lock and regulating weir for the deepening and enlargement of the upper entrance of the Cornwall Canal.

Also for the construction of a lock, together with the enlargement and deepening of the upper entrance of the Rapide Plat Canal, or middle division of the Williamsburg Canals, and the deepening, &c., of the channel at the upper entrance of the Galops Canal.

A map of the head or upper entrance of the Cornwall Canal and the upper entrance of the Rapide Plat Canal, together with plans and specifications of the respective works, can be seen at the Resident Engineer's office, Dickinson's Landing; and for the works at the head of the Galops Canal, at the Lock Keeper's house near the place, and in each case plans, &c., can be seen at this office on and after Tuesday, the 29th day of January, inst., where printed Forms of Tender can be obtained.

Contractors are hereby informed that trial pits have been sunk on the CORNWALL and RAPIDE PLAT sections of the works, and they are requested to bear in mind that tenders will not be considered unless made strictly in accordance with the printed forms, and be accompanied by a letter stating that the person or persons tendering have carefully examined the locality, and the nature of the material found in the trial pits, &c.

In the case of firms there must be attached the actual signature, the nature of the occupation, and residence of each member of the same; and further, a bank deposit receipt for the sum of \$40.00 must accompany the tender for the Cornwall Canal Works. The tender for the Rapide Plat works must be accompanied by a bank deposit receipt for the sum of \$5,000. The tenders for the deepening, &c., at the head of the Galops Canal must also be accompanied by a bank deposit receipt for the sum of \$5,000. The respective deposit receipts (cheques will not be accepted) must be endorsed over to the Hon. the Minister of Railways and Canals, and will be forfeited if the party tendering declines entering into contract for the works at the rates and on the terms stated in the offer submitted. The deposit receipts thus sent in will be returned to the respective parties whose tenders are not accepted.

This Department does not, however, bind itself to accept the lowest or any tender.

By order, A. P. BRADLEY, Secretary

Dept. of Railways and Canals, Ottawa, 21st January, 1894.

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THE UNDERSIGNED having largely extended their raceway at Lakefield, are desirous of corresponding with parties who wish to go into manufacturing, and they are prepared to sell or lease water power on the most favorable terms, or would erect buildings of any size suitable for factories.

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WITH OSCILLATING MOTION, ALSO,—

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In Good Order, which has been taken out of Mills that have been closed. Address,

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THE EWART LINK BELT.

We give our readers an admirable illustration of Ewart Detachable Link Belt as applied to live rollers and continuous conveyors in a saw-mill, operating with great ease and economy by automatic labor saving machinery from the saw log to the manufactured lumber, &c., and to the removal of the sawdust and other refuse. The cut and the references by figure and letter to the various details give so clear an idea of the mode of application that no long description is required. One great advantage which this link belt possesses is its adaptability for use in either wet or hot situations, where other belting would soon be destroyed. Even in other cases there is greater strength and less wear and tear, and there is less loss of power by friction. Its mechanical fitness for application to sawmill requirements is also obvious. It is made of refined malleable iron and is carefully tested to two-and-a-half times its calculated working strain.

The sole manufacturers of this belting in the Dominion, are the Waterloo Engine Works Company, of Bradford, Ontario, who will be happy to afford any further information on the subject to those who are contemplating the installation of these belts into their mills. They are already used in many leading establishments.

PLANTING AN OAK GROVE.

It is not such a difficult matter to raise an oak grove if one has the patience to wait for it. Oak trees will grow as readily from acorns as apple trees will from seed if only the precautions are observed. An immense fortune awaits the man who will not cut 100 acres to the white oak, and carefully attend to it for a series of years; for this kind of timber when small, is in constant demand by cooper, by railroads for ties when larger, and by wagon and agricultural implement manufacturers when grown. An acre of ground contains 43,650 feet of land. Planted to acorns in rows three feet apart and one foot in the row and it would give 14,536 trees to the acre, or 3,325,760 trees to the quarter section. Supposing now this amount was divided by two, to cover losses, and it leaves the respectable sum of 1,162,880 trees on the 100 acres. When of a suitable size, two thirds of the trees, or 775,000 might be cut for hop poles at, say \$6 per thousand, or over \$4,650,000. The remainder, 387,000, if allowed to grow until they were large enough for railroad ties, would be worth \$75,000 more, to say nothing of the balance for fire wood, which would be no inconsiderable sum. If a portion only of them were cut out and the balance allowed to grow into a forest of large trees, their value for timber would be a fortune to the happy possessor.

The above may seem visionary and probably to a large extent it is; but it is certain that if one has the patience to start the grove and will give it proper care, and an effort to bide his time for the trees to grow, that there is a fortune awaiting him. Some years ago we had a talk with a prominent railroad builder on this subject, and he declared it as his belief "that land could not be put to more profitable use than in growing a forest of oaks for railroad ties." Taking the poles, the fire wood and the ties together, it would not require a life time to wait for the beginning of an income. In the old world the planting of oak forests is a branch of governmental work. It has been found that the tree

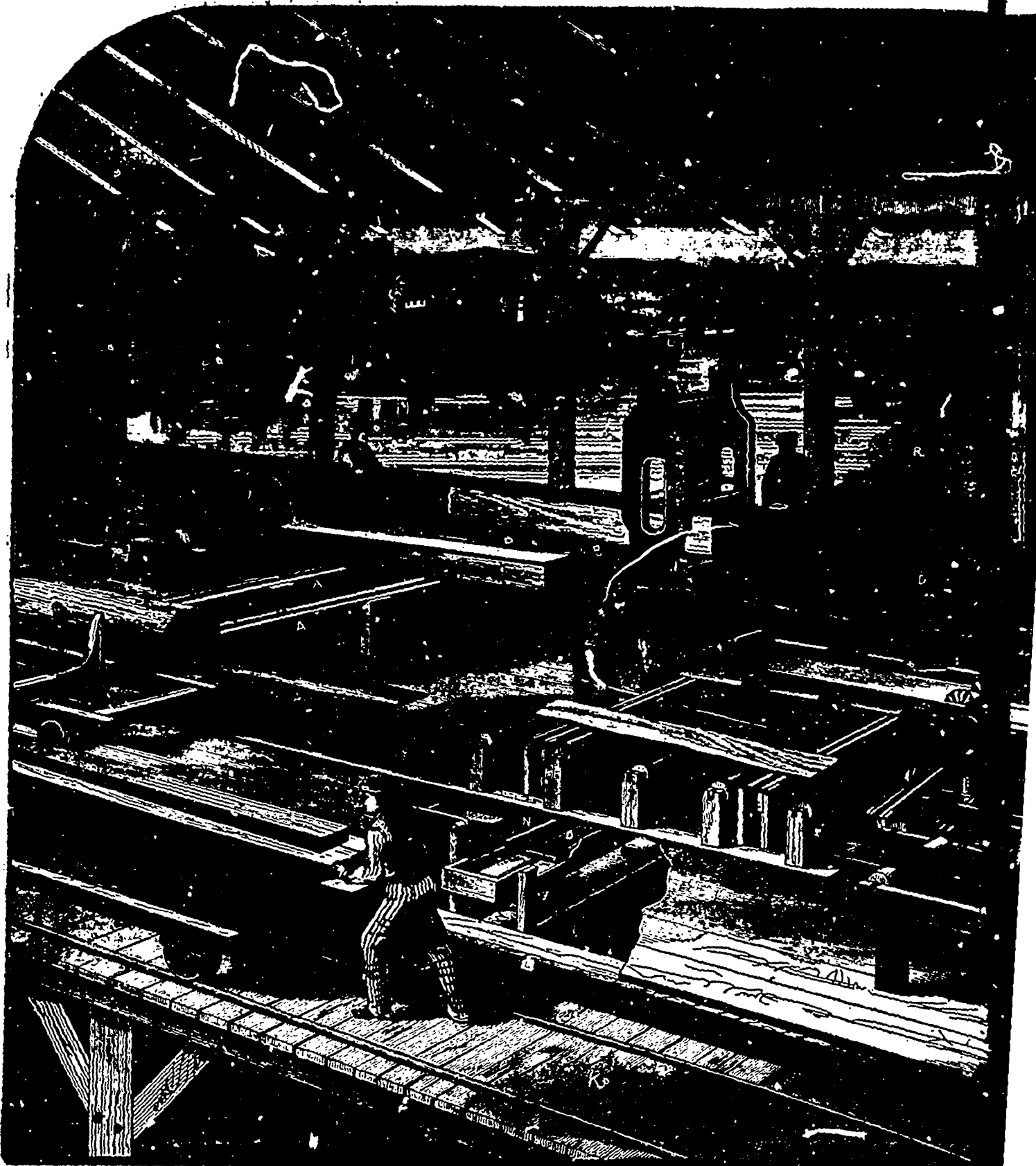
requires a deep and humid soil to come to its full development. If it be sandy with some clay mixed in, the better. The oak has a tap root which penetrates deeply in the sub-soil, and if the latter be hard the tree languishes and never attains much size. The soil should be at least three feet deep, and the richer it is and the faster the tree grows, the tougher and more valuable the timber. Hence, cultivation is of value in its propagation not only for promoting growth, but also for increasing its toughness and elasticity.

Should any of our readers be seized with a desire to carry out the suggestions here made, here are a few points that may be of value.

Gather the acorns in October, or at a time when they begin to fall of their own accord. Take them to a cool place to dry and rake over daily until the dampness is off. Whether it is better to plant in the fall or spring we cannot say, but either course is pursued. A little experimenting for a season would decide this. If kept over till spring, the following method is recommended by the foresters of France.

