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VOL. 3.

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NO. 15.

The New Orleans *American Lumberman* calls in question our criticism of Southern pine as a material for car sills. It claims that it is not brittle or lacking in toughness of fibre, that experiments prove it to rank very high as a weight carrying wood, and that its specific gravity is considerably less than that of white oak.

SEVERAL kinds of hardwood lumber are gradually coming into use which a few years ago were unnoticed. Beech is one of them. It is cheap and abundant, while the more popular hardwoods are becoming comparatively scarce and consequently high priced. Beech has a fine grain, is quite durable, and is used in the manufacture of school and church furniture, chairs, and to a certain extent in furniture. The red variety has a handsome appearance and can be made to imitate cherry.

A Winnipeg correspondent says—Building continues fairly active, but only for actual requirements, not for expectations. The speculative element is generally absent. Carpenters and laborers are far in excess of demand. The drives down the Red River are arriving slowly, Mr. Sprague being the only one who has received a respectable instalment. There is low water this season; the same condition prevails on the Assiniboine, but if anything in a greater degree. Much of the stock will, no doubt, be carried over to next season.

THE QUESTION OF WASTE.

There is more absolute waste in the manufacture of lumber than in that of any other line of goods. In this respect the lumbermen are far behind all other manufacturers. Their enterprise and sagacity seem to be exhausted in increasing the amount of their output and decreasing the amount of the saw bill, while 30 per cent. of their logs go to waste and is absolutely worthless. What small proceeds are obtained from slabs sold are eaten up by the expense of getting rid of edging and sawdust. Here and there the more enlightened saw mill men have attempted to make something of what they call nothing, but in the usual run of mills the effort has been to get the cost of throwing it away down to the lowest point. One concern in Minnesota grinds up all its edgings and small slabs, and runs the grindings together with the sawdust by means of conveyors to a dumping ground where they lie and rot until winter, when they are used under the boilers of a neighboring machine shop. Most of the large mills run their edgings, bark and sawdust into burners where "their fire is not quenched" from May till December. At Minneapolis the stuff is dumped into the river, and causes much profanity and many legal proceedings on the part of the St. Paul people below.

The amount of fuel thus destroyed every year

is simply stupendous. Anyone who has watched ton after ton of material, good to make steam with, to make paper fibre of, to extract wood acids from, dumped into a \$10,000 burner, run at a pretty heavy expense, cannot help feeling that terrible waste is one of the characteristics of the manufacture of lumber. Impressed with this conviction, the *Lumberman* has watched with closest interest, and has always noted all efforts to utilize the waste. Among others, it has been especially interested in the experiments of Mr. W. H. Smith, of this city, carried on during the last three years. Mr. Smith has been backed up financially by several Chicago lumbermen, among whom the Messrs. Houghteling, of the Menominee River Lumber Company and the Mackinaw Lumber Company have been the most active. These gentlemen, incorporated under the name of the Smith Consolidation Company, have been unwilling to bring the process and machinery before the public until its value was fully demonstrated to their own satisfaction and to that of other competent judges. We are now glad to bring before the manufacturers a process so practical and so well backed up by practical lumbermen.

Mr. Smith's experiments demonstrate that the sawdust from saw mills can, at a total expense of 70 cents per ton, be consolidated into blocks weighing from 60 to 65 pounds to the cubic foot, and having a steam producing capacity equal to Illinois and Indiana lump coal. One ton of this consolidated sawdust will make more steam than two and a half cords of slabs, and will take up but one-tenth as much room. The fuel makes no perceptible smoke, no clinkers, and has no sulphur or other ingredient injurious to fires. It can be made of any size and shape, and makes a clean fuel for domestic purposes. The company has a written tender for 1,000 tons a year from one house in Chicago, made after undergoing a rigid competitive trial with a dozen kinds of coal. The company claims that Chicago will use hundreds of thousands of tons as soon as it is introduced. The fact of it being a smokeless fuel ought certainly to make it a favorite.

The process of consolidation is as follows: The sawdust is run through a drier and the moisture expelled, and the dust warmed up to a point where the resin is softened and exudes from each particle. While in this sticky condition it is run into the consolidator and impacted into solid blocks, the exuding resin becoming the medium of cohesion. No foreign substance is in any case admixed. The consolidator consists of a heavy steam hammer operating upon the material contained in one of the group of three steel molds. The molds being passed through one-third of a revolution at each movement brings them under the hopper for filling, the steam hammer for consolidating, and the discharging hammer for discharging the mold of

the block just formed, in such manner that the three operations occur simultaneously. One blow of the hammer usually suffices to consolidate the block, which weighs from ten to thirty pounds. Four blocks per minute can be readily made. The capacity of the machine represented is 3,000 pounds of fuel per hour from white pine sawdust. It has just been finished for the Rathbun Company, of Deseronto, Ont., who cut about 50,000,000 feet of lumber and who have expended thousands of dollars in the utilization of its waste, which investment is paying handsomely.

The machine will take up, in connection with the drier, a floor space of 12x18 feet, and will require about thirty-five horse-power. The profits of consolidating sawdust should be very large. The fuel costs 70 cents a ton delivered on board of car or vessel at point of manufacture, and is worth about three times as much per ton as slabs are worth per cord. At Menominee, Mich., slabs sell in large quantities to tow boats, propellers, etc., at \$1.25 per cord, which would make the consolidated fuel worth over three dollars per ton. A machine turning out 15 tons per day would clean up a net profit of say \$2 per ton, or \$30 per day; or, say \$5,000 for the sawing season. It might be said further, that the process applies equally well to planing mill shavings, and furnishes a solution of the difficulty of disposing of the bulky offal of city planing mills. The mill would also save the present cost of disposing of the sawdust.

The usefulness of the present process is not limited to sawdust, but extends to all kinds of loose, coarse and bulky materials. The table given below is based upon three years' careful investigation and practical experiment:

COMPARATIVE TABLE SHOWING THE REDUCTION OF VARIOUS MATERIALS BY CONSOLIDATION.

	Wt. unconsolidated per 1000 lb. of material.	Wt. consolidated per 1000 lb. of material.	Wt. consolidated per 1000 lb. of material.
	Cubic ft.	Cubic ft.	Cubic ft.
White pine saw-dust...	400	33	80
White pine shavings...	800	33	60
Yellow pine saw-dust...	333	31	65
Yellow pine shavings...	666	31	64
Pine bark...	125	31	65
Planing mill shavings...	163	31	64
Ground feed...	78	28	70
Coarse meal...	57	31	65
Cotton compressed...
Hay, straw and grasses in snow...	500	31	65
Hay, in common bales...	142	31	65
Bituminous coal dust...	40	25	80

The *Lumberman* has been fully peated in the facts of the case by the president of the com-

pany—J. L. Houghteling, treasurer of the Mackinaw Lumber Company—to whom we would refer those of our readers who desire to investigate the matter further.—*Northwestern Lumberman*.

THE PACIFIC HEMLOCK SPRUCE.

Great forests of the Pacific hemlock spruce (Morton's) extend along the coast from California to Alaska. It is one of the most beautiful and delicately-foliaged of evergreens, and very spiry, with a broad ground base. They are even more spiry than the eastern Canadian. These tall spruces, farther north, are clad in denser masses of darker green verdure, clothed from the base 100 to 150 feet upward, or more. The body is from two to six feet, and occasionally eight feet in diameter. But along the coast territory mentioned the tree is only from 60 to 75 feet in height, and rarely over two feet through. The thickened lower branches aid in tempering the climate in all seasons, and the foliage, unlike redwoods and their like, precipitates little moisture. It is noteworthy how admirably this tree rallies and thickens in the winter when broken off by the tempest—which often takes the conceit out of its too ardent aspirations, nature's testimony that it bears training to any reasonable extent, responsive to the bidding of the Master. It is one of the best shelter trees known, wherever it will flourish at all, whether for the orchard, garden, yards, or for game of all sorts.

Contrary to experience and observation relative to most other timbers, the old matured heart-wood is more perishable than the young and sappy poles and branches when they are exposed to the seasons, the latter being less shaky, and absorbing and retaining moisture less readily. For this reason the heart-wood is almost solely used for interior work, where it is little subjected to the extremes of outer temperature, as in the case of rudo rafters, where, duly seasoned with the bark on, they are singularly lasting and very elastic, with much of the snap and spring of the yew and cedar, combined with a due degree of strength.

Only in the cold forests of California, contiguous to rivers or cold creek banks at the southern limit of its growth, is the Pacific hemlock spruce never found much over 2 ft. in diameter, and about 60 or 80 feet high. Up to extreme age it preserves the perfect, symmetrical, spiro form, and is altogether less marred by unsightly dead limbs, than its kindred of the east. The same observation applies to Alaska. If the tree were more exposed than in its native coast climate, it might take on a somewhat broader conic style. In the young state, say from 10 to 14 feet high or more, the bark is relatively smooth and even, branches exactly level, thin, fan-like, long and slender, with cherry-brown bark.—*Lumberman's Gazette*.

OUTLOOK OF THE COMING HALF-YEAR

The *Timber Trades Journal* says:—The Board of Trade returns for June were not issued in time to be taken notice of in the present number of the *Timber Trades Journal*, but the expiration of the first six months of the current year, nevertheless, calls for a few remarks as to the aspects of the trade and the indications with which it begins the second half of the year, 1883.

We have already pointed out that the season has been full of contradictions, and we may add that the usual effects have not followed causes with that regular succession which generally enables experience to predict, with tolerable accuracy, how things are going to rule in the immediate future. Take our Liverpool report published last week as an example. With a continuance of moderation in the import trade we naturally look for an improved demand and firmer prices, especially when there is a tendency to rise in the rates of freight. But no, these local advantages appear to be of little or no account in Liverpool, for the report begins by stating that they have "not affected prices to any material degree." It claims some credit for an improvement in the price of spruce deals and birch timber, but the trade in Liverpool must be thankful for small mercies if it is satisfied to see the best sizes and qualities of St. John deals fetching no more at the public sales than £7 7s. 6d., while the highest price to be got for 3x9 did not exceed £7 5s. per Petersburg standard, or at least 5 per cent. below the public sale prices there twelve months ago, and they were understood at that time to be selling badly. It is also intimated that tonnage for the spruce deals ports was not so easily obtained as usual, yet the average price of the deals sold by Messrs. Mackay on the 22nd ult. was not more than £7 2s. 6d. Last year it was made to appear as if the supply of spruce were really falling off, as the shipments from the lower ports fell away considerably in comparison with those of 1881. But it seems to have been not for want of the goods out there so much as buyers on this side, or a paying market to send them to. For, instead of a diminished supply this year, which would be the case if the difficulty lay with the lumberers in getting out the usual quantity, it is seen that shipments up to date are far greater than they were then. In fact, the returns from Miramichi for spruce and pine have more than doubled upon last year at this time, the figures being, for 1883, up to 14th June, 28,364,696 feet super., against 1882, 13,015,096 feet, and it is doubtless the evidence of this fact which keeps down the price on this side. For who will speculate in a material which is already coming forward faster than it is likely to be wanted?

But the sales recorded in the Clyde in the same number present the trade under a far more favorable complexion. Some pine deals, all the way from Oconto, in Wisconsin, fetched, for best sizes—sold by Messrs. Edmiston & Mitchell, at Glasgow, on the 25th ult.—3s. 8d., and even 2s. 9d., per cubic foot, the last price being at the rate of nearly £31 per Petersburg standard; while 2nds, from the same locality, fetched 2s. 9d., or as much as £22 13s. 9d. per Petersburg standard; and 1st ends, 6 to 8 feet, did not go under £24 15s. Even 4th quality regulars went to nearly £10. Norwegian and other battens also fetched fairly remunerative prices, though, coming by way of Grangemouth, they had to pay larger proportionate freights, and this too in the face of a larger importation both at Glasgow and at Grangemouth.

At Greenock, however, things were less promising. Waney board timber at 1s. 10d. per foot cube is a shilling below prices that are not uncommon at Glasgow.

The object is to come at the prevailing tone of the trade in various localities in order to ascertain to which side, for better or for worse, the balance inclines. Now Cardiff has been complaining of dulness in the timber trade throughout the spring; but all at once it turned about and began to look at things in quite a different light, "merchants are clearing out their stocks with more rapidity, and some are again in the market for buying." Again, "the market both for mining timber and pit-prop shows a great deal more animation, and a smart

rise of two or three shillings per load has taken place." This statement is supplemented by an admission that the timber market had been "for some time in a depressed condition," and that the advance would "be welcomed by importers." There is no question of a better state of things now existing at Cardiff than the trading authorities have been previously able to recognise since the season began, and as Cardiff is a kind of local metropolis which gives the cue to an extensive district, a trade revival there reanimates the whole of the south coast of Wales from Newport to New F. ven. We may, therefore, assume that trade on the northern side of the Bristol Channel is in a much more satisfactory state than it has been for some months past.

Crossing over to see what is doing at the great emporiums of the east coast, we get at the following paragraph in our last week's Hull report: "This market is remarkable for its scarcity of Canadian birch, mahogany, and best Quebec pine, and, if holders can be found for these goods, the prices are very high."

And further on we are told that at West Hartlepool "a very rapid development of activity has been witnessed in this market since our last week's report. As about fifty ships had arrived in the interval this might mean more that a good deal of work was going on in discharging and landing their cargoes. But on this point we are not long left in doubt, for we have the following affirmative explanation: "As regards the demand, an active trade is doing from the ships discharging. Undoubtedly the stocks in the interior of the country are at a very low ebb, as from all the shipments large quantities are going away inland from the quayside." It is seldom that our correspondents commit themselves to circumstantial optimism. Their testimony may therefore be accepted without reservation when they boldly declare an improvement and give a substantial reason for it in the same paragraph. Nor are there wanting equally favorable conditions of the trade in Great Grimsby, which last year was thought to have imported more wood than was good for it in its attempts to contest with Hull for pre-eminence in trade of the Humber. Up to the end of May, Grimsby had not imported anything like half the quantity that it did last year. And what is the cry now? "We are surprised at the small amount of arrivals for the time of the year, and cannot think the weather has been the cause of no more ships coming to port, as we are well aware there is a good demand for all kinds of timber and yellow pine especially. . . . We hope to chronicle a greater amount of arrivals next week."

This representation of the state of trade in Grimsby requires no comment. When a port that was understood only a few weeks back to be overflowing still with its last year's supplies is anxiously looking for further arrivals (and some heavy ships had just been announced too) we need not ask any further questions as to the progress of business there. In the Tyne and the Wear also the reports are favorable, and the shortness of the supply in comparison of the importation of last year is spoken of in both as if there were already, or would shortly be, plenty of room for more.

The Scottish ports on the east coast, from Leith to Aberdeen, seem to be in no want of trade, and in no apprehension of supply exceeding the demand. Nor can we detect anywhere that continuance of dulness in the trade which was so marked in the early months of the year. On the contrary it appears in all directions that there is a considerable revival of business and that the retardation of the spring shipments abroad has had all the beneficial effects at home that we predicted for it.

So much has been said of the spiritless nature of the import trade, and the general dulness prevailing the country, that it seemed desirable to inquire a little more closely into the question and ascertain from recorded facts whether there were any grounds for expecting the latter part of the year to be more propitious for the trade than its beginning.