"Place in a dry spot in piles three feet high, cover a foot deep with dry leaves; over this a half a foot of dry moss, and over this a half a foot of long straw, capping the apex to keep out the water. Plant in the spring, and they will sprout without delay."

The young seedlings should not be disturbed the first year, as the tender rootlets are very sensitive, though of course the weeds must be kept down with the hoe. The second year they can be cultivated some, and the third year they can be cultivated some, and the third year they can be cultivated some. In regard to the time required to grow the trees we have no data. The oak will grow much faster, however, than one might imagine, if it be properly cultivated. We have on our grounds, in Minneapolis, nearly 100 young white, black and burr oaks, the bulk of them being of the first named variety. No data has ever been made regarding their growth, but trees that were not more than two or three inches through nine years ago are now some of



THE EWART LINK-BELT FOR IMPROV

- 1.—Haul-up Works for hauling logs to circular saw.
- 2.—Continuous running rolls for conveying slabs.
- 3.—Dead rolls for receiving outside slabs.
- 4.—Half rotary chais for moving slabs laterally to slab-cutting table.
- 5.—Slab-cutting table.
- 6.—Slab and refuse conveyer.
- 7.—Continuous running chains, for moving second or third-out slabs laterally to the edger rolls.

- 8.—Edger Rolls.
- 9.—Lath length cutting table.
- A.—Heavy chain trucks for moving the squared log to gang rolls.
- B.—Gang rolls.
- C.—Gang of saws.
- D.—Live rolls for conveying the boards from the gang to the trimmer table.

them six inches, and that, too, without any cultivation whatever. A clump of nearly 50 of them which made an open kind of shade at first, is now in summer time a thick grove, though which the sun can scarcely penetrate. At a rough guess, we should say that in ten years, with cultivation, the trees might be large enough to sell for hoop poles, while it might take fifteen more for them to be ready for railroad ties. A few acres might be set out each year for as long a period as the person experimenting wished to try it. Acorns can be found almost anywhere through southeastern Minnesota, but there are, perhaps, as fine large oaks in the vicinity of Albert Lea as any place,

where one could procure plenty of seed.—*Minneapolis Tribune.*

EVERYTHING AT SECOND-HAND.

"This business is fifty years old," said a New York dealer in second-hand material. "We occupy nearly 40 city lots. They are covered with second-hand building material. We can supply brick for interior walls, or granite columns for ornamental high stoops or porticos. It is already for use, and it is of known quality. We have thousands of feet of timber and lumber of various kinds. Every kind of lumber used in building a house can be found here, joists, studding, rafters, and roof boards. The

roof itself can be had too. Tin deteriorates some, but slates do not so much. We can supply a tin roof that is as good as it was the day it was laid. We have several cords of slates. Our lumber is better than new. It is thoroughly seasoned. We supply the lumber for about all the swell mansions. Every piece of timber in Vanderbilt's mansion came from this yard. When men put thousands of dollars into frescoes they want to be certain there will be no shrinking in the timber of their houses."

"You do not confine your attention to dwellings, do you?"
"Your question reminds me of a man from a

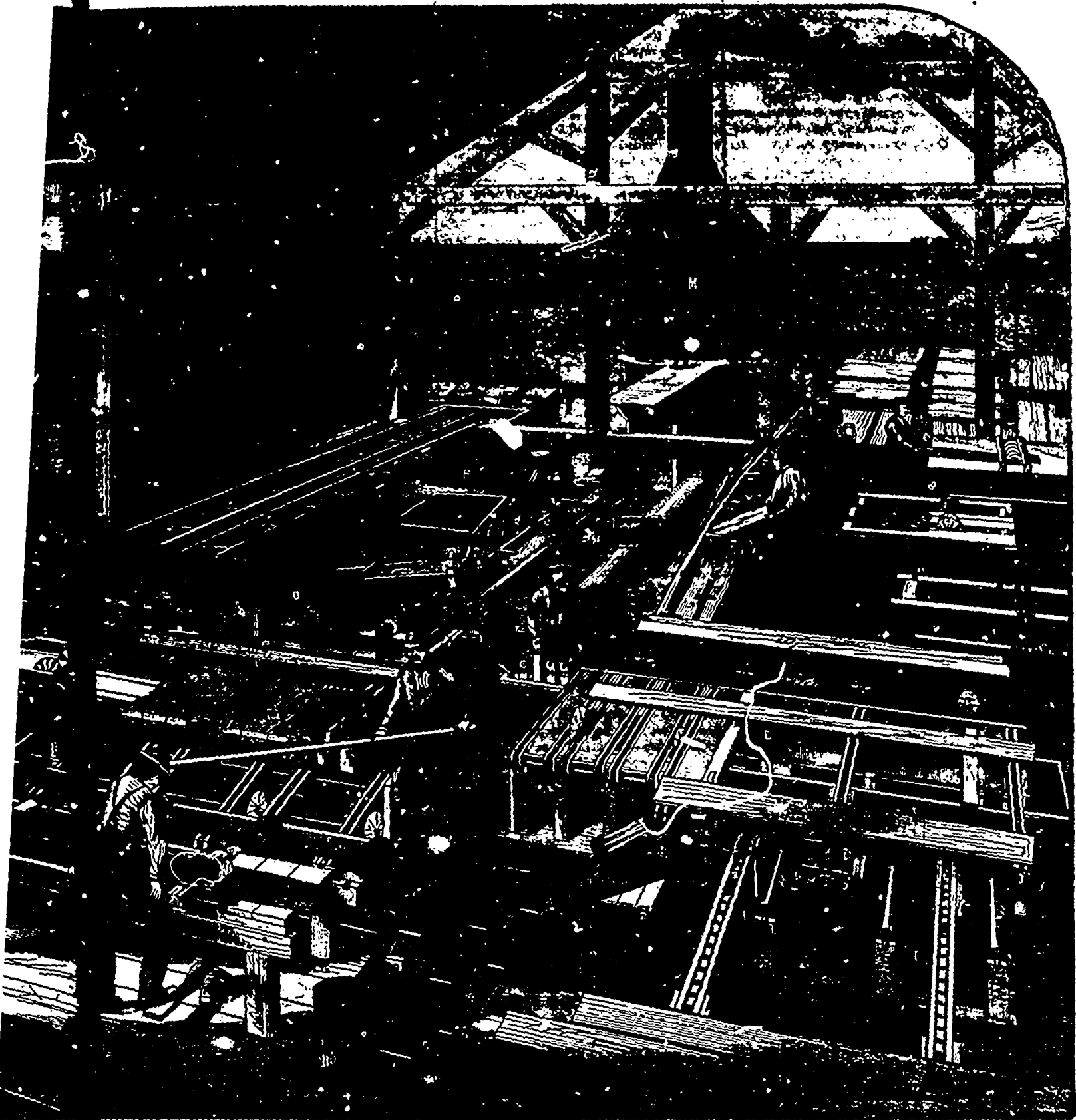
neighboring village who came here. He said he guessed he had got an order that it would puzzle us to fill. He wanted a second-hand pulpit. He was astonished when I showed him a complete outfit. We had stained glass windows, crosses, altars, candlesticks, rails, mourning benches, a sprinkling bowl and a baptistry. I showed him a full assortment of pews for the body of the church. Then I offered him a second hand stool with a bell complete, and all set up. He bought a pulpit and paid for it in silence. He was so astonished he couldn't talk. We have everything necessary to fit out either a mansion on 5th avenue or a shanty for a squatter sovereign; we just sold a pair of Italian marble mantels that probably cost \$500 each when new. They are as good now as then. You can almost see through them they are so clear, and the carving is exquisite. Then we have mantels in various kinds of colored marble, and two in Mexican onyx that are beautiful. Booth's Theater is now making its way here piecemeal. Here is a desk that was made in the time of Queen Elizabeth."

"How much of a business is it?"
"Ours is not the only yard. Last year we did \$25,000 worth of fire wood from the state, and the total sales amounted to a little more than \$200,000. We used to give the kindling wood away. Now it keeps a good many teams going especially in the winter. We have 317 men on the pay roll. Their pay is high. It takes a great skill to take one work out of a house as to put it in."
New York Sun.

A Swedish Match Factory.
At Jonkoping, Sweden, is the oldest and largest match factory in the world. It was established 107 years ago, and there are now to be seen specimens of the matches used at the beginning of the present century, consisting of big fagots of wood furnished with a handle and a tip to dip in a bath of sulphur. The wood from which the present kind of matches is made is taken from the adjacent forests, which are divided into fifty sections. Every year one section is cut and then replanted with young trees. The trees are hewed into planks in the forest and cut into slivers in the factory. The boxes are made of the outside of the trees. The factories are on the banks of the lakes which are connected with one another by wide canals. Millions of matches are turned out each day. Some idea of where they all go may be obtained from the statement that there are at least 280,000,000 of matches burned each day in the United States at an average of five matches for each person.

CHRISTMAS in England has interfered more with the dock deliveries than it did last year, for there was a smaller quantity by 278 standards of sawn and planed wood, and more than 900 loads short of new timber last week, as compared with Christmas week of 1882. Whether business was less brisk, or its followers a little more inclined to jollity, it is hard to say. But if the arrears are made up next week, or the week after, we shall be inclined to ascribe it to the latter cause, and that their holiday being over men have returned to their avocations with renewed energy and a determination to make up by close application to business the time they have lost.

SUBSCRIBE at once for the CANADA LUMBERMAN.



IMPROVING AND CONVEYING MACHINERY.

- E.—Trimmer table, for cutting off imperfect ends to requisite length.
- F.—Carriage for edged boards when ready for trimmer.
- H.—Rollers for receiving boards from trimmer.
- I.—Lateral chains for conveying boards to car.
- K.—Elevated track for board car.
- L.—Where barrel slabs and lath lengths are selected and taken from slab-conveyer.

- M.—Refuse burner.
- N.—Counter dust conveyer from circular saw, discharging sawdust into main conveyer.
- O.—Main sawdust conveyer, running to boilers.
- P.—Receptacle for refuse, bark, &c.
- R.—Appliances for loading logs from water on cars.

rimmer

Market Reports.

MONTREAL.

From Our Own Correspondent.

Jan. 25.—There is nothing new to report in the state of the market, which has been quiet and in favor of large buyers. Business on the whole has not been satisfactory either at home or abroad, and some are endeavoring to create the idea of their being a very considerable shortage in the manufacture this year. The imports by rail are coming to hand slowly, owing to heavy snow storms blocking up the roads. Laths are still scarce and retail lots bring our outside figure. We quote yard prices as follows:

Table listing lumber prices for Montreal, including Pine, Spruce, Hemlock, Oak, Walnut, Cherry, Butternut, Birch, Hard Maple, Lath, and Shingles.

CORDWOOD.

The demand, notwithstanding the continued very cold weather, has not been brisk. The higher rates of railway freight have not as yet affected prices, but it has had the effect of lessening the supplies. There is not much wood getting out at present as the roads in the country are blocked up with snow, and it is not expected that much will be done till a thaw comes, meantime our prices are firm but unchanged. We quote at the wharves or cartage:

Table listing cordwood prices for Long Maple, Short, Long Birch, Long Beech, and Tamarack.

LIVERPOOL MARKETS.

Our mail advices up to the 1st inst. call business quiet, but not more so than usual at this season. The stocks of Canadian lumber there on the 31st of Dec. were as follows:

Table showing lumber stock data for Liverpool, including quantities and values for various types of lumber.

TORONTO.

From Our Own Correspondent.

JAN. 23.—The long continued severe frost combined with a great depth of snow, prevents any attempt at building, so that trade is completely at a standstill. About twelve cars of lumber per day is all that has come into this city by rail during the past two weeks, and part of that intended for use on the harbour improvements going on. The large quantities of cordwood and slabs coming in serves in some measure, however, to keep the railway companies rolling stock partially employed. A few cars daily of last season's accumulation in the yards here are being worked off to western points, and if the railway companies would grant liberal rates from the mills to western points limited shipments might be made during the winter months. The N. & N. W. Company have offered some slight concessions from places where the water routes come into competition with them during the navigable season, but that is useless; lumber at such favorable points for shipment will remain there until the opening of the spring. Through their own cupidity they have lost this trade, and it will require much greater concessions than those now offered to regain control of that trade. Lumbermen feel much annoyed at the constant changes and innovations discriminating against their business here. Since the first of this year the G. T. R. Company assumed entire control of the Midland railway, and the first change made was to shift the agents office to a small hole and corner affair down at the Don, where it is highly dangerous to life and limb to attempt to go and

transact business, and for the fourth time during the last twelve months a fresh agent has been appointed; this seems to be a favorite plan of the company in question, just as soon as the agent has got to understand the wants of the lumberman and a cordial state of feeling existing between them the connection is suddenly severed. Lumbermen have been given to understand that Mr. White retains all the power he formerly held in the management of the Midland system, if this is the case they would like to see him and explain in person some of the grievances under which they labor, and if he has not the same control which he formerly held we fear his mantle has fallen on unworthy shoulders.

The N. & N. W. Railway Company have introduced another innovation, or, as they call it, fresh rules from the board. It has been the custom hitherto when any dealer had incurred the penalty of demurrage through the detention of a car from any cause whatsoever, to go to the local freight agent and place their plea before him, and if through stress of weather or other causes which often arise to prevent the prompt unloading of cars the agent used his own discretion in remitting the penalty, but now under the fresh rules it must be paid and the case presented before the board of directors for a judgment. O, ye Gods, picture to yourself the grave spectacle of a board of railway directors sitting in solemn conclave over the momentous question: Shall we split this two dollar bill, keeping one-half ourselves or as we have it in possession shall we keep the whole. The latter feeling I imagine most likely to predominate. It is now in fact got to be absolutely considered a rash act for a dealer to be guilty of winking if standing near one of his own cars of lumber, for fear any of the railway officials may notice him and construe it into an unwarranted act of jubilation at having got the better of the company in some shape on that particular car of lumber, but the day of retaliation is surely at hand; 1883 shows a falling off of nearly 20,000,000 feet from that of 1882, and that in a traffic which has hitherto given them over 40 per cent. of their total freight earnings. The time is coming rapidly when they will be glad to cultivate a trade which up to the present time they have burdened with heavy restrictions.

Table listing prices for Mill cull boards, Scantling and joist, and other lumber products.

OTTAWA.

From Our Own Correspondent. JAN. 24.—The lumbermen of the Ottawa valley are not carrying on such shantying operations this season as in the past four or five years. They have had a very favorable winter, but are afraid of next year's demand. There is a large quantity of square timber and logs in market at present, little of last year's cut having been disposed of during the past summer and fall. Very few new shanties have been opened on the tributaries. Labor is comparatively cheap, but the demand has been long ago satisfied. A prominent lumberman has informed your correspondent that the total cut this winter will not amount to much more than a half of that of last season. This will have the effect of bringing the market into a steady condition. Allan Grant, one of the prominent merchants, who took out seven rafts of square timber last year, will not have one this year. On the Kippewa limits the number of shanties

is not increased and a few are not in operation. Gilmour Bros. have two; A. Grant two; Booth & Gordon two; O. Latour one; D. Moore one; Sherman, Lord & Hurdman three; Edwards & Co. two; J. & B. Grier one; the latter is taking out square timber solely, and all the preceding ones are taking out logs and one or two square timber.

As regards the stock on hand in the yards here it is fast reducing, although yet pretty large. The demand is somewhat dull. Within the past year the facilities for shipping have increased to a large extent owing to the extension of the O. A. R. into the lumbering districts. Competition is keen between this Company and the O. P. R. on American shipments, and the rates have been reduced considerably. A large quantity of lumber is at present being shipped by rail. Next spring will witness a lively time between the boats and the railway companies in their competition for freight. The leading boating companies seem confident of securing their usual share, and even have added considerably to their fleets. They expect to compete successfully with the roads, and, furthermore, they claim they will be able to reduce the rates to such an extent as to make it unpleasant for the railway companies.

Within the past few years a large number of foreign dealers have appointed permanent representatives or agents here. The Sheppard Morse Co., of the United States, is about the largest buying firm here. The head officers of the Company arrived in the city to-day, and are negotiating for next year's stocks. Few measures affecting the lumber industry have been entered for consideration at the present session. In connection with the report of the Minister of Public Works, laid on the table a few days ago, there was an appendix to it submitted by the Chief Engineer of the Department, referring to the proposed improvements on the Upper Ottawa river in the interest of the lumbering trade of this district. The works asked for are of two different distinct objects. They are as follows:—

1. To increase the length of navigable waters above the confluence of the Mattawa, by placing a dam at the head of the Mountain Rapids, and thus to obliterate the Long Sault and create comparatively still water extending to the head of Lake Temiscamingue, a distance of say 90 miles, and for some miles as well up the Riviere Blanche, thus bringing navigation by steamers to a point within twelve miles of the U. P. R. at Mattawa.

2. To place a dam at the foot of Lake Temiscamingue for the purpose of raising the water in the lake to a certain height (to be hereafter determined) above its normal level, with the object of holding such water until the occurrence of the period when that in the Ottawa, at any point in its course to the Chaudiere Falls, has fallen so low as to impede or prevent the running of timber or logs, and then by the raising of the gates or opening of sluices, to permit the water or a portion of it so penned up to pass into the river, and thus to flush the logs and timber down the stream. The report from the engineer remarks upon the foregoing demand as follows:—"It may thus be seen that these two projects are antagonistic. If the dam were built at the Mountain Rapids for the purpose of navigation, then the river below for milling and rafting purposes would remain as it is at present, and no advantage would be derived by the mill owners at the Chaudiere. If the second proposal were carried out, then, as regards navigation, the river would remain as it now stands. I am not prepared, for the want of information—information to be obtained only after a most thorough and careful examination of the river from the Mountain Rapids to Ottawa, the cost of which would be not less than \$5,000—to offer an opinion as to the feasibility of the scheme for making Lake Temiscamingue reservoir for feeding the Ottawa during the periods of low water; neither can I estimate the cost of a dam at the Mountain Rapids, and its probable effects on the country at the foot of Lake Temiscamingue, without further and extended examination. Either of these projects would involve an expenditure, ranging from \$250,000 to \$300,000; for, as I believe it would be unwise to construct the works of wood, or any perishable material, they should

be built, if built at all, in a most solid and enduring manner so as to ensure their permanence and a minimum cost for annual repairs."

It is expected that next season all the mills hereabouts, will be lighted with the electric light. Messrs. Bronson and Weston, and Messrs. Perley and Pattee are at present having the necessary apparatus put in their mills. Mr. E. B. Eddy, the lumber king of 3 1/2, was a few days ago elected Mayor of that city. Mr. W. G. Perley, of the firm of Perley & Pattee, is at present in England, and has been there for a number of months. He is one of the principal directors of the Canada Atlantic Railway Co.

WINNIPEG.

The Winnipeg Commercial of Jan. 23, says: There is very little demand at present, nor is there likely to be any of much account until the revival of building operations in the spring. Quotations are as follows:

Table listing prices for Winnipeg, including Pine lumber, Sheathing, Timber, Dimensional lumber, and various boards.

ALBANY.