Nor has the result been unsatisfactory. Without a critical inquiry, from place to place, and giving undue importance to isolated circumstances, it has been considered sufficient to

take the prominent facts recorded by responsible representatives of the trade in some of our chief depots—whose statements are open to contradiction if they are colored with their own peculiar views, and do not fairly record the facts that are taking place in the trade of the port they are speaking of. Of these the reader can form his own judgment. But it seems absurd, in the face of the extracts we have here brought forward, to persist in believing that the timber trade is not in as fairly a thriving condition now as it has been at this time of the year for many seasons past. Whatever may have been the trade of the spring, that of the autumn is likely to restore its equilibrium. Let us hope also that it will render the year, as a whole, one to be remembered, as by no means among those that were unfavorable to this branch of trade, and that important action of the community who have invested their skill and their capital in it.

NEW BRUNSWICK.

The St. John, N. B., correspondent of the *Montreal Gazette* writes as follows:—The Crown lands are the principal source of local revenue which the province possesses, and their management is one of the most onerous tasks of the provincial executive. The usual war between large and small operators goes on, and there is the customary tendency toward waste of lumber on the part of temporary lessees. The late Government, for the purpose of breaking the power of the timber ring to some extent, sold licenses to cut for one year only, thus exposing the operator to competition every year. This regulation was kicked against vigorously by the larger number of operators, who protested that they would be prevented from making necessary improvements, such as the clearing out of streams for driving purposes, if they had no guarantee for more than a year's tenure. The Government remained firm, however, and no disastrous consequence followed the adoption of the short-lease rule. "The big men bought timber berths as usual, and the little men squeezed in between them and secured small areas. I am told by many small operators that the one year regulation has been beneficial to them in many ways. They say that the Jumbos of the business have been more gracious to them, more tolerant of them, and much more disposed to give them sub-contracts on fair terms when there was the possibility of their bidding on the land and operating upon it on their own account. The change of Government was effected, to some extent, by the influence of the lumber kings, and the new men were asked to display their gratitude to the McLeods, Gibsons, Snowballs, Kings and others, by selling ten-year leases of timber berths. The new regulations have just been published, and show an attempt to compromise between the demands of the conflicting interests. Two sets of licenses are: The first is for one year, with the right of renewal for the two following years, which is really a three-year license. The dodge of calling it a one-year license is merely a quibbling attempt to make believe that the one-year principle has not been wholly abandoned. All long-time licenses are practically on the same plan. That is, the holder pays every year, and abandons it when he ceases to find it profitable. After this substitution of the three-year for the one year licenses, which, it is fondly hoped, will not be too displeasing to the small-fry lumbermen; an attempt is made to keep the promise to the ear and break it to the sense in regard to the long licenses that were promised the big fish in reward for campaign services. Five year licenses are offered with the proviso that those who accept them must pay \$1.25 per thousand stumps instead of the eighty cents which holders of the shorter licenses are asked for. This is the largest official joke of the season, but the lumber kings will hardly smile at it or own it. I am safe in predicting that not one five year lease will be asked for or taken on the terms proposed. It is absurd on the face of it to offer such conditions as these to men of business. The Government organs graciously intimate that ten year leases may be offered, the stumpage to be placed at \$1.50, and the mileage reduced. Thus will the campaign promises be kept, after a fashion. If the Government can find anybody to pay \$1.50 per thousand as

stumpage, on condition of having a ten year lease, it will be perfectly justified in adopting the long lease-principle, but I do not believe any such men are to be found—that is, if the lands are sold according to custom, subject to the payment of an upset price of \$8 per square mile yearly. The hemlock bark policy of the new Surveyor General has proved so unsatisfactory that the Government organs are meanly laying the blame of its oppressive character on the scalers. The new regulations require payment of stumpage, in addition to the bark tax, on all the logs that are peeled, without regard to their fitness for sawing, and, as a very large percentage of the logs is perfectly useless for any purpose, the regulation is peculiarly oppressive. There has been, I know, a great deal of merchantable hemlock left in the woods to rot, after having been stripped of the bark, and the regulation was, no doubt, inspired by a desire to remedy this evil, but it should have discriminated between merchantable and useless logs. This is a great hemlock country, and an immense business is done in the shipping of bark and the manufacture of bark extract. The latter industry, though of recent origin, has developed into large proportions, and anything which should cripple it would be a provincial loss of no small magnitude. The Messrs. J. & J. Miller & Co., whose head offices are in London, and who have extract factories in Hungary and Quebec, have the most extensive works of this kind in New Brunswick, the chief of which is on the Miramichi, where they keep two or three small steamers almost constantly employed in towing bark scows to the factory and loads of extract to the railway station. They are genial, enterprising gentlemen, very popular with the large communities they afford so much employment to, and the Government must soon see the necessity of amending the regulations which interfere so much with their business. The true hemlock policy, in the opinion of those who have given the subject much thought is the placing of an export duty on the bark, so as to encourage its manufacture into extract or leather before exportation.

YOUNG'S POINT.

From Our Own Correspondent.

THE FASTEST TIME ON RECORD.—Thirty thousand logs belonging to Messrs. H. B. Rathbun & Son were brought from the head of Stony Lake to Young's Point in six days by the well-known foreman, Robert Horan, and from Mount Julien to Young's Point with thirty thousand ties with a hand capsin and fourteen men in three days. This is river driving extraordinary.

JULIUS'S LANDING MILL.—The saw mill lately burned down owned by Mr. Hull, of Lakefield, is, it is said, to be rebuilt this fall. Its destruction by fire was a great loss to the settlers in and around that section of Burleigh.

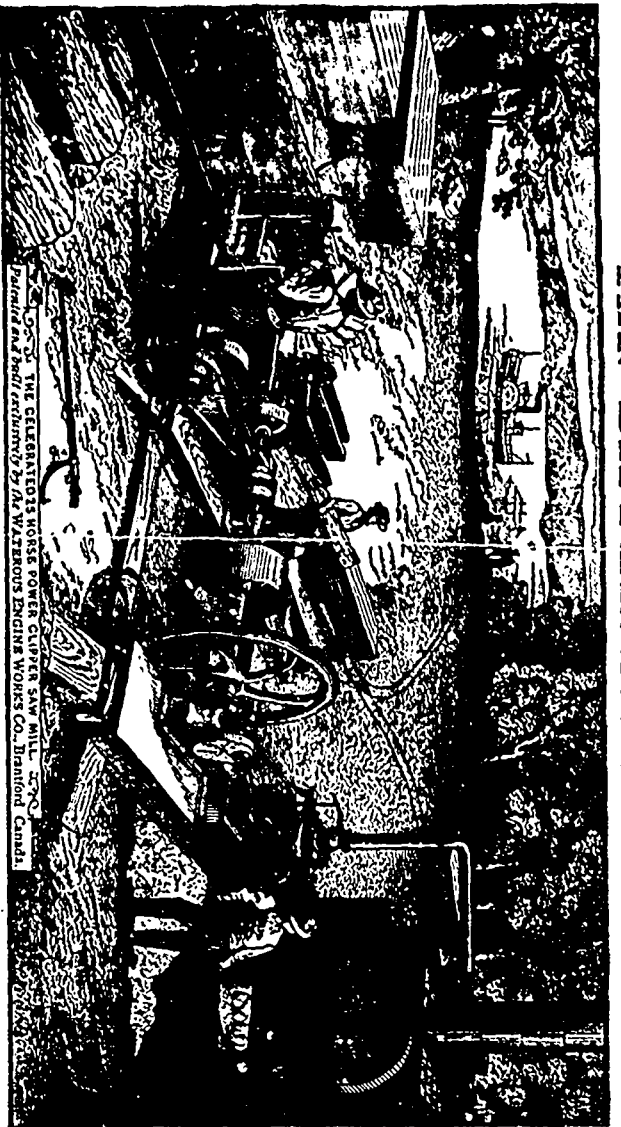
THE DRIVES.—There are no less than five large drives between here and Lakefield. That of Messrs. Rathbun & Son has been occupying the entire river from Lakefield to Rice Lake for the last three weeks, and very likely there will be some fun before they complete their entire lot of logs, as some of the drives behind them are determined to have their logs run to their respective mills without any more delay. One or two foremen having already made threats to run into them and get mixed up, and sort out at Harwood. The first to run to Lakefield is Mr. Chalmers' drive of logs, P. Cassidy, foreman, en route to Hilliard's mills. Ulyott & Saddle have two large drives, Jno. Barr and F. Ball, foremen, en route to Harwood mills. Messrs. R. & G. Strickland also have a drive en route to Lakefield mills. There are four more drives behind those enumerated to pass through here, which will complete the season's work. It is to be hoped all will be run over here before the A. C. A. begin their camp in August.

A Good Example.

The *Quebec Chronicle* says:—It is with pleasure we notice that the Ontario Government, following the example of several States in the Union, and perhaps quickened to action by the steps taken by the Quebec Ministry, has turned its attention to the important subject of Forestry so far as that science relates to the conservation and propagation of trees,

Semi-Portable and Portable Direct Action and Belted Saw Mills

SEVEN DIFFERENT SIZES.

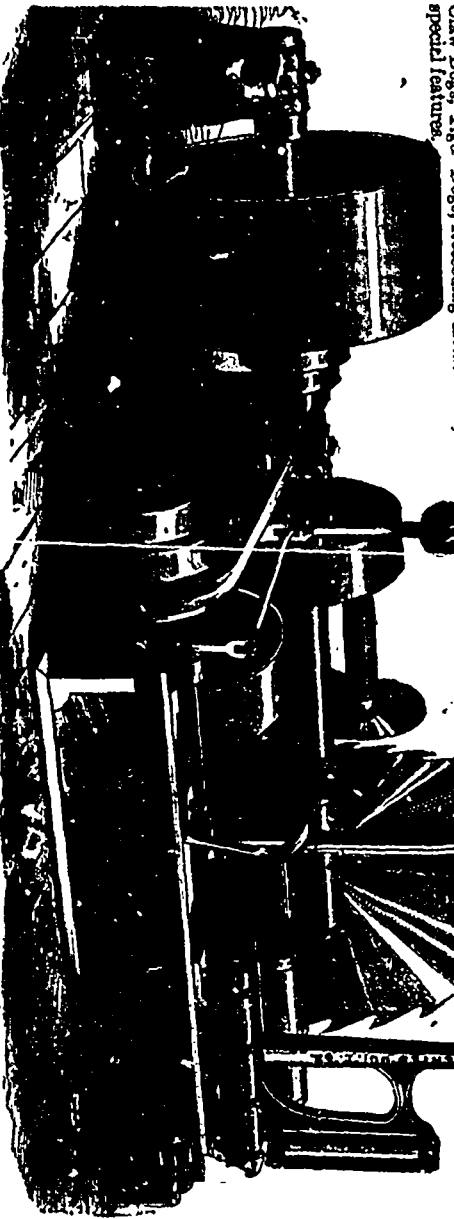


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Above cut represents Our 25 H. P. Patent Direct Action Mill which we guarantee to cut 8,000 to 12,000 feet of lumber per day of ten hours, and to be the most efficient, economical and durable mill built in America, and will saw lumber of cheaper per thousand than heavy large size belted or gang mills. For over a quarter of a century the leading pioneer mill of Canadian settlers. Especially constructed for hard work.

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Using 4 to 12 inch Face Frictions; Steel Mandrels; Reservoir Oil Boxes; Double Leather Feed Belts, from 2 1/2 to 6 inches wide, takes 72 inch Saw and under. **CARRIAGES** to cut any length desired, for abbing or stock purposes, ship yards, etc.; Hatchet or Gangle's Friction Set Works, Eagle Claw Dogs, Tiger Dogs, Receiving Attachments, and special features.

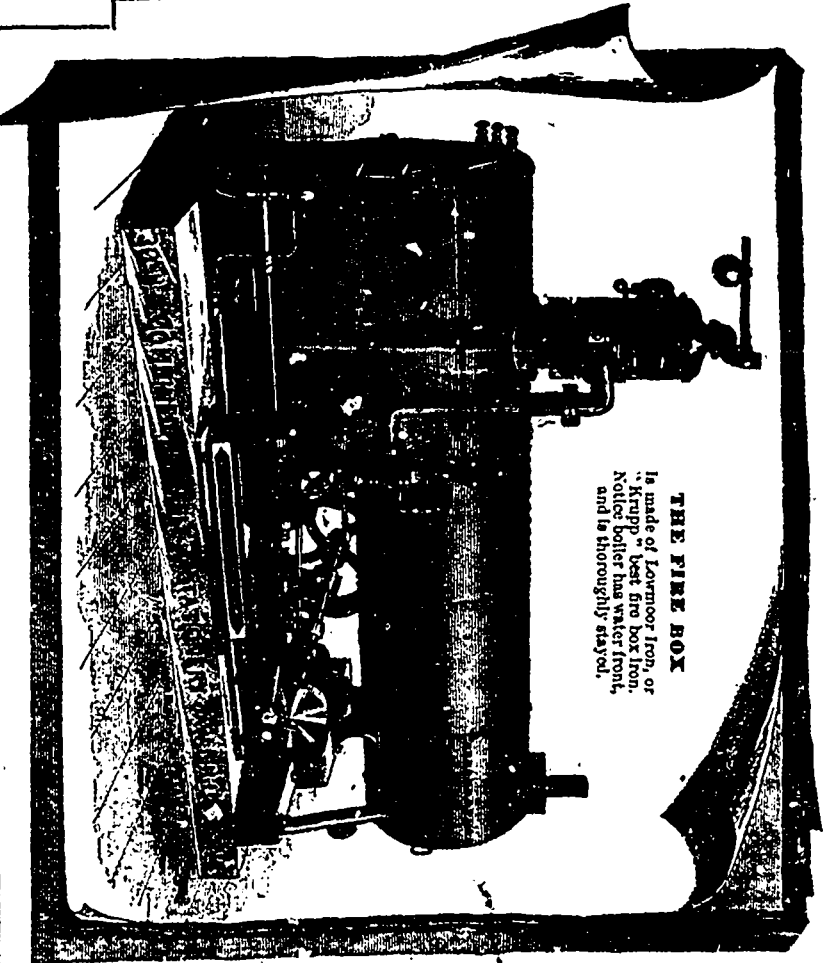


Double Edgers, 2, 3 and 4 saws; Automatic Lumber Trimmers, 5 to 9 saws each; Log Turners, Slash Tables, Log Jacks or Haul-up of all Capacities, Endless and Single Chain; Automatic Log Rollers, Transfers, Live Rolls, Shingle Machines, Drag Saws, Knee Bolters or Block Splitters, Shingle Packers, Gang Lath Mills, Stave Machines, Automatic Sawdust Feeders for Gangs of Boilers, Sawdust, Slab and Refuse Conveyors, Elevators, Picking Governors, Worthington and Blake Steam Pumps, American Planning 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.

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

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

Champion Portable Saw Mills

12, 16, and 20 H. P.



Green's Book writes as follows:—"St. Agnes, N.S., July 27th, 1892. I have just finished sawing with your 20-horse power Champion Engine, and will tell you the result. At the last place I set down, we were just ten weeks from time we moved mill hill nine weeks. We returned home with it. We sawed the above without an accident or difficulty 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 refuse just as it comes from saw and frequently use a portion of the sawdust. I can saw 2,000 feet 1-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 & C. Co.
- Sharnbrook, Que. (2)
- Sorel R. R. Co., Que. (2)
- Coolbrano Rancho Co.
- Bow River, N. W. T.
- Nor. West Milling and Mining Co.
- Bow River, N. W. T.
- Ironore w. 1 Nor. West Colonization Co., Near Brandon.
- Morton Dairy & Farming Co., Turtle Mountain.
- Allan Grant, Ottawa.
- Geo. Parley, Ok.
- Michipicoten Na Copper Co., W. W. Stewart, Montreal

FOREIGN WOODS.

There has lately arrived in New York a cargo of logs from Havro, of the kind known as Circassian walnut, and comprising among it some trees of extraordinary size. It does not apparently differ in grain or quality from American walnut. A dealer, who is familiarly acquainted with the nature and extent of the importations, said to a New York Commercial reporter that the cargoes had arrived here because of the scarceness of our timber. "Formerly," said he, "Ohio and Indiana were covered with excellent black walnut, but the former state has been cleared off for years, and the latter finds her power of answering the demand greatly lessened. These states are comparatively woodless, and few very fine trees are found standing. I have seen logs brought in by the Katio, and cannot notice any difference between them and our timber, except, perhaps, they are a little redder. They came here from Havro, but where they were grown I cannot say. The United States still have much wood, but the immediately accessible supply is rapidly diminishing. We have for a long time imported the more precious woods, and I suppose the time cannot be far distant when other woods will be brought in. There is no duty on them, and in many places where they can be obtained there will often be short cargoes of other things."

A prominent firm of importers said: "There never has been a time when some of this commodity was not brought in; just as in Brazil to-day, covered as it is with forests from end to end, they import pine and other lumber from the United States and Canada. But until lately the kinds sold here have only been of the varieties we do not grow. Prominent among them is Spanish cedar. It seems to have some qualities which American cedar does not. Its use is almost entirely for cigar boxes, while the Florida cedar has its chief utility in lead pencils. What is not consumed here is bought by the Fabers, and other European manufacturers, and taken abroad. The size of the Spanish logs is from twelve inches to three feet square, which is true also of mahogany, the next largest article of importation. This is very rarely used in a solid shape, but is worked up in veneers, the cutting being done in this city and elsewhere in the union. For a long time this wood defied the ordinary cabinet maker, but the machinery now in use is capable of sawing off a shaving scarcely thicker than a sheet of paper with the greatest of ease. Mahogany has been out of favor for a number of years, but of late seems to be regaining its hold. The new methods of combing it with lighter woods relieves it of that sordidness which formerly characterized it. There never was a time, however, when some people did not admire it and have articles of furniture made from it. Next in order to these in value I would place rosewood. This comes from Rio de Janeiro and Bahia, and is more largely used in pianos than for anything else. Many people admire it very much. Its value depends upon the richness of its color and upon its figure. It is sold differently from other woods, being disposed of by the pound at prices varying from two to seven or eight cents. The importation of mahogany in this country last year might have been about 25,000 logs; of cedar, 25,000 logs, and of rosewood, 12,000 logs."

Another importer thought that we had much to gain by the introduction of more varieties of foreign woods. "There has grown to be a too great sameness about our household furniture and decorations. Those who have watched the trade for many years can remember when curled maple was the rage, and when cherry was considered the proper material out of which to make everything. Mahogany and black walnut have each had their day, although they will still continue to be used largely. The last fashion has been for French walnut red wood. But there exist in South America and Africa, to say nothing about Asia, many trees of whose qualities we are almost entirely ignorant, and which would serve an admirable purpose in decorating our homes. We still have considerable satinwood, although that is now out of favor; ebony is of great value in affording a contrast, and lignum-vitæ is used for blocks to pulleys and similar purposes. A considerable quantity of these various kinds are imported

year by year, but not so much as we ought to have, considering the wealth of our people and their disposition to spend money."

"Do the native woods of the United States compare with those imported as to beauty?" inquired the reporter.

"No," was the answer. "The foreign woods are the hardest, have the best color and the finest graining, and the most specific gravity. Lignum-vitæ is so heavy it will sink in water. But we still possess an admirable variety of woods. Our oak is excellent, although we occasionally import some from England, as it is of a darker color and has more knots. No material for general use can be more effective than black walnut, and our butternut, ash, redwood and other trees give us a variety to choose from. Bayard Taylor had much of his house finished off in pine, and it looked well. The furniture which is made in Grand Rapids is sold in considerable quantities in Scotland, and it is sent abroad more or less all over the world. There is no reason why the rarest products of the East Indies and of Africa should not be used here, except the difficulty of getting people out of the ruts of old habits."

The total imports of wood and manufactured wood for the last year reported was \$14,532,604. Of this, there was for box-wood, \$48,991; cedar, \$330,952; ebony, \$72,334; granadilla, \$3,111; lancewood, \$10,634; lignum-vitæ, \$29,839; mahogany, \$569,412; rose, \$260,787; sandal, \$702, and all other cabinet woods, \$315,415.

ECONOMY IN SAWING.

The more economical production of lumber is a matter which is attracting considerable attention from mill men in all parts of the country. It is claimed by many sawyers that it is impracticable to run large circular saws of a thinner gauge than those now in general use. This impracticability is probably more fancied than real, and in a few years we expect to see thin circulars running as successfully as thick ones do now. Mill men cannot afford to waste so much good timber in sawdust. Thinner saws are certain to come into general use in the not far distant future, and it would be far better for mill men to adopt and learn to use them at once, than to wait until the scarcity of timber forces them to do so. A practical sawyer writes to a contemporary:—"I started on a 10 and 12 gauge saw three years ago, as my previous boss said saws thinner than 8 could not be run. I did not venture on a very thin saw to start with. I ran the 10-gauge saw about thirty days; then I had it ground to a 13, it being a 62-inch with 40 teeth. I used it as a 13 until about three months ago, sawing a vast amount of lumber of good quality. I had it ground to a 16 and a double number of teeth put in it. It stands today a 47-inch 16-gauge saw, and runs as true as a file and as straight as you can stretch a string on an inch-feed in hard oak with plenty of knots. I run my mill with a 10-horse power engine, and have plenty of power. I do not find a thin saw any harder to run than a thick one, if kept sharp. A thin saw requires more filing than a thick one. But I think any saw ought to be filed four or five times a day. I like to see a saw cut keen, with plenty of speed. A saw that drags along at 350 or 400 revolutions does not saw much. Any saw should run 10,000 or 12,000 running feet or rim measure per minute. I am going to try a 52-inch 16-gauge this fall. I think it can be run successfully, with a great saving in timber. We still have some old 'Brogue' sawyers who think nothing but a 6, 7 or 8-gauge saw will run, and are ready to denounce thin saws. But I picked the ticks off some of them in this section. The most skeptical one I know of in this section says I have knocked the wind all out of him, and yet he has run a saw mill over since circular saws came into use."

WALNUT FOR EXPORT.

A southern paper reviews the subject of walnut operations in Kentucky, as follows:—"In walnut producing sections, near mines and railroads, even the stumps have been dug from the ground, and the material used in the manufacture of costly veneering. Messrs. Bry & Horn have made Frankfort their headquarters for the purchase of walnut and other hardwood timber

to be shipped to Louis Bry, of Berlin, Germany. They began business last March, and have already shipped 2,407 logs containing 675,912 feet of walnut, at an average value in this city of \$25 per thousand feet, or a total value of about \$37,000. It required 163 cars, costing for transportation \$80 per car, to carry the logs to New York, Newport News, and Baltimore. Thence the logs were put aboard sailing vessels and carried directly to Hamburg, at a cost already told of \$15,000. These agents claim that Frankfort offers many advantages to buyers, both in the facilities for the purchase of the logs and for the transportation of the freight, which is chiefly carried by the Louisville & Nashville railroad direct to the shipping points. The firm employs an average of 30 men, and pays out to them about \$400 per week. These men cut the bark off the logs to relieve them of all superfluous weight, and then paint the ends red as a preparatory course to shipping. The timber is very valuable in Germany, and is used for furniture and other household purposes, just as it is here, but chiefly for purposes of veneering as a means of economy in the lumber. The season is now about over until next fall, when the froshets come to let the logs out into the river, but by that time the firm expects to branch out into the business on a much larger scale, by building log booms, etc., in the head waters of the Kentucky and Cumberland rivers. Mr. William Ray, a well-known Louisville capitalist, who is largely interested in the extensive saw mills of the Cumberland Lumber Company, at Williamsburg, Ky., will start for Europe in a few days, partly for the purpose of negotiating the sale of a quantity of walnut timber.—Northwestern Lumberman.

ARRIVALS IN THE THAMES.

The Timber Trades Journal says:—"Of the long list of 78 timber-laden vessels, reported at the London Custom House this week, 37, or not quite the half were steamers, which, in the middle of the season, when almost any old vessel can trade with the certainty of fine weather, is a further indication of the growing increase in the demand there is for steam tonnage. It is not so long ago when the trade would have been taken by surprise if they had noticed two or three steamers in such a fleet of arrivals as we have to record this week, but now that the novelty is worn off, the immense amount of steam tonnage employed ceases to astonish anybody and is received by the trade as a matter of course. Thirty-seven steamers, out of a list of 78 vessels, means that nearly two-thirds of the of the wood brought has been by steam. As a rule, the sailing ships—allowing for coal and engine space—average quite a third less tonnage than the competitors, and if we deduct that from them, and place it to the account of the steamers, we shall get an approximation of the quantity of timber brought by steamers over that of sailing vessels quite equal to what we have stated. To London, at any rate, this preponderance of steam tonnage is not unexpected, and increases every day. We expect steamers will play the most prominent part in the timber trade to almost every country in the world by and by. To small coast ports sailing ships will continue to trade, but the big depots will be entirely monopolized very soon by the more paying class of vessels.

In the list mentioned, the first of the Quebec spring fleet are noticeable—as usual the Hovding is the soonest in the docks, followed next day (June 29th) by a large vessel, the Victory, but excepting the New York regular liners, there is nothing else from the other side of the North Atlantic.

The list recorded shows a large importation for one week, even in July, and exceeds by ten vessels the number that came the first week of July last year. However, we must recollect that no less than twenty of the recent arrivals are laden with firewood from Northern Europe. Still almost every Swedish and Baltic port is represented with other goods, and a plentiful supply of deals and bat'ens may now be depended on of whatever kind or quality the buyer may be in search of. The fine weather and variable winds have brought us ships from all directions, besides large numbers of steamers.

Freights to London from the Baltic are rather

depressed, and we understand there are a lot of steamers, now in the Mediterranean, that loaded out coal unchartered, and ready to accept anything they can get, so that the prospect of any improvement is not-encouraging to ship-owners. 27a. Gd. Gelle to London and 28a. Gd. Soderham, both steamers, has been done, which we believe are the lowest rates closed this year. The coal trade has been apparently active, the price having risen 2s. per ton, but we do not hear of any advance in the rates as freight, which seem by latest advices to be about stationary. Colonial freights, on the other hand, are firmer. Still there is not much doing. Plenty of vessels are wanted, but the position between the charterer and shipowner is somewhat strained, the former trying to obtain some reduction in the market rate, while the latter is rather inclined to demand an advance. So that, as neither seems disposed to give way, like last year, the season may slip away without anything being done.

That steamships are working at little or no profit seems palpable from the fact which we recorded at the time of a steamer leaving London awhile since in ballast for Miramichi to load deals back at 34s. a standard. We can hardly see how such a voyage can possibly be a profitable one to the owners. The coal consumed and the other expenses might, not unreasonably be expected to almost equal the freight she would earn.

There seems nevertheless to be a tendency to replace sailing ships by steamers, and we expect it will not be long before vessels of the latter class get well into the pine and spruce trades.

BAD POLICY.

The Winnipeg Commercial says:—"Not many months ago a leading firm in this city which pays spot cash for every thing they buy, wished to contract for between two and three million feet of lumber. They had no intention to go beyond the limits of the province for their supply. But when the dealers were approached their prices were beyond ordinary reason, hanging on to the old boom time rates. Instead of ordering at home then this firm ordered their supply from eastern points, and it is now being delivered at Port Arthur. Two millions and a half feet of lumber would make a big hole in many a lumber yard in this city, and only the grasping avariciousness of those connected with the trade, who thought they controlled everything, is responsible for the result. What we have mentioned is only a case in sample. There are doubtless many others of a similar character.

The Timber Trades Journal says:—"A considerable proportion of colonial stock has been placed since our last communications from Quebec and other of the St. Lawrence ports, and judging by the large inquiry for tonnage, many of the spruce shippers as well must have found a market on this side of the Atlantic for their goods. Still chartering for the reasons mentioned seems to drag slowly on, and if shipowners decline any abatement, those who want ships must give the rate or lose the chance of getting tonnage for the second voyage altogether.

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.

Do not attempt to remain over night without a bottle of Dr. Fowler's Extract of Wild Strawberry near at hand. This is the season for Bowel Complaints, Colic, Cholera Morbus, etc., and the remedy above named is the unfailing specific.

A CURE FOR CHOLERA MORBUS.—A positive cure for this dangerous complaint, and for all acute or chronic forms of Bowel Complaint incident to Summer and Fall, is found in Dr. Fowler's Extract of Wild Strawberry; to be procured from any druggist.

"WHEN all other remedies fail," for Bowel Complaint, Colic, Cramps, Dysentery, etc., "then Dr. Fowler's Extract of Wild Strawberry comes to the rescue." Thus writes W. H. Crooker, druggist, Waterdown, and adds that "its sales are large and increasing."

WOODS FOR SPECIAL USES.

The following list of woods and purposes for which used will be found interesting:—Ship-building—cedar, pine, fir, larch, elm, oak, locust and deal. Wet constructions, (such as pilos, foundations, fumes, etc.) elm, alder, beech, oak, plane tree, white cedar and palmetto. House carpentry—pine, oak, whitewood, chestnut, ash, spruce and sycamore. Machinery and mill-work, frames—ash, beech, birch, pine, elm, mahogany and oak. Rollers, etc., box, lignum vite, mahogany and service tree. Teeth of wheels—drab tree, horn beam, locust and service wheel. Foundation patterns—alder, pine, poplar, walnut and mahogany. Furniture, common—beech, birch, cedar, cherry, pine and whitewood. The best amboyna black ebony, cherry, mahogany, maple, oak, rosewood, satinwood, sandalwood, chestnut, cedar, tulip, walnut, zebra wood, ebony and ash. The elastic woods are ash, hazel, hickory, lancewood, chestnut, yew and snake wood. The tough woods are beech, elm, lignum vite, oak, walnut and horn beam. Carving woods—pear, box, lime tree, dogwood and ebony. Scented woods—camphor cedar, rosewood, sandalwood, sasafra and tinwood.—*Wood-Worker.*

AN IMPORTANT CHANGE.

The saw-mills recently stationed at Bradford have been removed to Orillia. Bradford's loss is a great gain to Orillia. "It means," says the Bradford Witness, "the diverting of the immense traffic to result from the development of eighty miles of the extensive timber lands of Black river from the Northern Railway and Toronto to the Midland Railway and Leamington. If the canal to connect Lake St. John with the Couchiching is built, and there is little doubt—the distance being only 400 yards and the cost only \$30,000—the product of the Messrs. Strickland's sawmills and their timber making operations (their timber on the Black river amounts to 150 million feet) will be sent over the Midland Railway via the Missing Link, and will pass through Peterborough. Last year the firm sent 250 thousand cubic feet of timber over the Northern Railway, and this year so far they have sent 125,000 cubic feet. Their timber cut, which amounted to 7,000,000 feet last year, and this year so far to 4,000,000 feet was also sent over the Northern Railroad. This is only the business of one firm, but when the operations of all the other timber and lumber business of the Black river become tributary to the Midland and Peterborough some idea may be formed of the immense traffic that will be diverted from the Northern to the Midland."

DESTRUCTION OF SPRUCE FORESTS BY WORMS.