Quotations at the yards are as follows:—

Table listing prices for Albany, including Pine, Spruce, Hemlock, and other lumber products.

CHICAGO.

The Northwestern Lumberman says:—While business has been quite dull for the past week there is a slight improvement noticeable in the demand, and sales have been a trifle better than they were the preceding week, although as yet the improvement has not become altogether general, nor have the sales been large. With a very few exceptions the dealers report an increased demand from the country for estimates on bill, together with a few sales that denote the trade is not dead, and seem to promise a good business as soon as the weather grows milder. Dealers whose trade lies in the southern part of this state and in the south expect to have trade pick up within two or three weeks, when it will gradually creep northward as warm weather becomes general. All of the dealers

are exceedingly hopeful, and none of them will sell any bills at a sacrifice in order to reduce stock. Although business is very dull, buyers only taking what they absolutely need, there is an improvement in the western enquiry, especially in Kansas and Nebraska. Shipments are gradually growing larger. Still, the dullness in trade does not seem to affect prices. There is not severe cutting reported, and sellers don't appear to be at all anxious to force sales.

While the lumber business is always slow at this season of the year, this has been particularly the case this year, and the volume of business thus far this year has been fully one-third less than for the same period last year. That the market has not become demoralized and gone to pieces under the dull trade is by some dealers attributed to the fact that mill men carry over so many logs. In former years it was the habit to run day and night to cut up all the logs they could get, but of late they have preferred to carry over a portion of their logs rather than cut every thing and glut the market. Another element that tends to stiffen the market in spite of the low volume of business is the general belief that the balance of the winter will be a favorable one for dealers.

Receipts of lumber, shingles, etc., for the week ending Jan. 24, as reported by the Lumberman's Exchange:—

RECEIPTS.		Lumber.	Shingles.
1884.....	4,830,000	472,000	
1883.....	3,181,000	786,000	
FROM JANUARY 1, 1884, TO JANUARY 24, 1884, EXCLUSIVE.			
RECEIPTS.		Lumber.	Shingles.
1884.....	9,014,000	1,454,000	
1883.....	11,790,000	4,420,000	
Increase.....	2,770,000		2,966,000
Decrease.....			
STOCK ON HAND JAN. 1.			
	1884.	1883.	1882.
Lumber.....	655,348,661	655,013,520	560,410,642
Shingles.....	461,950,496	299,946,350	260,906,494
Lath.....	65,953,140	70,361,002	45,820,433
Pickets.....	1,522,257	3,093,990	3,784,178
Cedar posts.....	397,832	78,034	219,012

BOSTON.

Cotton, Wool and Iron of Jan. 26, says:— There has nothing developed to change the character of our previous report. The demand for all kinds is of a quiet and conservative nature at this between season period. At the same time, the prevailing tone is steady, with a fair prospect for the coming season. Quotations are for car-load lots.

CANADA PINE.

Selects, Dressed.....	\$48 00@50 00
Shelving, Dressed, 1st.....	40 00@42 00
2nd.....	33 00@35 00
Dressed Shippers.....	27 00@29 00
Dressed Box.....	18 00@20 00
Sheathing, 1st quality.....	42 00@45 00
2nd.....	34 00@35 00

BUFFALO.

We quote cargo lots:—

Uppers.....	\$46 00@48 00
Common.....	18 00@22 00
Culls.....	15 00@16 00

OSWEGO, N. Y.

From Our Own Correspondent.

The demand for lumber has been very quiet since our last report. There is no change in quotations; stocks are in excess of any year past, and the assortment is good; dealers are firm on prices and collections are well kept up. The margins have been very close the past year and not much money made.

Three uppers.....	\$45 00@46 00
Pickets.....	35 00@36 00
Fine, common.....	20 00@25 00
Common.....	14 00@17 00
Culls.....	11 00@15 00
Mill run lots.....	15 00@20 00
Sidings, selected, 1 inch.....	30 00@35 00
1 1/2 inch.....	30 00@36 00
Mill run, 1x10, 12 inch.....	18 00@20 00
selected.....	22 00@25 00
Shippers.....	14 00@17 00
Strip, 1 and 1 1/2 inch mill run.....	14 00@18 00
culls.....	10 00@13 00
1st selected for clapboards.....	32 00@35 00
Shingles, XXX, 18 inch, pine.....	4 00@ 4 50
XXX, 18 inch, cedar.....	3 25@ 3 50
ath.....	2 00@ 2 20

TONAWANDA.

CARGO LOTS—BAGINAW INSPECTION.

Three uppers.....	\$45 00@46 00
Common.....	18 00@24 00
Culls.....	12 00@14 00

LONDON.

The Timber Trades Journal of Jan. 12, says: There is no further movement in the trade here to chronicle, and the same state of quietude to which we have now got so accustomed still pervades the market. The foreign houses have not

as far as we can learn, made up their minds what the free-on-board prices are to be for the forthcoming season, and those we have consulted on this side in relation to this important question appear to think it will be some time yet before quotations are on the market, though we can hardly see how they can be much longer delayed. We gave our ideas of what the opening values for leading stocks will range at, and which, we think, will be found very near the mark. Anyway there is hardly any question but that the prices demanded this year for first open water will be under rather than over those put in the hands of buyers a year ago.

Messrs. Foy, Morgan, & Co., had a capital attendance at their sale on Wednesday, most of the London trade being present, and many provincial firms being represented also. The latter do not always figure as buyers, but their presence shows that the proceedings are not such a matter of indifference to them now as they used at one time to give out. The ties of sympathy between the prices at the Baltic salerooms and those of the outports are much closer now than they used to be ere steamers figured in the broker's freight lists.

Yellow pine appeared to be in request, but the lots offered were mostly short lengths. Spruce seemed in better odour, 3rd quality Rimouski going from £7 10s. to £8. By the time the flooring portion of the catalogue had been reached the room had thinned off considerably and bids were not so readily forthcoming; hence it was twenty minutes to four ere the last lot was knocked down.

LIVERPOOL.

The Timber Trades Journal of Jan. 12, says: There is little animation displayed in the market this week, and sales for the fulfilment of country orders have been somewhat restricted.

This is no matter of surprise, looking at the general unsatisfactory condition of trade, and especially so in this district, where the strikes in the northern parts of the country are in some degree interfering with the customary course of business. But, on the other hand, we have a moderate amount of building in progress, which has not been materially interfered with by the state of the weather so far, and these operations will tend to keep the trade moving.

The import of timber continues small, and with a continuance of the present mild weather there should be no impediment to the prosecution of building operations, and this should cause a steady drain upon the market for all building materials.

On Wednesday Messrs. Farnworth & Jardine offered a parcel of Bangkok teak planks for sale, but failed to elicit a bid for them, and afterwards Messrs. Alfred Dobell & Co. offered the cargo per Glen Grant, from Apalachicola, consisting of about 39,000 cubic feet of hewn timber and 1,435 feet of sawn planks. The cargo sold fairly well upon its merits, and was almost entirely taken by the local trade.

SENDERLAND.

The Timber Trades Journal of Jan. 12, says: The holidays have at last passed, and business will again run in its old groove. The present mild weather enables outdoor work of all kinds to be pushed, and in the building trade unusual activity is shown.

Importations during the week are only poor, viz., a steamer from Fredrikshald with 600 loads props, for Rayner & Moller, and a cargo of oak timber, 250 loads, from Stettin for Short Bros. A Quebec cargo of 600 loads oak, elm, ash, white and red pine timber, and a quantity of deals, arrived during the New Year holidays, and only commenced discharging on Tuesday last. The cargo is for market, and as part of it is going into crafts for Hartlepool, we presume the Liverpool house, who have the matter in hand, are dividing the cargo.

GLASGOW.

The Timber Trades Journal of Jan. 12, says: There have been few arrivals of wood goods at Clyde ports during the past week—say altogether about 2,000 loads. Business has hardly yet resumed its ordinary flow since the New Year holidays. There are no public sales to report at this time, but two are announced to



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25 BALL and 5 HEEL to Set

The Calks are now used by all the principal Drivers in Maine and New Brunswick.

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Oak, Ash, Cherry, Black Walnut, Poplar, Butternut

And all other Kinds of HARDWOOD LUMBER.

White and Yellow Pine Lumber and Timber.

Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally.

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As I carry the LARGEST and BEST assorted Stock of OILS in the Dominion, I am prepared to fill all orders Promptly and at

LOWEST MARKET PRICES.

take place here next week, results of which will be duly forwarded. The wages question has been settled in a conciliatory spirit in the ship-building yards in the upper reaches of the river, but at Dunbarton several hundred men are thrown idle, the laborers in a shipyard there having resisted the reduction of ten per cent, the ironworks remaining also at a standstill. In the steel trade, also, the masters seem bent on adhering to the proposed reduction. Questions affecting the prosperity of Clyde ship-building are, of course, of great interest to the timber trade here, which has in that industry its most important interests.

GOLD for the working class. Send 10 cents for postage, and we will mail you free, a royal, valuable box of sample goods that will put you in the way of making more money in a few days than you ever thought possible at any business. Capital not required. We will assist you. You can work all the time or in spare time only. The work is universally adapted to both sexes, young and old. You can easily earn from 50 cents to \$5 every evening. That all who want work may test the business, we make this unparalleled offer, to all who are not well satisfied we will send \$1 to pay for the trouble of writing us. Full particulars, directions, etc., sent free. Fortunes will be made by those who give their whole time to the work. Great success absolutely sure. Don't delay. Start now. Address **STRAW & Co., Augusta, Maine.**

TIMBER FOR RAILWAYS.

When the charter of the Northern Pacific railroad was granted, the company was given the privilege of cutting such timber as was needed in construction on lands "adjacent" to the line. As the work progressed through timberless regions, the contractors, under the color of this tree cutting privilege, in some instances went 100 miles away from the line to obtain timber, construing the word "adjacent" to mean anywhere on Uncle Sam's domain that timber was to be found that could be rafted to the railroad. There has been some kicking against this free range of the forests in eastern Washington, and, through the instigation of local interests, probably, the United States began suit against the company for the recovery of \$70,000 stumpage value in Yakima county. The case was tried before Judge Hoyt, of the second judicial district, at Olympia. The decision of the court was in favor of the defendant company. The text of the decision recited that the word "adjacent" had a broader sense than the word "adjoining," and could be stretched, like the elastic skin of the man at the dime museum, to cover even a hundred miles. If this decision holds in the higher courts, it follows that lands adjacent to a land grant railroad company may cover unlimited territory.—*Northwestern Lumberman.*

ST. JOHN LUMBER EXPORT.

The *Monetary Times* says:—As has already been stated, the prospect for the lumber trade is not favorable, and one may be prepared to hear of operations upon a reduced scale everywhere. At St. John we are told there is held over about 35,000,000 feet, while last year the stock there amounted to about 53,000,000 feet. Through out New Brunswick the stock is about two-thirds of what it was in January, 1883. A reduction of fully forty-five per cent. has been made, too, in the lumbering operations there this season. In the year 1883 St. John shipped to Europe, Africa, and Australia 181,518,132 superficial feet of deals and ends, a large quantity, but, says the *Telegraph*, considerably below every year in the last ten years, excepting 1875 and 1879. The shipments during the first three quarters of the year were heavy, but since the unfavorable turn in the wood market in England they have been largely reduced.

The following statement shows the quantity exported and the ports to which the cargoes were sent:—

Ports.	Vessels.	Tons.	Deals, etc. S. Ft.
Africa, 1883	10	5,649	5,319,725
do, 1882	2	2,078	1,991,116
Australia, 1883	2	2,333	1,877,974
do, 1882	3	3,404	1,902,080
Barrow, 1883	4	2,693	2,645,930
do, 1882	10	8,907	7,891,134
Bristol Ch. 1883	35	26,676	25,252,035
do, 1882	46	32,364	31,343,063
Continent 1883	27	19,723	18,321,454
do, 1882	26	18,646	16,784,469
Ireland 1883	91	45,909	43,478,095
do, 1882	78	42,362	39,223,422
Liverpool 1883	74	31,001	67,713,949
do, 1882	94	102,036	84,542,341
London 1883	6	6,891	5,329,409
do, 1882	8	6,829	6,495,159
Scotland 1883	8	7,393	6,799,256
do, 1882	8	7,635	6,603,712
Wales 1883	3	3,451	1,645,803
do, 1882	4	2,006	611,057
Total 1883	270	205,311	181,518,132
do, 1882	234	231,379	201,413,217

Ten cargoes were sent to Africa, where two only were sent in 1882, and none in 1881 or 1880. Liverpool, of course, continues to be the centre of the trade—67,000,000 feet being sent there.

The chief shipper of sawn woods continues to be Gibson, of Nashwaak, whose shipments, though 10,000,000 feet less than in 1882, were 19,000,000 feet more than in 1881, and 24,000,000 feet more than in 1880. He despatched 118 vessels, of 105,491 tons. Other large shippers were R. A. & J. Stewart, W. M. MacKay, Guy, Bevan & Co., S. Schofield, Clinch & Sons, Knight & Co.

The square timber trade of that port shows figures rather ahead of the previous year, 3,883 tons of pine and 11,950 tons of birch having been exported, compared with 3,332 tons of pine and 7,576 tons of birch in 1882. As exporters in this department of trade, the names of

Scammell, Bros. and McLachlan & Wilson require to be added to those mentioned above. The square goods all went to the United Kingdom except 159 tons birch to the Continent of Europe. We take some extracts from a statement given of the shipments from St. John for the last thirty years:—

Year.	Tonnage.	Deals, etc. S. feet.	Pine. Tons.	Birch. Tons.
1864	256,402	148,709,592	71,226	8,483
1865	225,621	123,634,637	77,441	10,876
1866	211,794	146,376,001	29,422	9,009
1867	209,602	159,637,724	17,294	9,437
1870	183,029	148,971,221	3,472	7,995
1875	202,813	171,137,284	748	6,953
1877	252,171	216,173,920	1,191	13,043
1880	252,058	210,012,240	2,834	16,832
1881	255,785	210,231,730	1,642	5,168
1882	251,370	201,413,717	3,332	7,576
1883	205,311	181,518,132	3,883	11,950

The *Telegraph* also gives the shipments from the principal ports of the Province of New Brunswick:—

Year.	Vessels.	Tons.	Deals. S. feet.
1882	31	13,165	12,495,000
1883	23	10,329	9,624,000

Year.	Vessels.	Tons.	Deals. S. feet.
1882	33	20,242	17,412,506
1883	52	27,483	23,415,007

Year.	Vessels.	Tons.	Deals. S. feet.
1882	10	3,023	4,031,000
1883	3	1,379	1,350,000

Year.	Vessels.	Tons.	Deals. S. feet.
1882	33	20,242	15,552,523
1883	44	20,347	18,726,737

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"The total shipment of deals from all the ports given above amounted in 1883 to 401,237,676 superficial feet, compared with 381,990,174 feet in 1882. The shipments from the ports from which we have no returns would not alter these figures very much, and our statement shows pretty nearly the total deal shipments from New Brunswick."

NEW BRUNSWICK.

For several years past there appears to have been a gradual falling off in the deal shipment of New Brunswick. The pine timber trade has declined to next to nothing although the exports of birch timber slightly increased during the past year. The export of pine from the port of St. John has fallen from 77,441 tons in 1865 to 3,833 tons in 1883, while in 1875 it only amounted to 748 tons. The shipment of birch timber, although showing a small increase over 1882, was light, the total shipment only reaching 11,950 tons last year against 7,576 tons in 1881. The smallest shipment of deals made during the past thirty years was in 1858 when only 123,638,363 feet were exported, while the largest shipment made during that period was in 1877 when it reached 215,183,920 feet. Although the greater part of the deal and timber exports of New Brunswick goes to Europe, over 7,000,000 feet of deals were shipped to Australia and Africa from St. John last year. There appears to be a large decrease in the quantity of deals being carried over at the latter port this winter as compared with last year; the figures being 53,000,000 feet held over during the winter of 1882 against 35,000,000 at present held. The total shipment of deals from the province during last year, from all parts, will probably reach 410,000,000 against 353,000,000 feet exported during 1882.

FOR A HARD COULD, with pain in the head, bones or through the chest, take Down's Elixir at once, and in liberal doses, cover up well in bed, and your recovery will soon be well.

TIMELY AID.—A little daughter of the Captain of the Steamer "Empress of India" was suddenly ill with Croup while at a friend's house in Toronto. No medical aid being handy, recourse was had to Haggard's Yellow Oil; this popular household remedy afforded prompt relief and the little girl was as lively as ever in a few hours.



THOS. GRAHAM & Co.,
File Manufacturers
ETC.,
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TORONTO.

FILES FOR SALE. FILES RE-JUT

F. E. DIXON & CO.

MANUFACTURERS OF



70 King Street East, Toronto.

SPECIALTY:—Belting made from J. B. HOYT & Co's American Oak Tanned Leather.

Send for Price List and Discounts.

EAGLE FOUNDRY!

GEORGE BRUSH

14 to 34 King and Queen Sts, MONTREAL,

MAKER OF

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

CIRCULAR SAW MILLS, BARK MILLS, SHINGLE MILLS,

Water Wheels, Mill Gearing, Shafting, Hangers and Pullies, Hand and Power Hoists for Warehouses &c., &c.

Also, Sole Manufacturer of BLAKE'S CHALLENGE STONE BREAKER.

AND AGENT FOR

13121

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

EXTRA HEAVY AMERICAN

Oak Tanned Leather Belting.

RUBBER BELTING, RUBBER PACKING, RUBBER HOSE, LINEN HOSE and COTTON HOSE.

A Full and Complete Stock always kept on hand. WRITE FOR PRICES and DISCOUNTS.

We have the Largest and best equipped RUBBER FACTORY in the world for the manufacture of VULCANIZED INDIA RUBBER GOODS for Mechanical Purposes.

Our trade here has increased to such an enormous extent that in order to keep up with the demands, we have purchased from Major John Gray, M.P.P., Parkdale, the plot of ground situated on West Lodge Avenue, adjoining the Credit Valley, Toronto, Grey and Bruce, Northern and Grand Trunk Railways, for the erection thereon of a BRANCH RUBBER FACTORY, works to be in full operation January 1st, 1884.

THE GUTTA PERCHA AND RUBBER MANUFACTURING CO.

T. McILROY JR.

WAREHOUSE:—10 and 12 King Street East,

P.O. BOX 556.

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TORONTO.

The Improved CLIMAX Sash Lock

MANUFACTURED BY MILLER BROS., GUELPH.

Holds the Sash in any position so that it cannot be moved either up or down, can be put on by anyone, only requiring two screws.

AGENTS FOR CANADA:—

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HUGH GIBSON,

MANUFACTURER OF,

KNIGHT'S PATENT "EXCELSIOR"

SAW MILL DOGS

The Sawyer's Favorite

For Holding Logs upon a Saw Mill Carriage while being Sawed into Lumber.