A good deal of alarm has been created of late, especially in New Brunswick, by reports of the destruction of the spruce trees by worms or borers. As that Province largely depends upon its spruce forests for its export trade the prospect of having them destroyed was well calculated to excite apprehensions and to stimulate inquiry. We observe by the Maine papers that the same decay of the spruce trees has been noticed in that state, especially in Northern Aroostook. There has been already in that district a loss to the owners of the land of tens of thousands of dollars, and the matter has caused a great deal of anxiety. During the present season a noted entomologist is going to Aroostook to look into the cause of the decay and death of these trees, and he will probably be accompanied by Franklin B. Hough of the United States Commission of Forestry, who has lately been in the state making some investigations. A township north of New Sweden was operated upon last winter for the first time, and was supposed to have an immense quantity of spruce upon it. It was found that a large number of the trees were dead. This is true of all the other towns in which the spruce is reported fast dying only from old age—that the young trees are not affected by worms or insects, that in the old spruce the worms follow, but do not precede decay. In order to get at an intelligent conception of the matter the Boston Globe obtained the views of a number of practical lumbermen and woodmen. One old lumberman of Caribou, Aroostook county, who has had charge of a

number of townships of land for several years, and who has had great experience in the woods, says that on five ranges of townships the spruce down to eleven inches are dead or dying, and that the young spruce are unaffected. His view of the cause is that about eight years ago late in the fall there were very heavy rains, which loosened the earth, and that the rains were followed by a protracted gale and a hard winter. The root fibres were broken, which caused decay; then the worms followed. On the north-west slope, where the wind had the greatest range, the trees suffered the most. The trees at first at the top present a scorched appearance, and year by year death passes towards the roots, some times one side at a time and at other times on both. He says it would be impossible to estimate the loss in Aroostook county.

Other gentlemen well acquainted with the lumber districts of Maine and New Brunswick expressed substantially the same opinion. They agreed that the worm did not attack young and thrifty trees, but only those which had begun to decay. The spruce is not a long lived tree, but grows rapidly and, after it reaches maturity, which is in from sixty to ninety years, begins to decay. We do not know whether a similar state of affairs exists in this Province, but the matter is one which invites inquiry.—*Montreal Herald.*

The Pine a Barometer.

The *Illustrirte Garten-Zeitung* says it is the easiest thing in the world to foretell the weather by observing the common American pine (*Pinus Strobus*). If we expect rain or snow within a reasonably short space of time the branches of the last two season's growth will be pendulous. If such weather be a long way off, the branches will be raised rather than drooping.

A Short Output.

The *Lumberman's Gazette* of Bay City, Michigan, says:—By the middle of July last year over 40 per cent. of the mill cut of the Saginaw river of 1882 had been put on to the docks, but an immense reduction from the figures of 1882 is shown this year. First a very late opening interfered, and then the mills have been subjected to continual and annoying delays from high water and lack of logs, and the present prospects are not of the most flattering description for anything like last year's output. Long ago we predicted the lumber cut on the river would be 250,000,000 short, and we see no reason for a change of opinion, while the *Call*, of this city estimates the shortage at 300,000,000 feet. It is safe to assert; however, that the output of lumber for 1883 will not much exceed 75 per cent. of that of 1882.

Immunity from Fire.

The freedom of the yellow pine from the blighting effects of forest fires is a problem which, as yet, has not been satisfactorily solved, and it is one which has excited the admiration of many old Michigan and Pennsylvania lumbermen. Many reasons have been given, but the latest is from a lumberman who hails from Pennsylvania. He has watched the progress and effect of many fires, and some especially hot ones, upon individual trees, around which dead limbs were piled ten and twelve feet high. The tree would be burned black, but no injurious effect was observable afterwards, as the tree grew steadily on. He has about reached the conclusion that the heat from the fires draws a superabundance of sap to the heated portions of the tree, and thus prevents the wood from burning.—*American Lumberman.*

The *Timber Trades Journal* of July 7th, says:—During the past three months the consumption of Quebec pine logs (waney boardwood, yellow pine, and red pine) amounts to about 9,000 logs; and of oak, elm, and birch, 3,200 logs. Of pitch pine logs, hewn and sawn, the quarter's consumption has been about 15,000 logs.

It is now in season to warn our readers against the sudden attacks of cholera, Cramp Colic, and the various Bowel Complaints incident to the season of ripe fruit, vegetables, etc. Dr. Fowler's Extract of Wild Strawberry is the grand specific for those troubles.

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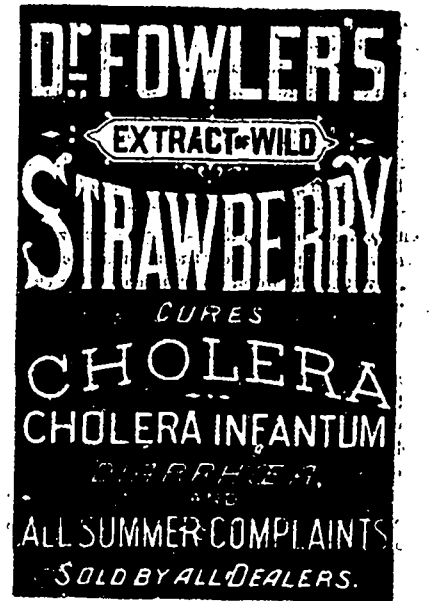
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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number,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

The CANADA LUMBERMAN is filed at the Offices of Messrs. SAMUEL DEACON & Co., 164 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

PETERBOROUGH, Ont. AUG. 1, 1893.

WE would call the attention of our readers to the important auction sale of valuable timber limits to be held at Ottawa on August 28th, the particulars of which may be found in our advertising columns.

AN estimate has been made of the timber lately levelled by the tornado near Hubbard lake, Mich., by which it appears that Fletcher, Peck & Co. have about 4,000,000 feet flat, and Jackson's fallen timber amounts to 8,000,000.

A GREAT deal of rafting is being done on the Ottawa just now. Timber cribs are being formed into rafts at the foot of Government Hill, and large rafts are being made up, near Gatineau Point, of small cribs of railway ties from up the Gatineau river.

THE *Northwestern Lumberman* says:—The Canadian propeller Bruno lately loaded at Ashland, Wis., and cleared for Quebec, with a full cargo of first-class, gang-sawed deals, manufactured by the Superior Lumber Company. It was the first of four cargoes sold by that Company to Quebec parties.

MR. McALLISTER's drive of 40,000 logs, after all, has stuck in Snake River. The water was high enough but the rank weeds that grow to such an extraordinary height in the water there prevents them being further driven this year. Many of our citizens will be sorry to hear of the mishap, after the efforts of Mr. McAllister and his men to get them through.—*Standard*.

THERE are about ten thousand pieces of what is known as "piling" on the river above the falls, says the *St. John Globe*, intended for the American market, chiefly New York. The usual freight on these articles would be about fifteen thousand dollars, almost as much, if not quite as much, as the first value of the tree. Instead of sending them to the States by schooner, the owner intends to do them up in large cribs, which will be six or seven feet below the surface of the water, and three or four above, and thus tow them to their destination. This, it is believed, will cost much less than the usual mode of conveyance.

AN Ottawa despatch of July 23rd says that an extensive jam of logs on the Gatineau broke this morning in the vicinity of Gilmour & Co.'s mills, carrying away a portion of the boom and allowing thousands of logs to float down the stream. The damage done will reach several thousand dollars.

THE *St. John, N. B. Telegraph* says that today very little pine, spruce, hemlock, or cedar is permitted to go to waste. What used to be waste is now made up into casks, barrels, and kegs, for lime, sugar, and nail manufacturers, and the rough bark of some of the lumber is eagerly sought for by paper-makers. Our contemporary adds:—"If a penny saved is two pence earned, our mill men may be congratulated upon the opportunities made available by discovery and necessity during the past few years."

THE *Ottawa Free Press* says:—The probabilities are that the output this season of the Ottawa and Hull lumber mills will be far in excess of that of any former year. By the numerous improvements and additions the capacity of the mills has been increased fully fifty per cent. and the facilities for removing lumber have been greatly improved. Though considerable quantities are being shipped away, the piles are rapidly increasing and piling ground is at a premium.

A Winnipegger recently returned from the extreme end of the C. P. R. track, has brought from the Belly River a specimen of lignite coal of bright, clear character, burning excellently and giving out strong heat. He has also specimens of petrified pine showing perfect formation of the ancient tree, and proving the existence in the country at an earlier period, says the *Manitoba Free Press*, of trees of mammoth growth. Clusters of quartz, showing indications of gold, clung to the specimen.

THE *Fredericton, N. B., Capital* of July 10th, says:—The work of rafting logs at the Douglas, Mitchell and Glazier booms is now rapidly pushed forward by strong crews, numbering in all about three hundred and fifty men. With this force and favorable weather, the average number of joints put up per day ranges from 400 to 450, or, in superficial feet amounting to 1,250,000 per day. Rafting at the Glazier boom only commenced last week, previous to which there has been rafted at the Douglas and Mitchell booms 30,000,000 feet this season in 10,000 joints. All the lumber to come down the river this summer is now on the booms, which are estimated to contain, at present, about 90,000,000 feet. This amount, with the present crews and favorable weather, can be put out in about 80 days. The company expect to have all the logs rafted by the middle of October at the farthest.

THE FORESTS OF ONTARIO.

THE report compiled by Mr. R. W. Phipps on the necessity of preserving and replanting our forests, will, we hope, call general attention to a matter of which we have constantly urged the importance, namely, the wasteful system adopted by Ontario, in common with the other Provinces of Canada, in regard to the forest wealth of the country.

The constant and rapid denudation of our forests and woodlands has already done an amount of damage which will be difficult to remedy, and which, if continued much longer, would be irreparable, except at an enormous expense. Already the removal of shelter has affected the climate and deprived our arable land of protection, till smaller crops are obtained from the cultivated lands than would not be the case if a less area were under the plough and a portion of it left wooded. Our forests have been trampled upon until already in many large districts our lumbermen are unable to find timber of the quality formerly obtained, and no distant period must see our Province importing instead of exporting. The capital of the Province is being seriously impaired, for forests, which ought to be a perpetual source of income, are being extirpated once for all, in many cases leaving the cleared land almost valueless.

Under our present system the settlers and

lumbermen are invited and indeed almost compelled to join in a race for the destruction of our forests, resulting in the least possible benefit either to the public or to themselves, and causing between them a feeling of antagonism which is to be lamented.

The principal remedy for this improvident system which has been hitherto in vogue in Canada, without distinction of Province or of party, is the setting apart of public forests to be reserved in perpetuity. In Ontario the necessity for this measure is especially pressing. There should without delay be established a separate Department, or at least a Bureau of Woods and Forests, under a competent head and with an efficient staff.

The first and most pressing important duty of this Department would be to examine and map out the Crown Lands, the public domain of the Province, so as to discriminate between agricultural lands to be opened for settlement, and forest lands where the existing timber, the nature of the soil, or other circumstances, render advisable the reservation of a certain area as a public forest. Of course these recommendations should be subject to proper checks, and the final reservation of forests should be a matter for cabinet action and ministerial responsibility. Hereafter, too, the boundaries of the forest areas might be modified, enlarged, or restricted, as circumstances might demand. When such a separation of our public lands is effected, settlement should not be allowed in the forests, and the operations of the lumbermen should be at least restricted in the lands to be devoted to agriculture. In this manner much of the present friction, antagonism and waste would be avoided.

The forests, when once established, should be treated as such public property is managed in Germany, which is the head quarters of the science of forestry, in the British Isles, in other European countries, and even in India and Australasia, which are more prevalent in this respect than we have been. There an annual crop is obtained from the forest as from the farm, and this important portion of the public capital is not exhausted at one fell swoop.

Though it would have been easier to have adopted these measures at an earlier period, it is not yet too late. We may instance the height of land running across Ontario northwesterly from the Thousand Islands to the Georgian Bay and Lake Superior. Much of this is far better adapted for forest culture than for agriculture. Much of it is still covered with valuable timber, though it is fast disappearing. There are large tracts of it where little of the land has been alienated to settlers, and some of it is still in the hands of the Crown. A great portion of it is under license to the lumbermen, but it should not be impossible to devise some plan by which their vested interests may be protected, while the value of the public domain is preserved. With settlers excluded from the forests, one great reason of the haste of the lumbermen to strip their limits of the timber would disappear. By limiting the cut to mature trees, by sparing those still immature, by providing for the removal of fire-spreading debris, and by encouraging the young growth, or replanting where necessary, a perpetual supply of valuable timber might be maintained. This is done in other countries very similarly situated, and we see no reason why it cannot be done in Canada, with great advantage both to public and private interests.

To establish such a forest staff as would be necessary to carry out this plan, recourse might in the first place be necessary to an experienced forestry officer from Great Britain, or even from Germany, where the science has been practised and studied for centuries. Soon we should be able to produce our own qualified forestry officers, and pending other arrangements, the Agricultural College might be utilized for such training, its head officer having already displayed much interest in forestry.

If any good is to be done, early action is of the utmost importance, and we hope that the next session of our local legislature will see steps taken in this direction.

THE LATE DR. JOHN A. WARDER.

We regret to have to record the death of Dr. John A. Warder, whose zealous efforts to

promote forestry are well known to our readers. He was a valued contributor to the columns of the CANADA LUMBERMAN, and we will miss his general correspondence, advice and even criticism. The *Northwestern Lumberman* says of him:

"Dr. John A. Warder, of North Bend, Ohio, who died recently, was an enthusiast in everything that pertained to forestry. He labored earnestly and vigorously for forest protection and extension, and was always a leader in the meetings called to consider these questions. The last time he visited the *Lumberman* he spoke in detail of what he hoped to accomplish, but it was plain to an observer that owing to his age and state of health his aspirations would never be realized. He has written much on subjects pertaining to forestry, and while practical men might easily find an opportunity to differ with him on some points, no one ever questioned his earnestness, or that his intentions were of the very best."

Does Lightning Strike the Pine?

It has been often said by the so-called wise old "Say So's" in this locality that the lightning never strikes the pine tree; but the fact was very conclusively demonstrated to the contrary to-day at this place—Mr. James Fenwick's, Mr. Fenwick's place is the one adjoining that of Admiral Lee. Just after 1 o'clock p.m. the storm passed directly over Mr. F.'s house from the northeast, and soon after a vivid flash of lightning came, which struck two pine trees only ten or twenty feet from his house. A part of the electricity passed down the trees into the ground, tearing off great strips of bark and cutting a groove into the trees for some distance just before it passed off into the ground. The rest of it followed a wire clothes-line attached to one of the trees to the other end of the wire and then passed down a cedar post to which the wire was attached into the ground. It split the post the whole length and broke off large pieces from it. It was a very narrow escape for the house, for if the cloud had discharged a moment sooner it would certainly have hit the house, and perhaps have done a great deal of damage. There are a quite a number of Washington people spending the summer here and all who were at the house were very much alarmed, and also the animals. The horses in the stable never tried to break away and run, the flash was so vivid and the report so loud.—*Sligo (Md) Letter to Washington Star*.

Damage by Logs.

DETROIT, July 27.—Yesterday morning three piers of the Detroit, Grand Haven, and Milwaukee bridge went down before the pressure of one hundred million feet of logs, and the logs passed on and tore out the Grand Rapids and Indiana and Chicago and West Michigan railroad bridges. The logs are now at rest against the Lake Shore and Michigan Southern, which will probably give way. Seventy million feet of the logs are owned in Grand Haven, and 30 million in Grand Rapids. The damage to the Detroit and Milwaukee bridge will amount to \$20,000; Grand Rapids and Indiana destroyed, cost \$20,000; Chicago and West Michigan damaged, \$30,000; Sixth and Seventh wards flooded, creating damage estimated at \$20,000; different factories damaged, \$15,000, and those on the canal will shut down for three weeks. The city bridges all stand, but some are shattered.

THE Indianapolis, Ind., Wooden Dish Company has perfected a machine, which takes the veneer from the mill, cuts out the blank, shapes and scores it, folds it up, makes, drives and clinches the wire staples, and throws the dishes off complete, at the rate of one a second. The company's works, burned last March, have been rebuilt, and \$12,000 worth of new machinery has been purchased. The works will start up August 15, and have a capacity of 200,000 per day.

ROCK ELM WANTED.

A Few Car Loads of good ROCK ELM, cut into 1 1/2, 2, 2 1/2 and 3 inches thick, 12ft. length preferred.

DUFRESNE & JODOIN,

Lumber Dealers,

408, St. Joseph Street, Montreal.

SAW MILLS AND TIMBER LIMITS

WITH Logs, Lumber, Store Goods, &c FOR SALE

In the District of Algoma, Ont.

Eighty-Five Square Miles (54,400 Acres) of Limits, Good Pine, First-Class Water Power, Large New Water Mill, Steam Mill, Store and Dwellings.

Canada Pacific Railway now running through part of the property.

For full particulars address:—

WILLIAMS & MURRAY, 1714 GODERICH, ONT.



Notice to Contractors.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Post Office, Barrie, Ont." will be received at this office until TUESDAY, the 7th of AUGUST next, inclusive, for the erection of

POST OFFICE - AT - BARRIE, ONT.

Plans and specifications can be seen at the Department of Public Works, Ottawa, and at the office of Messrs. Kennedy, McVittie & Holland, Architects, Barrie, on and after TUESDAY, the 24th July next.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied and signed with their actual signatures.

Each tender must be accompanied by an accepted bank cheque, made payable to the order of the Honorable the Minister of Public Works, equal to five per cent. of the amount of the tender, which will be forfeited if the party tendering declines to enter into contract when called on to do so, or if he fails to complete the work contracted for. If the tender is not accepted the cheque will be returned.

The department will not be bound to accept the lowest or any tender.

By order, F. H. ENNIS, Secretary.

Department of Public Works, Ottawa, July, 1882. 111b

Extensive Sale

OF VALUABLE

TIMBER LIMITS

For the purpose of determining the partnership existing between the undersigned, they will offer for sale by PUBLIC AUCTION at the RUSSELL HOUSE, in the CITY OF OTTAWA, on WEDNESDAY, the 12th day of SEPTEMBER next, at TWO o'clock in the afternoon (unless sooner disposed of by private sale), the following Valuable Timber Limits, or Licenses to cut Timber, in the Provinces of Quebec and Ontario:—

PARCEL I,

Province of Quebec.

License	No.	Year	River	Area	Sq. Miles
No. 85 of 1841-82,			River Maganicippi,	Area 25 sq. miles.	
" 86	do	do	do	do 50	do
" 87	do	do	do	do 50	do
" 88	do	do	do	do 50	do
" 89	do	do	do	do 50	do
" 90	do	do	do	do 30	do
" 91	do	do	do	do 17 1/2	do
" 92	do	do	do	do 25	do
" 93	do	do	Ottawa & Maganicippi,	do 50	do

Total area 348 1/2 sq. miles

PARCEL II,

Province of Ontario.

No. 129 of 1882-83,	River Ottawa,	Area 22 1/2 sq. miles
" 130	do	do 57 do

Total area 79 1/2 sq. miles.

Terms and conditions made known at time of sale. Further information may be obtained on application to JAMES ADAM, ESQ., Manager St. Lawrence Docks, Quebec, JOHN POUPRE, ESQ., Crown Timber Office, Ottawa, JOHN WALKER, ESQ., Manager Quebec Bank, Toronto, or at the office of the undersigned in Pembroke.

A. & P. WHITE.

WATER POWER

TO LEASE.

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.

R. & G. STRICKLAND
1d88 LAKEFIELD, ONT. w1619

A RARE CHANCE!

Valuable Steam Saw-Mill

FOR SALE.

The Waba Creek Steam Saw Mills, situated on the Madawaska River, one mile from Arnprior. Capacity of Mill, Fifty Thousand Feet of Lumber per Eleven hours. Capacity of Booming Pond, Thirty Thousand Logs. Has Sidings through piling Grounds connected with main line of Canada Pacific Railway. The Mill is in good repair, having only run a short time, and is well found in all appliances required to run it to the above capacity. There is also a good water power connected with it from the Waba Creek, and good stabling, Barn, Boarding House, and other buildings. For information, price and terms, apply to John Robertson, 281, Seigneurs Street, Montreal, or to James McCuan, Arnprior, who will show intending purchasers the whole property, or to

J. T. LAMBERT,
Lumber Broker, 110 Wellington St., Ottawa.

AUCTION SALE

OF VALUABLE

Timber Limits

I will offer for sale by Public Auction, on account of whom it may concern, at the Grand Union Hotel, in the CITY OF OTTAWA, on TUESDAY, the 28th day of AUGUST next, at the hour of 2.30 o'clock in the afternoon, Timber Limits as follows:—

PARCEL No. 1.

License—	No.	Year	River	Area	Sq. Miles
No. 389 Kippewa, Season 1882-83,				60 sq. miles.	
390	do	do	do	40 do	
391	do	do	do	20 do	
392	do	do	do	6 do	
393	do	do	do	50 do	
397 Temiscamingue,				do 60 do	
355	do	do	do	do 0 do	
406 River Ottawa,				do 25 do	
386	do	do	do	do 0 1/2 do	
400, Coulonge & B River				do 7 do	

PARCEL No. 2.

401, North of River Coulonge	30	do
402 do do do do	30	do
403 do do do do	30	do
404 do do do do	30	do
406 do do do do	30	do

PARCEL No. 3.

387, River Ottawa,	do	17	do
388 do do do do	do	43	do
392, River Coulonge,	do	50	do
392 do do do do	do	50	do

PARCEL No. 4.

Upper Ottawa,	License	1872-4,	No	431,	containing	Miles.
do	do	do	532	do	do	58 1/2
do	do	do	533	do	do	49 1/2
do	do	do	534	do	do	47 1/2
do	do	do	535	do	do	52 1/2
do	do	do	537	do	do	48 1/2
do	do	do	537	do	do	50 1/2
do	do	do	538	do	do	47 1/2

PARCEL No. 5.

do	do	do	507	do	50
do	do	do	508	do	47 1/2
do	do	do	509	do	40
do	do	do	510	do	28
do	do	do	511	do	26

Also half interest in Licenses Nos. 218 and 344, season 1882-83, 87 square miles.

Timber cut on Kippewa Limits was sold in 1880, 30c; 1881, 32c, and 1882, 32c. There is also a farm in connection with the limits which will be sold with a quantity of Clear Mess Pork, Flour, Oats, Beans, Hay, Horses and other rigging requisite for shantying.

TERMS—Cash, or one-third cash, one-third in 6 months and one-third in 12 months, with interest at 6 per cent., approved notes. For further particulars apply to the Crown Timber Agent, Ottawa, or to

R. C. W. MacCuaig, Auctioneer.

F. E. DIXON & CO.

MANUFACTURERS OF



STAR RIVET LEATHER BELTING
70 King Street East, Toronto.

SPECIALTY:—Belting made from J. B. HOYT & Co's American Oak Tanned Leather. Send for Price List and Discounts.

TUERK'S

WATER MOTOR.

Patented November 8th, 1881.



View of Tuerk's Pressure Motor, with Tuerk's Improved Governor Attachment.

For running Sewing Machines for families or for manufactories; also, for running Dental Lathes and Engines, Telephone Generators, Coffee Mills and Reosters, House and Church Organs; also for running one Printing Press or six, at the same time. Paper Cutters, Sausage Machines of any make or size; GRAIN, FREIGHT OR PASSENGER ELEVATORS, Straw Cutters, and all kinds of Machinery by Water Power.

HYDRANT PRESSURE.

Cheaper, Quicker and Safer than Steam.

Over Fifty Motors of other makes have been taken out and replaced with the TUEK MOTOR; among the list are the Backus, the Sabin, the Little Giant, the Hayward, Clark's Piston Engine, and others.

Names of a few who have taken out Backus Motors and put in the Tuerk Motor in their place:

- O. W. Meikel, Indianapolis, Ind.
- Columbus Telephone Co., Columbus, Ohio.
- James Egan, Chicago, Ill.
- H. C. Hawkins, Cleveland, Ohio.
- Printing Office, Hannibal, Mo.
- A. Solmens, Hat Manufactory, So. Norwalk, Ct.
- Lake Shore & Mich. So. R.R. Shops, Elyria, O.
- Index Printing Office, Evanston, Ill.
- Republican, Johnstown, N. Y.
- Tribune, Salt Lake, Utah.
- Alton Printing Co., Alton, Ill.
- A. F. Worthington & Co., Cincinnati, Ohio.
- Lemon & Co., Waverly, N. Y.
- Braun & Jones, Cedar Rapids, Iowa.
- Gates, Douglas & Co., Cedar Rapids, Iowa.
- Village of Rutland, Rutland, Vt.
- W. L. Randall, Chicago, Ill.
- A. J. Stoll, Sandusky, Ohio.
- Billite & Wayland, Chillicothe, Ohio.
- R. A. Morrow, Springfield, Ohio.
- R. Putnam, Chillicothe, Ohio.
- N. Shelton, Omaha, Neb.
- H. J. Lewelling, St. Helena, Cal., and others.

Do not fool your time away trying other Motors, but send for the Tuerk Motor, which is warranted to do better work with less water than any other Motor or Water Engine made.

Send for Catalogue, and state what you want to us,—give full particulars and Water Pressure per square inch.

TUERK BROS. & JOHNSTON,

86 and 88 Market Street, Chicago, Ill.

WISE \$500 Reward!

People are always on the lookout for chances to increase their earnings, and in time become wealthy; those who do not improve their opportunities remain in poverty. We offer a great chance to make money. We want many men, women, boys and girls to work for us right in their own localities. Any one can do the work properly from the first start. The business will pay more than ten times ordinary wages. Expensive outfit furnished free. No one who engages fails to make money rapidly. You can devote your whole time to the work, or only your spare moments. Full information and all that is needed sent free. Address Stronson & Co., Portland, Maine.

We will pay the above reward for any case of Liver Complaint, Dyspepsia, Sick Headache, Indigestion, Constipation or Costiveness we cannot cure with West's Vegetable Liver Pills, when the directions are strictly complied with. They are purely Vegetable, and never fail to give satisfaction. Sugar Coated, Large Boxes, containing 30 Pills, 25 cents. For sale by all Druggists. Beware of counterfeits and imitations. The genuine manufactured only by JOHN G. WEST & CO., "The Pill Makers," 81 & 83 King St. East, Toronto, Ont. Free trial package sent by mail prepaid on receipt of a 3 cent stamp. ORMOND & WALSH, sole authorized Agents for Peterborough Ont. w16d11253

PLANTING IN WASTE PLACES.

The following paper by Bernhard E. Fernow, of Slatington, Pa., is taken from the *American Journal of Forestry*:-

Most of the methods recommended and described in American papers for planting forests, presuppose that the ground to be planted is arable, or at least workable with the spade. This may be all right for the Prairie States; yet there are probably on every farm in the mountainous regions more waste places than anywhere else, that will never pay to get the stones out—that won't grow any grass of value, and that defy all cultivation. There are others which are too wet, and on account of their nature drainage for agricultural use is impossible and unprofitable; others again, which on their dry, shifting sand will not bear any crop.

These are the very places to which, in time, the forest in every well settled country will be more or less confined, the better portions needed for farming purposes; and fortunately enough, not only can such places be made to bear forests, but, being so used, they are improved, and often after some time, gain in value, even for agricultural crops.

To find out cheap methods for covering such places with a tree growth is therefore a task not to be neglected.

With this object in view, I give the following description of a very valuable instrument, to be used in places where the spade is not easily applied, or where it is an object to quickly cover a large area. It is especially applicable for one and two year-old-plants (in most cases the best age for planting), and is most extensively used in Germany, for the inforcement of the large heaths, in the sandy plains, and in mountain lands. Millions of young pines are planted every year in this way.

This instrument consists of two parts: a shoe made of iron with one rounded and one flat side, tapering towards the end, in shape like a half cone, so that two of these shoes placed together, with flat sides, would represent a perfect cone, or nearly so; in the centre (somewhat nearer the flat side) of the base is a threaded hole to receive the handle, which consists of a five-eighths inch rod, three and one-half feet long, with a squarely set wood haft. The shoe may be made eight inches long and three and one-half inch at the base, and to make it somewhat lighter it may be cast with a square oblong hole half way through the back.

The *modus operandi* is to thrust this iron dibble into the ground where the plant is to stand, somewhat open up the hole thus made, by moving the dibble back and forth; withdraw, put the plant into the hole to the straight side, thrust the dipple again into the ground one to one and a half inch back of the first hole, somewhat slanting towards the bottom of this, press forward to fasten the plant in its stand; then by a few irregular thrusts close the last made hole and proceed to the next place.

The original instrument had a short, rounded handle, and the whole operation was done by one man, who could dispose of 1,200 to 1,700 plants, according to locality.

Where the planting is done on a large scale, the work progresses most expeditiously, if an active boy, or still better as my experience goes, a woman, serve two planters with the plants. The planters manipulate the dibble, whilst the boy with the plants, in a mixture of loam and water (to keep the roots not only moist, but also heavy for better dropping into the plant hole), holds the plant in the hole, first serving the one and then the other. With this force, if accustomed to the work, 5,000 plants may be disposed of per day, or as for such planting of yearlings, at least 7,000 plants should be set out per acre. The planting will cost from \$4.50 to \$5.50 per acre.

FOREST PRODUCTS AT CHICAGO.

The Chicago Times says that a comparison of the total shipments of lumber for this season shows a decline, as contrasted with the number of feet received during the same period of last year, of over 200,000,000 feet. The falling off is said to be due to a disagreement between shippers and dealers with regard to prices, and there is a general belief that while the shipments have fallen off the production has been

about the same, and that great piles of it are held at the saw mills to await a favorable market. In spite of the decline in the amount of shipments, the prices remain about the same as last year, the reason being, as given by the secretary of the exchange, that dealers think the production has been about the same as last year, and, farther, that they could not afford to compete with Mississippi river prices if high rates were maintained. The effect of the decline in lumber shipment has been to force a good many vessels in carrying other freights, and there has been an increase in the receipts of slabs, bark, cedar posts, railway ties, and telegraph poles. The lumber receipts of last year up to the 7th of July, were 806,117,000 feet, against 599,869,000 during the same time this year, leaving a difference of 209,248,000 feet in favor of the season of 1882.

The following statement shows the receipts of forest products at this port as reported at the custom house from January 1st to July 1st, 1883:

Lumber feet.....	642,797,000
Shingles.....	389,105,000
Lath pieces.....	15,745,000
Wood, cords.....	9,741
Cedar posts.....	1,432,459
Cedar railway ties.....	608,763
Cedar telegraph poles.....	78,481
Bark, cords.....	3,177
Slabs, cords.....	9,370
Spiles.....	120
Lumber (hardwood), feet.....	740,000

HOW LINE SHAFTHING SHOULD BE CARED FOR, AND THE LOAD.