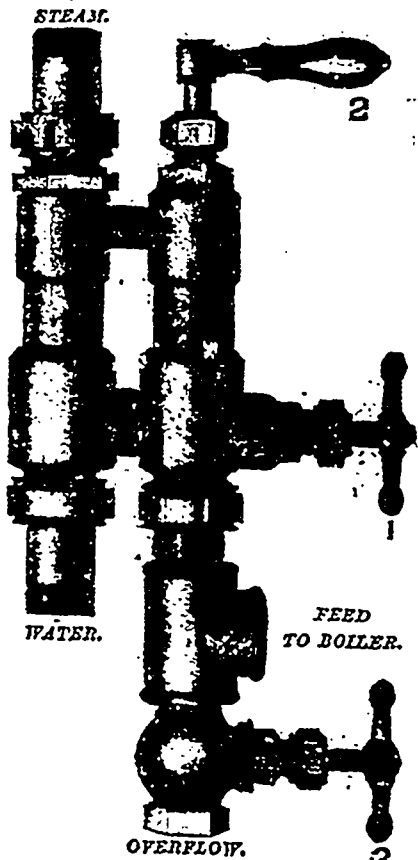
MISSISSIPPI, June 7th, 1883.
HUGH GIBSON, ESQ.—Your Patent Excelsior Mill Dogs give entire satisfaction, and is certainly up to your recommendation. They are the best Mill Dog in the market. I am very much pleased with them.

Yours Respectfully,
PETER McLARREN.

BERKELEY, April 20th, 1883.
HUGH GIBSON, Sir.—The Dogs I bought of you give satisfaction. They beat any Dog that I ever saw for ripping or edging lumber on carriages. They are just the thing for scantling. I would not take \$50 for them to-day and have to wait for another pair to come from you, because I believe they make two dollars a day for me.

Yours truly,
GEO. S. BROWN, Jr.

Manufactured by HUGH GIBSON, CHATHAM. EXCELSIOR DOG.



THE Hancock Inspirator

The Best Feeder known for Stationary, Marine or Locomotive Boilers.

THE INJECTOR PERFECTED!

All Sizes lift water 25 feet. No adjustment required for varying Steam Pressures.

Over 50,000 Now in Use.

MANUFACTURED BY THE
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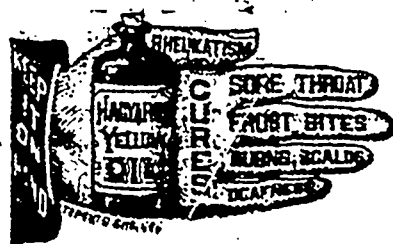
5 CUSTOM HOUSE SQUARE,
MONTREAL, P.Q., CANADA.

Manufacturers of Inspirators, Injectors, and General Jet Apparatus.

HENDERSON BROS. LUMBER AND TIMBER.

Building & Bridge Timber Sawed to Order. Pine, Spruce and Hemlock Lumber by the Cargo.

Steam Saw Mills, Box Factory and Yards—342 to 350 William St., and 130 St. Constant St., Montreal. Steam Saw Mills, L'Assomption, P.Q. P. O. Box 804.



MONTREAL AXE WORKS

MOCOCK & SON

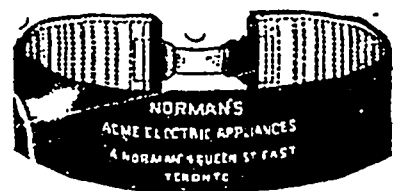
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AXES and EDGE TOOLS

OF EVERY DESCRIPTION.

Old and Reliable, the Best Axes made in Canada.



Established 1874.

Established 1874.

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RELIEVE AND CURE

Spinal Complaints, General and Nervous Debility, Nervousness, Rheumatism, Gout, Liver, Kidney, Lung, Throat and Chest Complaints, Neuralgia, Bronchitis, Incipient Paralysis, Asthma, Sciatica, Sprains, Consumption, Sleeplessness, Colds and 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.—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,
G. L. TILLEY, WATERVILLE, N.B.

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.

NORMAN'S ELECTRO CURATIVE TRUSS is the best in the world. Guaranteed to hold and be comfortable. Circular free. N.B.—Trusses for Rupture, best in America, and Electric Batteries always on hand at reasonable prices.

THE TRADE

Will always find a Large Stock of

SHANTY BLANKETS

In every Size and Weight, and

HORSE BLANKETS

AT LOWEST MILL PRICES.

JOHN MACDONALD & Co. TORONTO.

A Magnificent Line of All Wool Fawn Blankets.

SAMPLE ORDER WILL HAVE OUR BEST ATTENTION.

FATE OF FIVE LUMBERMEN.

Two years ago, says a Corning dispatch, five young men came from the woods of Maine, where they followed the occupation of choppers, and found employment in the lumber regions of Pennsylvania, in the vicinity of Malley's mills. They were George and William Jennings, brothers; Arthur Fraley, Andrew Shalcross, and Hiram Stephens. The first week they were in the region George Jennings was "snaking" logs to a roll way. As he was engaged in fastening a chain around a large log, standing on the lower side of it as it lay on the top of a small hill it was started in some manner, and before he could get out of the way it knocked him down and rolling over him,

CRUSHED HIM TO DEATH.

His father had been killed in a similar manner in Maine. A few months afterwards, Arthur Fraley and William Jennings were hunting in the woods near Malley's mills. They had shot a deer, and after loading their guns, had walked up to where the deer lay. Fraley stooped down beside the deer and Jennings stood behind him. While they were in these positions Jennings saw a fawn come leaping along the edge of the ridge close by them. He quickly cocked his gun. The click of the hammer caused Fraley to look up. Seeing the fawn he rose quickly to his feet. Jennings gun was discharged at the same instant, and the ball passed clear through Fraley's head killing him instantly. A few weeks later Jennings was engaged with others in driving logs, and while he was breaking a jam the jam gave way unexpectedly, and he was carried down with it and crushed to death. After William Jennings' death Andrew Shalcross declared that he could not remain in such an apparently fatal spot and he obtained work in Potter County. Last week the news was received that he had been killed by a falling tree. Hiram Stephens was now

THE ONLY ONE ALIVE

of the five young lumbermen who had come together to Pennsylvania. He had remained at Malley's mills. Last week when he heard of Shalcross' death he resolved to return to Maine. He had agreed to work at the mills until the 1st of February, and as his employer would not release him before that time he made his arrangements to go when the time expired. Two weeks ago a young man named George Gough went to Malley's mills to work as a teamster. On Monday last there was but little for the teams to do, and as one of the choppers was sick Gough was sent to the woods to chop. He and Hiram Stephens went together. They were to work on a job about three miles from the mills. Gough was a green hand at chopping, and until about three o'clock in the afternoon he simply trimmed the branches from the trees that Stephens felled. Stephens had just felled a tree, and expected to rough that he held his hand at one. Gough selected a medium sized tree near by and began chopping. Stephens proceeded to trim the one that he had felled, and paid no attention to Gough's work. After a while he heard Gough shout to him to run, as the tree would fall in such a way as to strike him with a branch. Stephens started carrying his axe in front of him. He had taken but a

few steps when he stumbled and fell. Gough was giving the last strokes on the tree with his axe, and seeing that Stephens did not rise after falling he ran to his aid, forgetting the danger from the tree. Before he reached Stephens

THE TREE FELL WITH A CRASH,

and Gough was caught beneath the very branch against which he had warned his companion. He was pinned on his back to the ground, the limb lying across his legs. No part of the tree touched Stephens, although Gough did not lie six feet from him. When the tree fell Stephens raised his head and saw Gough lying beneath the branch. He rose to his feet and then Gough saw the blood was pouring in a great stream from a fearful wound in Stephens' stomach. He had fallen on the upturned blade of his keen axe. Stephens staggered towards his companion, and, although it was evident that he was dying, began chopping at the limb with the intention of releasing Gough if possible. He gave a few feeble and random blows, and then, turning to Gough, he laid the axe within his reach, and said:

"I'm done for George! You'll have to cut yourself out."

He then staggered off a few feet and fell to the ground dead. After long and difficult labor Gough succeeded in cutting the limb in two with Stephens' axe and in pushing off his leg that portion of it that held him fast. Then for the first time he knew that one of his legs was broken. There is a cabin, occupied at night by a number of choppers, about a mile from where Gough lay, and as night was coming on and little hope of any one passing that way, and none that he could survive a night spent prostrate on the snow, he determined to drag himself through the woods to the cabin. When the choppers came into the cabin about six o'clock they found Gough lying unconscious on the floor. His fingers were torn and bleeding and his clothes torn. Such restoratives as were at hand served to revive Gough, and he was soon enabled to tell of his terrible experiences of the afternoon, and the awful fate of young Stephens. Gough's fingers were torn to the bone by clutching in the snow and on bushes to drag himself along to the cabin. He was taken at once to Malley's mills, and he will doubtless recover. Stephens' dead body was found by a party of choppers who went in search of it, and will be buried at Malley's mills.

On Thirty Days Trial.

The Voltaic Belt Co., Marshall, Mich., will send Dr. Dye's Celebrated Electro-Voltaic Belts and Electric Appliances on trial for thirty days to men (young or old) who are afflicted with nervous debility, lost vitality and kindred troubles, guaranteeing speedy and complete restoration of health and manly vigor. Address as above. - N. B. No risk is incurred, as thirty days' trial is allowed.

AN IMPORTANT INQUIRY.—Are you threatened with Consumption? If so, the cause may be in the blood. Impure blood and Scrofula are close companions, and Scrofula and Consumption are still closer related. Burdock Blood Bitters cure all forms of Scrofula by cleansing the blood and regulating the secretions.