In all buildings of large dimensions the foundations are more or less defective, to the extent of settling down and permitting a very considerable variation, from time to time, from a true level. This is not the case in mills of all kinds, whether large or small, than in government and other large buildings, the bases for which have been put in without regard to cost, or any other economic consideration. So universally is this the case, that it may almost be considered a general rule from which there is very little deviation.

In running all power machinery, close attention to its condition is imperatively demanded; at least once a month, the foreman, or some other competent expert, should carefully inspect all the shaftings, attentively noting its condition, whether truly level or more or less out of line, and also the journals and their boxes, examining the babbit metal in them, and if there is undue wear or cutting, examine into the cause, and proceed without any delay whatever to remedy any defects that may be discovered.

The shafting, journals, hangers and pulleys are all necessary intermediates between the steam or water power and the productive machinery. On their good condition depends all the prosperity of establishments driven either by steam or water, and the skill, care and attention that should be exercised in properly placing them and caring for them afterwards ought to be as great as in the construction of the building itself, or the selection of the tools and machinery that make the product. It is imperatively necessary that the shafting should not only be strong enough to sustain the weight of the pulleys, but to withstand the strain of belts without springing, as well as to hold up the weight between supports placed at considerable distances, on a main line 10 or 12 feet apart. If the shaft does spring at all, it is instantly out of line, the boxes soon wear out, and the iron journals heat and cut, and while the friction is excessive, it is also a wasteful destroyer and absorber of valuable money-costing power, all of which may be needed to operate the machinery of the concern, even when none is wasted. The adjustment of bearings, etc., of shaftings, is a matter of much importance. If useless bearings are placed, it is at the expense of much additional power wasted in friction. The matter of size of shafting and distance between bearings are all parts of a great whole, that has never received the attention its importance deserves. The object of the millwright is of course to have his shafting heavy and steady enough to withstand all the strain and pull to which it may be subjected, and have plenty of strength left over and beyond that

limit. But all this weight, whether needed or useless, must be kept in motion by the motive power, at as great an expense in proportion to the force exerted as the working machines themselves.

The lighter the shafting can be made and used, to obtain all the torsional or twisting non-bonding strength needed, of course the easier it is to be moved. This, of course, includes all the attachment of pulleys, hangers, etc. Much progress has been made in this direction within the past twenty five years, but much yet remains to be accomplished in this direction. Cast-iron pulleys are not only much lighter than in former years, but improved processes of swaging have produced a wrought-iron article that leaves but little to be desired in this way. Both wooden and paper pulleys are also made now, of greatly improved construction.—*Milling World*.

TAPER GROUND SAWS.—THIN SAWS.

The Wood-Worker contains the following contribution by M. Coval:-

The majority of mill men and others know but little of the changes that have been made in saws in the last twenty-five years. When the circular saw was first introduced no one knew anything about hammering them open; it was thought the stiffer the plate the better. Then they were all made straight gauge. Following came the taper ground saw, which has been in use twenty years, and is still in use by the majority of mills. Now I would like for some one to bring proof that it is better to have the plate thicker in the centre than elsewhere, and convince me of any benefit to be derived therefrom. It would be much easier to convince me that I am wrong than to convince the great number of mill men who are using taper saws that they are wrong. Since the motion of circular saws has been increased, the extra steel in the centre is a detriment instead of a benefit. It is well known that a saw will not run well when it is stiff in the centre. I would by all means prefer it thinner there than otherwise. My reasons are these: First, a straight saw will run with less set; second, it requires less hammering to put the saw in good condition for running. The less set, the less power it takes to drive it, the lighter it cuts, and the less liable it is to buckle and dodge. Everything that will lighten the running of a saw should be sought for by all interested in its use. For a long time there were but few changes made, but within the last five years there has been much discovered that nearly doubles its capacity. And other thing, when better understood, will add to this efficiency twenty-five per cent. more than is now realized by the majority of mills.

Many mills are now running thinner and straight gauge saws. Some are making a success of straight 8-gauge 60-inch, and some do well with 10-gauge 72-inch. I have faith and confidence that five years hence 10-gauge saws will be run with as much success as 8-gauge saws now are.

This using of thin saws is a subject of interest to all persons engaged in the manufacture of lumber. Timber is becoming too scarce and expensive to waste 25 per cent. of it in sawdust. All that can be saved by the use of thin saws over thick ones is clear gain. Many try to run thin saws, but fail for lack of knowledge how to run them and how they should be made. There are several causes why mill men are not running saws three or four gauges thinner than those now in use. Thin saws can be run if they are properly handled. One prominent cause of their failure to run satisfactorily is in not having the proper number of teeth. Another cause is lack of skill to dress the teeth. It is not all in filing; much depends upon the hammering of the saw. I have seen 10-gauge 72-inch saws run in hardwood and carry as much feed as was carried ten years ago in soft-timber by 8-gauge, and with good results.

A BONANZA IN LOGS.

L. Hirsh, a New York importer of fancy woods, has recently returned from a trip to Europe in search of desirable foreign veneer material. He found a large stock of old logs in the Liverpool, Eng., market, many of which

have been stored from two to 15 years, being in consequence regarded worthless by the expert importer. The London market was destitute, and has almost ceased to be a centre for the shipment of foreign walnut and veneers to the American markets. At Paris the Germans had made a raid on all the available veneers, and in March the market was absolutely bare, and what came in April was seized by dealers with hungry avidity. In Marseilles there was a surplus of inferior burls, and only a few choice lots, which were held at very high prices. Some of these it required considerable hanting to secure at a reasonable figure. By over-hearing a conversation, while making a railway trip from London to Paris, via New Haven and Dieppe the importer was put on the track of some desirable trees in the south of France. They were reached by going from Bordeaux to Bayonne, and thence to the little village of Perigoux, in a wild, mountainous forest, a spur of the Pyrenees, far from railroads or other avenues of transportation. Lying within a radius of seven or eight miles from the town were the trees. Sixteen huge logs were obtained for. Fifteen of them were shipped away with considerable difficulty, but the largest and biggest trunk, in the language of the importer, "was a terror." When felled, it measured from the butt to the first limb 12 feet in length, and seven feet in diameter, with a wart or burl on it weighing about a ton. The whole log weighed seven tons. It was taken to the nearest railway station by 22 horses, arranged in tandem teams, and 40 men, and shipped to Paris. Eighteen large Normandy horses were used in transferring the log from one depot to another at Paris, the procession attracting crowds and calling forth copious newspaper mention. The manager of the Jardin des Plantes, or Bureau of Agriculture, viewed the log and visited its owner, and wanted it placed on exhibition as a great curiosity. He took the owner's refusal sorrowfully, and regretted that the New Yorker was not a Frenchman so that he might receive the red ribbon of the Legion d'Honneur, to which he would have been entitled for the discovery of the giant log. The latter was transported to Havre, and at last accounts no steamer that would take it to America had been found. The importer pronounces the log a great beauty as well as a monster, and says it shows fine figure and color at both ends. It is estimated to cut about 50,000 feet of veneer.—*Northwestern Lumberman*.

A Tow.

The largest tow of lumber barges ever seen on Lake Champlain recently cleared from Rouse's Point for Whitehall; pulled by the steamer R. H. Cook. The boats, (called canal boats on Lake Champlain), numbered 62. At Gravelly point they met the steamers Tisdale and Grand Isle going north with a tow of 40 boats, and the scene looked decidedly like business. At Plattsburg the R. H. Cook took on 24 boats more, making 86 in the tow. Such a string as that would make even the Marinette Barge Line Towing Company protrude its eyes with wonder. Yet one of the big barges on Lake Michigan would probably swallow a whole school of Lake Champlain pollywogs.—*Northwestern Lumberman*.

Advice to Mothers.

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain of 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.

A VALUABLE DISCOVERY.—One of the most valuable discoveries in the medical science, for the benefit of mankind, was made when Burdock Blood Bitters were invented. This medicine positively cures all diseases of the Liver, Kidneys, Stomach, Skin and Blood. 25,000 bottles have been sold during the last three months.

Chips.

MORE than 3,000,000 trees were planted in Great Britain during the season of 1882.

A MANISTIQUE, Mich., paper says that the loading of lumber barges does not seem to make much impression on the piles at the mills there, and stock is fast accumulating.

THE pulp mill of Messrs. Angus & Buck, at Angus, on the St. Francis river, 18 miles from Sherbrooke, is making quite a village of what was hitherto a wilderness.

LATELY there has been a jam in the Muskegon, reaching from Hersey, Mich., towards Big Rapids, 20 miles by the river. It was represented to contain \$1,000,000 worth of pine.

THE Port Arthur despatch of the *Winnipeg Times* under date July 9th, says:—The schooner Woodruff arrived at seven a. m. with three hundred and fifty thousand feet of lumber for W. Latch, Winnipeg.

THE *Emerson International* of July 11th says:—A drive of ten million feet of logs is now on its way down the river from Red Lake. It will not reach this point for a couple of weeks or more.

DULUTH and its immediate vicinity has 13 saw mills, with a daily capacity of 1,165,000 feet of lumber. This year the expected cut will be, according to estimate, 142,000,000 feet as compared to 84,218,000 last year.

THE *Emerson International* of July 11, says: Something like 5,000,000 feet of lumber is being shipped from the American markets for the O. P. R. line west. All this lumber will be transhipped here, which will give employment to a considerable staff of men for some time.

THE department of the interior has caused to be posted throughout the Puget Sound country a general warning against starting fires in timber on public lands, under pain of prosecution. The Northern Pacific road has made the same announcement regarding its lands.

The borers in the maples have been attended to, a new pest has appeared in certain parts of the country. The balsam trees are now attacked, the trunks being infested with millions of small insects, which threaten to destroy the trees unless attended to.

ABOUT the last concern on earth which it would seem possible to run with prison labor is a saw mill, and yet Texas has tried it. Recently a saw mill near Hunstville in that state, while being conducted on this method, was blown to atoms by a boiler explosion.

THE *Winnipeg Times* of July 7th, says:—A second raft of 400,000 feet of timber has arrived at Selkirk for the North-West Lumbering Company. It was towed by the Colville, and the rough weather experienced made it extremely difficult to get the raft safely into port.

THE Tittabawassee boom company was compelled to suspend operations again recently, owing to high water, which rendered work impracticable if not impossible. How long this condition of things will last it is impossible to predict, but officers of the company say that the probability is that the suspension will last ten days, or two weeks.

In Crawford county, Kansas, there are two plantations of 500 acres each. Catalpa is the favorite tree, and is being cultivated for railroad ties by the Fort Scott & Gulf Railway company; a block of 100,000 seedlings planted four years ago range from 10 to 15 feet in height; in circumference the trees range from 8 to 11 inches.

THE Cobourg *Sentinel-Star* speaking of the returns of that custom house for the past fiscal year says:—Amongst the free goods imported—raw material for our manufacturers—we find the following figures:

Walnut lumber	\$3,126
Pitch Pine	7,835
Mahogany	8,153

A REPORT comes from Alpena that 7,000,000 feet of pine was blown down by a wind storm near Hubbard Lake. At the rate at which the pine stumpage is held now, this would involve a loss of over \$30,000. The destruction in the forests is said to have been extensive. Roads are also reported to be rendered impassable on account of being filled with fallen trees. In some places the trees are piled seven deep on the road.

CLOTHES pins are made of white birch and beech. The logs are sawed by three operations into blocks five inches long and three-quarters of an inch square. In this shape they are fed out of troughs into automatic laths, each of which turns out eighty rounded pins per minute. With equal rapidity the knives of a slotting machine, set to work like a circular saw, bite out the sloping slot of each pin.

THE Indianapolis Wooden Dish Company has just perfected a new machine for making wooden dishes. This machine takes the veneer from the veneer mill, cuts out the blank, shapes and scores it, folds it up, and takes the wire from the spools forming the staple, drives the staple at each end of the dish, drives and clinches it, and throws the dishes off from the machine complete, at the rate of sixty per minute.

THE *Lumberman's Gazette* of July 18, says:—A river jammed full of logs for forty miles would doubtless be a matter of astonishment and great interest to the millions of people who witness the daily consumption of lumber in their immediate vicinity, but who have no adequate conception of its method of production, and yet it is no common sight in Michigan; and the river from Alpena to Hillman is in just such a condition at present. Before snow flies, however, this floating wealth will have been submitted to the dissecting and separating process of the circular, gang and edger, and probably be undergoing the distributing process which precedes consumption.

THREE millions and a half feet of yellow pine lumber were recently sold in New York within a week, on three contracts. A half million feet were taken for a building to be erected by the Trinity church estate, at \$25 per thousand delivered. The contractors for the new building to be erected on the site of Booth's theater took an equal amount at the same figures. The third contract for two and a half million feet was made by the Franco-American Trading Company, to be used in the erection of 112 buildings on the isthmus at Panama for the great Leaspee Canal company. At this rate of consumption southern pine mills will be under no necessity of shutting down, trade will remain active, and good prices be assured.

MR. SAUNDERS, of London, the well known entomologist, draws attention to the rapid increase of an insect injurious to maple trees. They prefer the soft or red maple, laying their eggs on the bark. The larvæ hatched out in a few days, penetrates the bark and feeds upon the sapwood, very much to the injury of the tree. Mr. Saunders recommends coating the trees immediately with a mixture of soap and a solution of washing soda or lye, made about the consistency of ordinary paint, and applying it with a brush from the base of the trees upwards to the first branches. The soap solution may be made either from soft or hard soap—if the latter it should be warmed so as to melt it, when it will be the more easily mixed with the solution of washing soda or lye. To prevent increase, the remedy should be applied at once.

THE *Sherbrooke Examiner* says:—Angus, recently a wilderness, is being made to blossom as a rose. Instead of what was a few months ago an almost unbroken forest, it is fast assuming the proportions of a thriving village. The place is named after the senior partner of the firm of Angus & Buck, who have built a splendid pulp mill here, besides saw mill, blacksmith shop, and nearly a dozen dwellings, having also cleared about 50 acres of land. The mill is built on the bank of the St. Francis river, 18 miles from Sherbrooke, on the line of the Quebec Central Railway, in the midst of a wooded country, the timber of which they are commencing to use up in the manufacture of wood pulp for making "news" and other papers. It is fitted up with the most modern machinery and employs some sixty hands which gives the place a decidedly busy appearance. The works are under the able superintendence of Mr. A. Ayer, a gentleman from Ontario, while Mr. Buck, one of the firm, is usually to be found about the works looking after its interests. They are now turning out about 12 tons daily which finds a ready sale, and this production will soon be largely increased. They will very likely erect a mill for making paper themselves another year.



THOS. GRAHAM & Co., File Manufacturers 150 FRONT STREET EAST TORONTO.

FILES FOR SALE. FILES RE-CUT.

THE *Winnipeg Commercial* says:—The lumber business is exceedingly quiet. Beyond the supplies required for a few considerable contracts now on hand, there is very little demand. The mills are getting to work, but there is no doubt that if the logs taken out last winter are cut into lumber the supply will be far in excess of the demand. Large quantities are being shipped into the country via Port Arthur, one firm alone bringing in 2,500,000 feet for its own use in building elevators. Had the local dealers shown a disposition to sell at reasonable figures this large order might as well have been supplied by mills in the North West, and it would have made a big hole in the surplus stock which will be left on hand this fall.

A EAU CLAIRE dispatch says that the log drives in the Chippewa and Black River pineries have been virtually abandoned, and the crews have returned to seek their employment. The water in the main rivers has receded to such a low stage that to keep the crews at work would be a mere waste of time and useless expenditure of money. The drives on the Red Cedar have proved the most successful of any point in Northwestern Wisconsin, but have been the most expensive. Unless the usual September floods are heavy, there will be a shortage of logs for the Chippewa mills, and they will be compelled to shut down much earlier than was calculated. There is now at least 250,000,000 feet of last winter's cut hung up, which cannot possibly be removed till there comes a heavy natural raise.

THE Port Arthur *Herald* of July 11th says that WM. MARGAON, Government Timber Inspector, returned home this morning. He has been up in the neighborhood of Pine and Jarvis rivers, where he is having surveyed for the Ontario Government, two townships. The surveyor expected to be through in about six weeks, but it will take him considerably longer than that, owing to the obstacles in the way. He reports large forest fires raging in the neighborhood of Pine, Pigeon and Jarvis rivers, and the amount of good timber that has been destroyed is large. The fire seems to have come from the American side of the boundary line. This is not the first year that fires have been through the forest in this neighborhood, as the timber used to be very large, and it can be seen where the fires have gone through some years previously. The water in the different rivers is very low, and is much against the driving of logs.

Orange Boxes.

The only manufactory in the United States of orange and lemon boxes, is located on the borders of Lambert Lake, Maine, five miles east of Vancoboro, and turns out some 3,000 boxes daily, most of which are shipped to Italy and other foreign countries. Two million feet of hard wood timber are consumed yearly. The logs are taken into the mill from the lake, cut into necessary length (one inch thick) then stacked to season, and afterward placed together and secured for transportation. Arriving at its destination, each piece is sawed twice, making three pieces—two for ends and one for the middle of each box. For the top, bottom and sides of the box the logs are sawed 20 inches long, and then placed in the steam room, remaining three hours; each piece is then placed under the peeler, whence it issues 3-16 of an inch thick. It is separated to the desired length, and then placed in seasoning or drying houses. The pieces thus prepared are shipped in bundles, being put together where they are used.

PACIFIC COAST CEDAR.

A correspondent of the *Northwestern Lumberman* says:—A well informed gentleman who has made a visit to Alaska, brings back a specimen of the yellow cedar growing there, with the following information. The forests of Southeastern Alaska are made up of three species of evergreens, all of good size, growing closely together and covering the slopes of the mountains up to the height of about 2,000 feet, the most important of which is the yellow cedar or cypress (*Cypressus Natlatensis*) which grows to a height of 150 feet, with a diameter of from three to five feet. The branches are feathery and drooping, like those of the California *Abocedrus*, with more delicate plumes. The wood of this tree is the best the country affords, and one of the most valuable on the Pacific Coast. The specimen at hand shows it to be pale yellow, close grained, durable, and admisible of a good polish. To these qualities is added a pleasant fragrance, like that of sandalwood. Some of it has been sent to China and made up into fancy boxes, returning here as sandalwood boxes. Some three or four ships have been built of yellow cedar, and a few thousand feet at a time have been sent to Portland and San Francisco. It deserves to be much better known, not only by shipbuilders, but carpenters and furniture makers. The Indians make paddles of it and weave matting and coarse cloth from the inner bark of the tree, which is quite durable and of a brown color. It is the favorite fire wood of the coast region. It burns freely and does not last long. The open hearth has to be screened with a wire netting to keep the cinders from reaching the floor. The timber is very durable, the largest of them lasting for centuries. There are large forests of this species reaching from Vancouver Islands to Sitka. Other species are mixed with it. The fragrance of this wood is retained indefinitely. —Bing.

TREES BY THE ROADSIDE.

There are miles of road that are dusty and hot in summer which might be greatly improved by the setting of trees upon each side. In narrow streets the trees had better be set inside the wall, but where the streets are wide and the sidewalk wide as well, then the trees may be set between the side walk and the street. They should not be set too near together, 40 to 50 feet is near enough when they get large. A good way is to set them every 25 feet, and when they get large enough to touch each other let every second tree be cut out, and that will leave room for the others to grow and spread. The best trees to set in streets are the American elm, sugar, scarlet, silver and Norway maples, American lime or bass. When there is little or no soil a large hole should be dug and loam filled in. Trees should be of at least medium size when set, and should be protected by stakes or otherwise. Set only good trees. Better a few good trees from the nursery, well taken up, than many poor ones from the woods and pasture with poor or mutilated roots. Remember that what is worth doing is worth doing well.

REST

not, life is sweeping by, go and dare before you die, something mighty and sublime leave behind to conquer time." \$50 a week in your own town. \$5 out of free. Norisk. Everything new. Capital not required. We will furnish you everything. Many are making fortunes. Ladies make as much as men, and boys and girls make great pay. Reader, if you want business at which you can make great pay all the time, write for particulars to H. HALLITT & Co., Portland, Maine.

Market Reports.

TORONTO.

From Our Own Correspondent.

JULY 23.—There is little change to note since my last letter to the journal, and but little lumber has left our docks of late, all of them devoted to the storage of lumber being filled to their utmost capacity.

Shipments by carload from Midland to western points continue fairly active. The above line in connection with the C. V. R. R. have become favorite roads with the lumbermen over which to ship to points in western Ontario, and whenever shippers can reach consignees by this route they do so. The cause for this is easily accounted for. The managers of the former road have endeavored by all means at their command to encourage shipments of lumber over their line, and extremely liberal in granting low rates to lumbermen and their inspectors for travelling over their entire system, and the C. V. R. R. company have emulated the same spirit by promptly forwarding all shipments consigned to their care. In marked contrast to this is the conduct of the N. & N. W. R. R. company, who never seem contented until they have squeezed out the last available dollar from the lumberman, without whose patronage the road would be nothing. Were it not for the large amount of money paid into their coffers by the lumbermen of the past and present the bond holders of that line would have nothing left to-day as security, but the right of way and two streaks of rust, and yet those are the men who have to pay \$150 per year for the privilege of passing over their road to look after the material that keeps the company's rolling stock employed, and this smallness is more pronounced in their management to-day than at any time of the road's history.

Now in regard to the retail trade here, I have visited most of the dealers, and nearly all agree on one point: quietness all along the line, and yet they say we cannot afford to break on prices, as we could not replace stocks much, if anything, below the cost of our present stock, this is undoubtedly true, although some sales of mill run stocks have been lately made at fully \$1 per M less than would have been accepted three months ago, but the bulk of such stocks are only fit for the Eastern market, being comprised largely of 13 feet and 15 feet lengths. XXX shingles are scarce and prices have slightly stiffened, lath is more plentiful and some lower in car load lots.

Table listing prices for Mill cull boards and scantling, Shipping cull boards, various sizes of cants and joists, and cutting up planks to dry.

Table listing prices for 1 1/2 inch flooring, dressed, rough, and undressed, and other lumber products.

MONTREAL.

The Gazette of July 27th says:—Dealers report a better local enquiry during the week for both hard and soft kinds, but there are complaints on the part of buyers of the new supply not being sufficient to season to suit their requirements. There has been very little change in values. The shipments of deals from this port continues on an active scale, and from the opening of navigation up to date has been the heaviest in the history of the trade. Deal charters to U. K. ports are reported at 75c to 70c steam, and last engagements of lumber to the River Platte were at \$15@15.50 sail. There has been a sale of 36,000,000 feet of lumber, the

total mill cut of Blodgett & Byrns, of Muskegon, Mich., to Chicago parties on private terms.

QUEBEC.

The Chronicle of July 20 says:—The market for timber continues dull and the only sales we have heard of are two parcels of white pine of only ordinary quality and about 50 feet average at about 19 cents measured off.

In hardwood we have not heard of any transactions.

DEALS.—40,000 pine deals, Montmorency 1883 sawing, have been sold at \$108, \$72, \$56, \$24. for 1st, 2nd, 3rd, and 4th, respectively f.o.b. bateau at mills.

BOSTON.

Cotton, Wool and Iron says:—General trade is moving along with the usual midsummer quietness. Stocks are light, but there is not much disposition to largely anticipate future wants. Eastern lumber is arriving pretty freely. Spruce boards are selling rapidly, except narrow, coarse lots which are dull and weak. Eastern pine are fair at steady prices. Laths are quick of sale. Western lumber is arriving freely and is generally having a fair sale. Poplar and ash have fallen off in price, with a large supply. Choice lots of cherry command good prices. Walnut is dull, with little of the very best arriving. Western pine is quiet, with a limited demand. Southern pine is very quiet, with prices for timber very low. Flooring and step plank are quiet and unchanged.

CANADA PINE.

Table listing prices for Selects, Dressed, Shelving, Dressed, 1sts, 2nds, Dressed Shippers, Dressed Box, Sheathing, 1st quality, 2nd.

ALBANY.

Table listing prices for Pine, clear, 4 M, Pine, fourths, Pine, selects, Pine, good box, Pine, 10-in. plank, each, Pine, 10-in. plank, culls, each, Pine boards, 10-in., Pine, 10-in. boards, culls, Pine, 10-in. boards, 16 ft., 4 M, Pine, 12-in. boards, 16 ft., Pine, 12-in. boards, 13 ft., Pine, 1 1/2 in. siding, select, Pine, 1 1/2 in. siding, common, Pine, 1-in. siding, select, Pine, inch siding, common, Spruce, boards, each, Spruce, plank, 1 1/2-in., each, Spruce, plank, 2-in., each, Spruce, wall strips, each, Hemlock, boards, each, Hemlock, joist, 4x8, each, Hemlock, joist, 2x4, each, Hemlock, wall strips, 2x4, each, Ash, good, 4 M, Ash, second quality, 4 M, Cherry, good, 4 M, Cherry, common, 4 M, Oak, good, 4 M, Oak, second quality, 4 M, Basswood, 4 M, Hickory, 4 M, Maple, Canada, 4 M, Maple, American, per M, Chestnut, 4 M, Shingles, shaved, pine, 4 M, 2nd quality, extra, sawed, pine, clear, cedar, mixed, cedar, XXX, hemlock, Lath, hemlock, 4 M, Lath, spruce.

BUFFALO.

Table listing prices for We quote cargo lots:— Uppers, Common, Culls.

TONAWANDA.

Table listing prices for CARGO LOTS—SAGINAW INSPECTION. Three uppers, Common, Culls.

CHICAGO.

The Northwestern Lumberman says:—A midsummer quietness is resting on the lumber business all over the country. Manufacture is going on steadily, though it is somewhat hindered on Saginaw river by high water. Sawing is not being urged at a speed characteristic of last season, because there is not the same motive of high prices and a speculative demand that was then felt as an influence carried over from the preceding year. While the consumption of lumber this season has been large, and probably

fully equal to that of last year, the demand has to a greater extent than usual been allowed to draw on the yard supply, the stocking up process having been deferred to as late a date as possible, in the hope that prices would be adjusted on a more satisfactory basis. This disposition to defer buying in supplies is not peculiar to the West, but is as prevalent at the East. The merchants in lumber have a settled conviction that lumber in first hands is too high. Whether that conviction is right or wrong, it is doubtless true that the intense competition to sell on a falling market during the past year has depressed yard stocks below what they should be, considering the general demand for lumber to consume. But that does not destroy the fact that dealers are impressed with the opinion that the margin between prices at the mills and the yards is too narrow for profit, and that their hesitancy about restocking their yards this season is owing to that impression. It is this cause that has made business drag this season, and appear dull as compared with the two preceding seasons:

Table listing prices for Short dimension, green, Long dimension, green, Boards and strips—No. 2, Boards and strips—Medium, Boards and strips—No. 1, Shingles, standard, Extra A, Lath.

Table listing prices for STOCK ON HAND JULY 1, 1883, 1882, 1881. Lumber, Shingles, Lath, Pickets, Cedar posts.

OSWEGO, N. Y.

From Our Own Correspondent.

We make no change in quotations; dealers are striving to maintain present prices. The past week has been a very dull one, with wet weather and high water very little has been done. The old cut has about all come forward, nothing now but new lumber, and pretty green at that. Receipts to date 1883, 73,000,000 feet; 1882, 94,000,000 feet.

Table listing prices for Three uppers, Pickings, Fine, common, Common, Culls, Mill run lots, Siding, selected, 1 inch, 1 1/2 inch, Mill run, 12x10, 12 inch, selected, Shippers, Strips, 1 and 1 1/2 inch mill run, 1x2 selected f. clapboards, Shingles, XXX, 18 inch, pine, XXX, 18 inch, cedar, Lath.

GLASGOW.

The Timber Trades Journal of July 14, says: A quiet demand was met at the sale of deals, &c., held here on the 5th inst., by Messrs. Singleton, Dunn, & Co., and the goods catalogued were, with the exception of a few lots, withdrawn. The catalogue comprised Quebec yellow and red pine deals, and Quebec and St. John, N. B., spruce deals, also a parcel of salvage timber. St. John, N. B., spruce deals, 15 to 24 ft. 12x3, were sold at 11d. per cub. ft., and 10 to 14 ft. 12x3 at 10 1/2d. Of the salvage timber, 18 logs teak sold at 5s. 7d. per cub. ft., 1 log ash at ls., 274 sleepers at 8d. Further sales were made privately.

Probably the near approach of the summer holidays is having an unsettling influence on the market. Imports to Clyde during the past week have been moderate. The timber traders from Quebec will soon be dropping in, and it is expected that the spring fleet will be larger than last year's. Stocks being comparatively small, as shown by statement in last issue, gives opening for a pretty large import of fresh goods. Arrivals of wood goods at Grangemouth recently have been very heavy, the tonnage employed in conveyance amounting within the last two weeks to 12,595 tons. But this year's total imports to Grangemouth to date compared with corresponding period of last year are much lighter.

LONDON.

The Timber Trades Journal of July 14, says: There is a curious coincidence in the amount of timber-ship arrivals in London this week and

last. Numerically they are exactly the same, numbering 78, but there are fewer steamers recorded this week, though the number of those is 32. In this fleet again firewood is very largely represented by about 20 cargoes, and some of these very heavy ones. Being now in the very middle of the import season, and the North American spring fleet fully on, we must expect large arrivals; but this week not swollen by ships from the New Brunswick ports, which are yet to come forward. But the supply of pitch pine knows no cessation.

We hear that several steamers without engagement have gone on speculation to load from New Brunswick ports at 62s. 6d. to 70s.; also from Pensacola at 42s. 6d. and £8 10s. to United Kingdom and Continent.

Among the quick passages across the Atlantic this season we may mention that of the Hugh Cairns, chartered by Messrs. Cowie & Williams, of Birkenhead. She left the Mersey on the 19th of April and arrived in Quebec on the 16th of May, was loaded and despatched on the 5th of June, and arrived back to the Mersey on the 5th July, thus completing her voyage out and home a fortnight under three months. There would be small need of steam in the timber-carrying trade if sailors could be generally depended on to make such quick voyages as that of the Hugh Cairns.

We notice a company is being formed, called the California Redwood Company (Limited), with a capital of £900,000. The object of the company is to acquire extensive tracts of forest land where redwood grows. The trees are of gigantic size, and are said to very suitable for this market.

LIVERPOOL.

The Timber Trades Journal of July 14th says:—With a continuance of a moderate import, recent prices are maintained, and in some cases show a slight advance upon the rates recently obtained. Spruce has a firmer tendency, but whatever gain is made by increased prices here will not benefit the shipper, as any advance is discounted by the increased rates of freight which have now to be paid in St. John, N. B., and other shipping ports. As the present quotations are below the cost of importation, it is only reasonable to suppose that the supply will be curtailed as much as possible, and this appears to be the determination of many of the producers of the Dominion. Birch timber is also somewhat scarcer and dearer, as will be seen from the result of the last auction sale held here, particulars of which will be seen below.