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Dec. 31st, 1882 and 1883, and also the Consumption for the month of Dec. 1882 and 1883:—

	Stock, Dec. 31st, 1882.	Stock, Dec. 31st, 1883.	Consumption for the month of Dec., 1882.	Consumption for the month of Dec., 1883.
Quebec Square Pine.....	292,000 ft.	450,000 ft.	190,000 ft.	250,000 ft.
" Waney Board.....	275,000 "	340,000 "	"	"
St. John Pine.....	51,000 "	50,000 "	20,000 "	24,000 "
Other Ports Pine.....	68,000 "	90,000 "	0,000 "	4,000 "
Red Pine.....	68,000 "	00,000 "	0,000 "	4,000 "
Pitch Pine, new.....	629,000 "	305,000 "	39,000 "	54,000 "
" Sawn.....	606,000 "	630,000 "	55,000 "	123,000 "
Planks.....	00,000 "	000,000 "	00,000 "	00,000 "
Dantale, &c. Fir.....	59,000 "	135,000 "	11,000 "	10,000 "
Sweeten and Norway Fir.....	21,000 "	81,000 "	00,000 "	29,000 "
Oak Canadian and American.....	339,000 "	330,000 "	40,000 "	44,000 "
" Planks.....	104,000 "	182,000 "	34,000 "	34,000 "
" Raille.....	40,000 "	18,000 "	3,000 "	3,000 "
Elm.....	61,000 "	22,000 "	13,000 "	4,000 "
Ash.....	13,000 "	24,000 "	8,000 "	4,000 "
Birch.....	102,000 "	91,000 "	53,000 "	63,000 "
East India Teak.....	13,000 "	49,000 "	7,000 "	9,000 "
Greenheart.....	132,000 "	109,000 "	6,000 "	3,000 "
N. B. & N. S. Spruce Deals.....	21,884 stds	22,626 stds	0,602 stds	5,681 stds
" Pine.....	530 "	1,376 "	"	"
Quebec Pine & Spruce Deals.....	3,432 "	8,450 "	1,343 "	2,079 "
Baltic Red Deals, &c.....	494 "	5,005 "	163 "	200 "
Baltic Boards.....	4,400 "	105 "	608 "	163 "
" prepared Flooring.....	2,367 "	3,961 "	692 "	121 "



(ESTABLISHED 1852.)

CURRIE BOILER WORKS

MANUFACTURERS OF

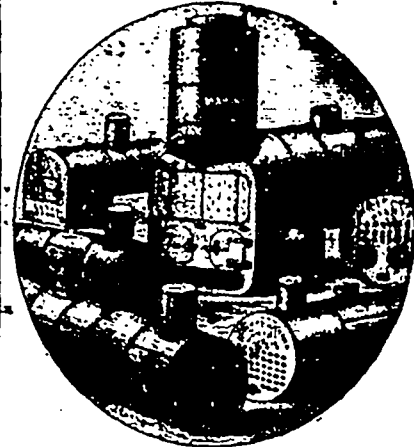
Steam Boilers

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

CURRIE, MARTIN & Co. Esplanade, Foot of Frederick Street, TORONTO.

JOHN MCGREGOR & SONS

Manufacturers of all kinds of STATIONARY, MARINE and LOCOMOTIVE



BOILERS

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SECOND-HAND MACHINERY Bought, Sold or taken in exchange for new work. PROMPTLY ATTENDED TO. All Boilers Tested by cold water pressure to 150 pounds to the square inch.

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BEST AND CHEAPEST
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Stands for in advance of any other Canadian Paper. \$1 a year.
It has the Largest Circulation, the Latest News, both Local and Foreign. A Splendid Story Page. First-class Agricultural Page. Reliable Market Reports. Legal Column. Household Department, Children's Department, etc.
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WILL CURE OR RELIEVE.
BILIOUSNESS, DIZZINESS, DYSPEPSIA, DROPSY, INDIGESTION, FLUTTERING OF THE HEART, JAUNDICE, ACIDITY OF THE STOMACH, ERYSIPELAS, THE STOMACH, SALT RHEUM, DRYNESS OF THE SKIN, HEADACHE, OF THE SKIN,
And every species of diseases arising from disordered LIVER, KIDNEYS, STOMACH, BOWELS OR BLOOD.
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A PRIZE Send six cents for postage, and receive free, a costly box of goods which will help you to more money right away than anything else in this world. All, of either sex, from first hour. The broad road to fortune opens before the workers, absolutely sure. Address **Tax & Co**, Augusta, Maine

THE MAIL
WHO IS UNACQUAINTED WITH THE GEOGRAPHY OF THIS COUNTRY WILL BE BENEFITED BY EXAMINING THIS MAP THAT IT GIVES
CHICAGO, ROCK ISLAND & PACIFIC RY
By the central position of its line, connects the East and the West by the shortest route, and carries passengers, without charge of care, between Chicago and Kansas City, Council Bluffs, Leavenworth, Atchison, Minneapolis and St. Paul. It connects in Union Depots with all the principal lines of road between the Atlantic and the Pacific Ocean. Its equipment is unrivaled and magnificent, being composed of Most Comfortable and Beautiful Day Coaches, Magnificent Horton Reclining Chair Cars, Pullman's Finest Palace Sleeping Cars, and the Best Line of Dining Cars in the World. Three Trains between Chicago and Missouri River Points. Two Trains between Chicago and Minneapolis and St. Paul, via the Famous "ALBERT LEA ROUTE."
A New and Direct Line, via Genoa and Kankakee, has recently been opened between Richmond, Norfolk, Newport News, Chattanooga, Atlanta, Augusta, Nashville, Louisville, Lexington, Cincinnati, Indianapolis and Lafayette, and Omaha, Minneapolis and St. Paul and intermediate points.
All Through Passengers Travel on Fast Express Trains.
Tickets for sale at all principal Ticket Offices in the United States and Canada.
Baggage checked through and rates of fare all ways as low as competitors that offer less advantages.
For detailed information, get the Maps and Fold-ers of the
GREAT ROCK ISLAND ROUTE,
At your nearest Ticket Office, or address
R. R. OGLE, E. ST. JOHN,
Vice-Pres. & Gen'l Mgr. Chic. & Pac. R.R. CHICAGO.

N. H. DOWNS' VEGETABLE BALSAM
ELIXIR
Has stood the test for FIFTY-THREE YEARS, and has proved itself the best remedy known for the cure of **Consumption Coughs, Colds, Whooping Cough and all Lung Diseases** in young or old. SOLD EVERYWHERE.
Price 25c. and \$1.00 per Bottle.
DOWNS' ELIXIR

The William Hamilton Manufacturing Co'y

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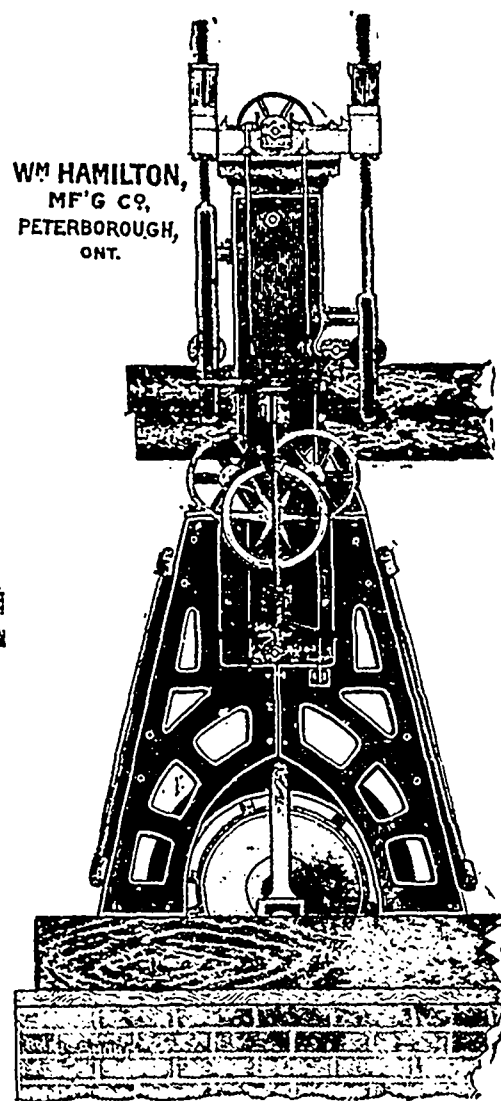
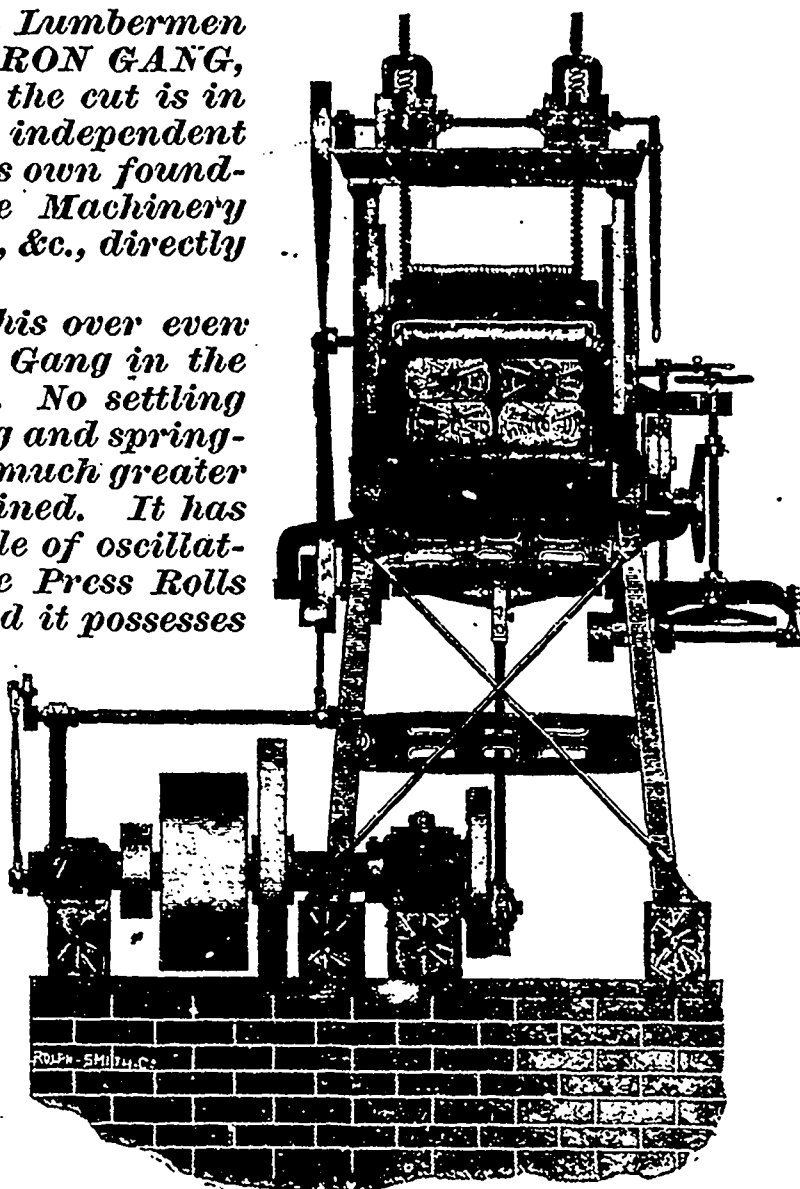
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Saw Mills and General Machinery

PETERBOROUGH, - - - ONTARIO.

We introduce to the Lumbermen of Canada our New IRON GANG, which will be seen by the cut is in itself a complete and independent Machine, resting on its own foundations, having all the Machinery for operating, feeding, &c., directly attached.

The advantage of this over even a well built ordinary Gang in the mill frame is evident. No settling out of line, no yielding and springing of timber, while a much greater working speed is obtained. It has the most improved style of oscillating motion, it has the Press Rolls operated by power, and it possesses generally all the good features of best American Gangs, with heavier frame work and heavier shafting, all with a view to rapid, steady & correct working. A good look at one of these massive machines satisfies the sawmill man that they are in every way capable of continuously performing heavy duty throughout the season.

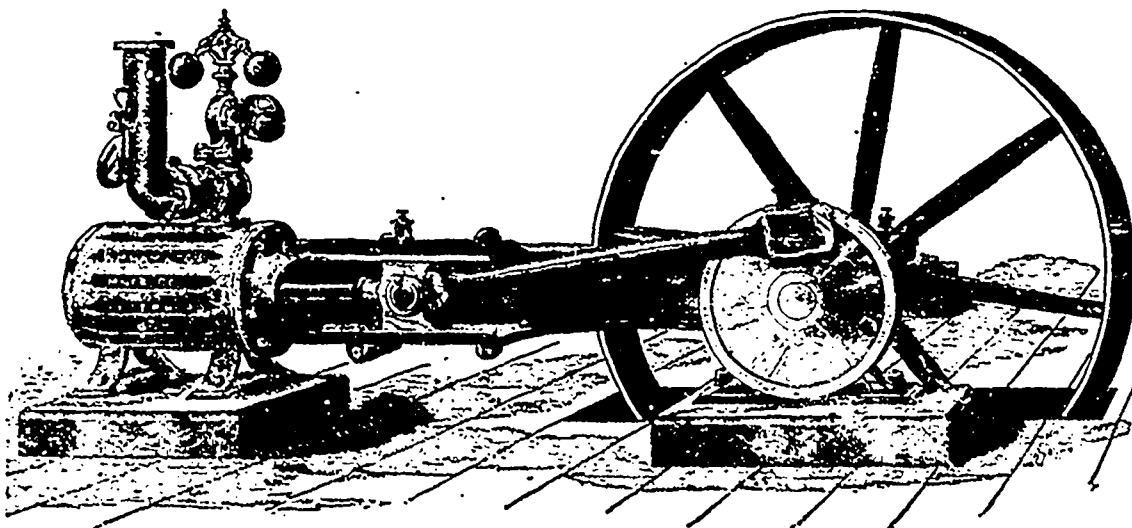


WM HAMILTON,
MF'G CO,
PETERBOROUGH,
ONT.

We make these Gangs one of our specialties and manufacture them of different sizes.

—ALSO—

ENGINES AND BOILERS.



This cut represents our SAW MILL ENGINE, of which we make the following our Standard sizes, 12x16, 16x20, 18x24, and 24x30, built Strong and Substantial for Heavy Work. The Piston Rod, Cross-head Pin, and Wrist Pin, are made heavy and of the best steel; the Connecting Rod has solid ends and is tightened up by screw and wedge, avoiding all danger of keys getting out; the Slide Valve has a simple balance valve, requiring no attention from the Engineer, as it is self-adjusting. The Engine Shaft and Fly Wheel made very heavy. Belt Pulleys put on when required in place of Fly Wheel, and all regulated by the Judson Governor.

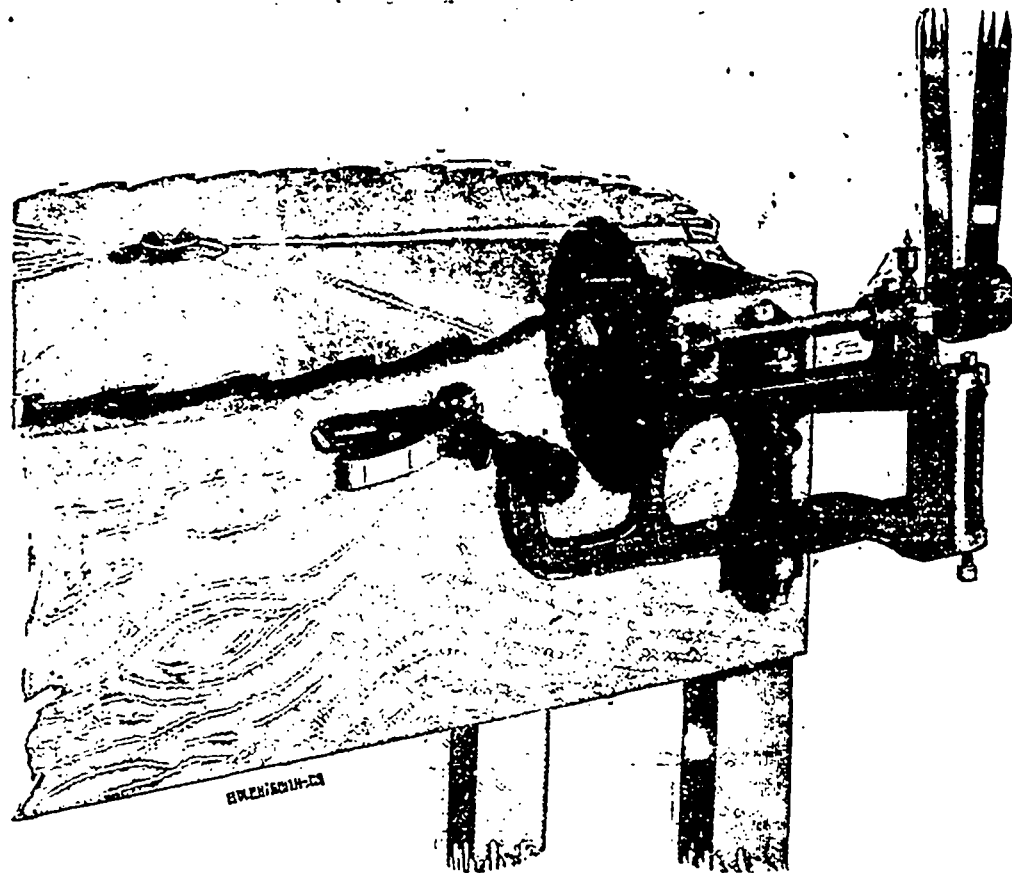
ROGERS' PATENT SAW GUMMER and SHARPENER

The Handiest Machine for these purposes ever Invented.

Don't Heat!

Cheap!

Very Simple!



Accurate!

Works Fast!

Complete!

Lumbering Season, 1884

Saw Mill Owners in providing for the season of 1884, ought not to lose sight of ROGERS' SAW GUMMER for it will save them more money in proportion to the amount invested than any other machine.

Only \$30, including Emery Wheel ; Table and Countershaft, \$10 extra.

A few of ROGERS' SAW GUMMERS were put on the market last season, and we quote some of the commendations received:

JAS. HADDEN, Formead, says:—

"Your machine is all I expected."

CHAS. ANDERSON, Anton Mills, says —

"I have given it a good trial, and am well pleased with it. I find it is one of the indispensables in a saw mill." * * *

ROBT. R. WEIR, Orillia, writes:—

"It works like a charm, and is very accurate in its work."

CRONE & PATTON, Hoc Roc Mills, Gravenhurst, says:

"The Rogers' Saw Gummer purchased from you gives good satisfaction, * * it cannot be beat."

D. DAVIDSON, Pentanguisheno, writes:—

"We are well pleased with the Gummer."

W. W. BELDING, Wyevale, writes:—

"I have the Gummer running and it is giving good satisfaction."

ADDRESS ALL ORDERS TO THE

Hart Emery Wheel Company, Limited - Hamilton, Ont.

Manufacturers of Hart's Celebrated Patent Wire Strengthened Emery and Corundum Wheels.