The strike of the iron-workers in the Midland districts will doubtless affect the timber of this port to some extent, and it is to be hoped that an amicable settlement of the dispute will soon be arrived at.

LIVERPOOL TIMBER SALES.

On Friday last, the 6th inst., Messrs. A. F. & D. Mackay offered one cargo of St. John, N. B., spruce deals, birch, &c., timber, two cargoes of Shediac deals, and other woods. All the fresh cargoes were sold at fair rates, the St. John, N. B., birch showing an advance upon previous prices.

SWEDEN.

The Stockholm correspondent of Timber Trades Journal under date of June 30th, says: Within the last fortnight the character of the vessels arriving to load wood cargoes at the lower ports of the Gulf have changed. Instead of the small sailing ships loading for the exports, we now see a very considerable number of steamers for London, Hull, Grimaby, Harlepool, Bordeaux, and Antwerp. This is corroborative of the reports flying about relative to sales in large lines by extensive concerns at a reduction of price, and to which I referred in my last as likely to demoralize the trade on this side. This has no doubt to some extent taken place, and prices for the moment may be said to be an expression of the sellers' position in regard to unsold stock rather than to anything else. Each individual firm presumably knows best its own business, but there is a prevalent feeling that the firms who have suddenly turned around and taken the plunge in the downward movement of prices have scarcely acted loyally to their numerous Continental customers, who had

relieved them of a large proportion of stock at comparatively high prices, and who find themselves encumbered with goods bought probably at 15s. per standard higher on an average than their competitors in the United Kingdom are now being supplied at. With so large a proportion of the leading stocks sold, no evidence that I have yet seen seems a justification for the alleged necessity of taking the low prices recently accepted for the three lower qualities of redwood deals and battens. The present depression has, however, it is reported, caused an expression of opinion on the part of the shareholders of some of the large companies, who have lately held their annual meetings, as to the advisability of a further large reduction in the production next winter.

The export of sawn and planed wood from Sweden for the first five months of the present year, as compared with a similar period in 1882, was 140,683 Petersburg standards 1883, and 147,604 Petersburg standards 1882, showing but a slight difference in favor of last season. This return, although of little importance as reflecting the probable extent of the export for the current year, shows that a larger business has been transacted than has been anticipated. The ports south of Stockholm have been evidently taking time by the forelock, and getting all off they possible could before the Gulf ports were accessible.

Transactions are reported of good brands from the lower Gulf as follows:—Red 9 and 11 in. deals—mixed, £10 15s.; 3rds, £3 5s.; 4ths, £6 5s.; 5ths, £5 5s. Red 6½ and 7in. battens—3rds, £6 5s.; 4ths, £5 5s.; 5ths, £4 5s.; and unassorted white battens at £4 10s. But holders of good fresh sawn redwood are not anxious to quit any large weight of goods at such low rates, which are quite unprofitable, with the prevalent strictness in assorting redwood in the districts referred to. Old-established firms, holding leases of forests bought fifteen or twenty years ago, may possibly make such rates pay, but new concerns that have paid current prices for growing wood will find it hard enough to make ends meet at those figures. The price obtained for mixed, consisting of only about 10 per cent. of the production in favorable cases, is of much less moment than the figures at which 3rds and 4ths are disposed of. A large parcel of 3rd red deals is reported as having been sold at £9 f.o.b. Gothenburg, which is proportionately better than rates obtained in Norrland at present. I presume the sale has been of the Uddeholm, or similar good brand, that buyers can rely on as being of a quality very little inferior to Gefle, and not the mixed stock held by many of the Gothenburg middle men.

The position of the freight market has changed but little, as far as steam tonnage is concerned, for the last fortnight. Sailing ships, however, under 150 standards are somewhat scarce, and quotations for such keep stiffening. That this is only the natural consequence of the almost entire cessation in the building of such vessels will be apparent.

Of the tonnage built in 1882 the steamers numbered 21, of 3,609 tons, showing that same consists nearly exclusively of small coasters. In that year 33 steamers were purchased abroad, of a tonnage of 14,458 tons. The building of sailing ships has also almost ceased in Sweden. Both of the united Scandinavian nations are going pretty extensively into steamers suitable for carrying wood goods, for the building of which Sweden is well adapted.

A destructive fire broke out on Wednesday last in the wood-yard belonging to the Skelleftea Aktie Bolag at Klementsnaas, resulting in the destruction of over 3,000 standards of sawn wood, as well as the laborers' dwellings, &c. The property destroyed was insured in local offices for £12,250, which, however, only covers part of the company's loss. The saw mill and flour mill are both intact.

The Korsnas Sagwerks Aktie Bolag had its yearly meeting at the mill a week ago, and divided 8 per cent. for 1882. It is understood that considerable amounts have also been written off. The neighboring Stora Kopparbergs Bergslags has also lately held its annual meeting, at which a dividend of 500 kronor per lot was declared. The capital of this concern is, if I remember aright, 6,000,000 kronor in 1,200 lots of 5,000 kronors each, and its history stretches as

far back as the English "Wars of the Roses." I have reason to suppose that the directors of both these concerns meditate a very large reduction in the "log-get" next winter. This resolution comes somewhat *post festum*, but better late than never.

The weather is again very dry, and the rivers in Norrland are low, so low, in fact, that floating on many of the smaller streams has been stopped. The Ljusne river especially has unusually little water.

OTTAWA LUMBER RETURNS.

During the week ending 14th of July the following passed through the works mentioned:—
DES JOACHIM'S SLIDES.

Rafts.	Owners.	Cribs.	Pieces.
1	J. & G. Bryson.....	113	2,903
1	Allan Grant.....	140	3,696
	E. B. Eddy.....	2	39
		255	66,639

CHAT'S SLIDES.

Between the 9th and 19th July:

Rafts.	Owners.	Cribs.
1	Alexander Fraser.....	145
1	J. R. Booth.....	161
1	W. Mackey.....	117
1	Barnet & Mackle.....	151
1	J. R. Booth.....	64
1	Boyd, Caldwell & Son.....	96
1	R. & W. Conroy.....	180
1	A. & P. White.....	108
1	J. R. Booth.....	97
		1,163

Left Ottawa since 9th July:

Rafts.	Owners.	Cribs.	Pieces.
1	J. Francis & Co.....	157	3,978
1	A. St. Jean.....	21	350
1	Fraser & Curry.....	145	3,924
1	Barnet & Mackle.....	181	4,581
1	J. R. Booth.....	323	5,211
1	Wm. Mason.....	12	180
5		739	18,230

Through Hull slide:
Sawlogs belonging to W. C. Edwards & Co. 992
Sawlogs belonging to Gilmour & Co..... 2,722
3,703

Through Gatineau boom since 9th July:
Owner. Sawlogs.
W. C. Edwards & Co..... 1,720
Hamilton Bros..... 15,301
G. B. Hall & Co..... 10,188
Gilmour & Co..... 2,090
35,299

H. Harris, 15,261 railroad ties and 103 cords of shingle wood.
Pierre Charette, 4 cribs timber. 231 pieces.

RAFTS ARRIVED.

The *Chronicle* gives the following list of rafts, etc., arrived at Quebec:
JULY 19.—Collins Bay Co., staves, Union cove.
J. S. Murphy, staves, Indian cove west.
D. C. Thompson, staves, Bridgewater cove.
Thos. Buck, white pine, ash, oak, &c., New Liverpool cove.
J. S. Murphy, elm, oak, ash, etc., Indian Cove west.
Cook & Gibbons, waney white pine, ash, &c., St. Michael's cove.

QUEBEC COLLERS' OFFICE.

The following is a comparative statement of Timber, Mast, Bowsprit, Spars, Staves, &c. measured and culled to July 20:—

	1881.	1882.	1883.
Waney White Pine.....	717,012	680,095	1,170,231
White Pine.....	1,952,358	1,609,864	1,653,127
Red Pine.....	517,564	245,117	119,050
Oak.....	1,335,986	628,204	815,036
Elm.....	651,315	378,577	137,041
Ash.....	241,899	149,158	107,650
Basswood.....	3,069	256	1,337
Butternut.....	507	1,850	507
Tamarac.....	5,700	1,332	2,765
Birch & Maple.....	121,191	273,832	155,767
Masts.....	— pcs	33 pcs	— pcs
Spars.....	— pcs	— pcs	— pcs
Std. Staves.....	125,937	223,031	278,414
W. I. Staves.....	191,000	506,500	572,512
Bri. Staves.....	—	10,634	53,932

JAMES PATTON,
Supervisor of Collers.

Quebec, July 20.

Utilizing the Attic.

At the saw-mill of E. & J. F. Webster, at Orono, Me., a plan has been adopted, which is described as follows: It was necessary to run

JONES & SON,
Wholesale Lumber & Timber Dealers
39 Broadway, NEW YORK.

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.

a shingle machine in connection with the other machinery, and the construction of the foundation was such, the room upon the floor of the mill so restricted, and the need of removing the sawdust and other waste so great, that it was suggested by some of the workmen that the shingle machines be located in the attic on a floor over the gang and other saws. Accordingly a floor was laid, the machine located upon it, a railway track built under it so that the car receiving the waste could be easily tipped in and burned, the needed shutes for sending the waste into the cars were built, and last, but by no means least, an endless chain with block so arranged that the bolts could be sent up to the machine to be sawed. Now the logs are received upon the bed or main floor of the mill, there cut into bolts each the length of a shingle, then sent up to the machine, there sawed into shingles of the various qualities and trimmed for bunching, then sent down to the floor again and there bunched for market. This arrangement has now continued for several months, and is found to work admirably, so that the cost of sending the bolts up stairs and the waste down is much less than it would cost to get rid of the waste in any other way.—*Northwestern Lumberman.*

PORT HOPE.

A SUCCESSFUL INVENTOR.—The *Times* says: "We are very much pleased to learn that Mr. Thos. H. Ambrose, of this town has disposed of the right of his patent for his automatic freight car coupler for the United States to an American firm for the handsome sum of \$15,000. This is a solid indication that Mr. Ambrose's patent possesses sterling qualities. Patent couplers can be counted by the hundred, every one of which we presume has some merit, but the fact that the majority of them lay dormant for years shows that Mr. Ambrose's must possess not only utility, but cheapness, strength and simplicity. We congratulate our esteemed townsman on his success."

A Rush of Logs.

GRAND RAPIDS, Mich., July 26.—An immense jam of logs extending up Grand River for miles has been lodged against the bridge of the Detroit and Grand Haven railway near the city. It was hoped the bridge would resist the tremendous pressure, but it fell with a crash this forenoon. The bridge of the Grand Rapids, Indiana & Chicago followed. Millions of feet of logs have gone down, sweeping all before them. It is feared the losses will reach many hundred thousand dollars.

MARKET trestle on the Northern Pacific road, near O'Keef, beyond Missoula, and high up in the mountains, it is said to be the highest structure of the kind in the world. It is 866 feet long and 266 feet high, and contains 800,000 feet of timber. Track was recently laid across it, and a heavy construction train tested its strength to the satisfaction of the engineers.

An Ancient Breech-Loader.
A discovery which has just been made at Aleppo is likely to cause considerable surprise in military circles, for, according to the Turkish official gazette of that place, a party of engineers, while making excavations beneath the citadel of the town, have come upon a large wrought-iron, breech-loading cannon, which must have been buried for at least 250 years. That the weapon should be a breech-loader is in itself sufficiently astonishing; but the most extraordinary part of the affair is that the breech mechanism is almost exactly similar to that which has for so many years been fitted by Krupp, of Essen, to the artillery of the German army. The gun bears the name of its maker, Halebl Mustapha Osis, and is in a fairly good state of preservation.—*Mechanical News.*

MR. FRASER, Secretary of the Ottawa Iron and Steel Company, has returned from England after six months' absence. He reports that he has succeeded in organizing a company, with a capital of £350,000 to commence operations this fall. The company's mines are in Ottawa County near the line of the proposed Gatineau Railway, and are said to be very rich. The new company will establish blast furnaces and eventually go into the manufacture of steel rails.

Health is Wealth.



DR. E. C. WEST'S NERVE AND BRAIN TREATMENT, a guaranteed specific for Hysteria, Dizziness, Convulsions, Fits, Nervous Neuralgia, Headache, Nervous Prostration caused by the use of alcohol or tobacco, Wakefulness, Mental Depression, Softening of the Brain, resulting in Insanity and leading to misery decay and death, Premature Old Age, and Spermatorrhea, caused by over-exertion of the brain, self-abuse or over-indulgence. One box will cure recent cases. Each box contains one month's treatment. One dollar a box, or six boxes for five dollars; sent by mail prepaid on receipt of price. We guarantee six boxes to cure any case. With each order received by use for six boxes, accompanied with five dollars, we will send the purchaser our written guarantee to refund the money if the treatment does not effect a cure. Guarantees issued only by ORMOND & WALSH, sole authorized Agents for Peterborough, Ont. JOHN C. WEST & CO., Sole Proprietors, Toronto

Burdock BLOOD BITTERS

FREE TRADE WITH CANADA.

We would commend the following "open letter" taken from the July number of the *Century Magazine* (N. Y.), to the attention of our readers as, although intended only for the "American" ear, it is upon a subject and contains statements of very great interest to Canadians:—

It seems to me strange that the question of an American Zollverein was not brought prominently before the Tariff Commission. The people of the United States have been so educated to a belief in protection that it would be folly for any political party to work seriously for free trade or a tariff for revenue only, but a change might, perhaps be made which, while seemingly a concession to the free-traders, would in reality strengthen the protective character of the tariff. A protective tariff should be a discriminating tariff, so arranged as to shut off the competition of strong manufacturing nations, while encouraging trade with countries likely to afford a market for manufactured products. The United States have nothing to fear from the competition of Canada or Mexico, and free trade with them would give American manufacturers a greatly extended field. American capitalists are now interesting themselves in the development of Mexico, and a great deal of attention has been paid, of late, to the resources of that country; but the prevailing feeling with regard to Canada is one of indifference, occasioned by ignorance of its resources.

To the average American, the name of Canada calls to mind a narrow strip of inhospitable country lying to the north-east of the United States, and inhabited by an unprogressive class of people. It is now, in fact, the name for the whole of Europe, rich in minerals, and possessing the finest fisheries and the largest area of land adapted to the production of first-class wheat in the world. The most fertile part of Canada lies in the north-west, although the crop reports for 1882 show a higher yield of wheat per acre in Ontario than in any of the American states. Over the whole of the Canadian north-west territory, formerly known as the Hudson Bay territory, from the American boundary, line forty-nine, to latitude sixty degrees, the same flora prevails, and there is little difference in the climate, although it becomes warmer toward the west on account of the Chinook breezes which come through the passes of the Rockies and cause a rise of sixty degrees in the temperature in a few hours. The valley of the Peace river, twelve hundred miles north-west of Winnipeg, is said to have a finer climate than Manitoba. In explanation of this uniformity of temperature in such a wide range of latitude, Professor Macoun says:—"It was long ago asserted as a principle by geologists, that land in quantity situated to the southward of latitude forty degrees north, very materially raises the temperature of lands lying to the north of such parallel." He gives meteorological tables showing that there is almost no variation in the temperature between forty-nine and sixty degrees, and that the climate compares favourably with that of European countries in the same latitudes.

Almost the whole of this vast territory will yield from twenty-eight to forty bushels of wheat per acre. United States Consul Taylor who has made a study of the Canadian north-west for years, has gained for himself the nickname of Saskatchewan Taylor, on account of his praises of the section of the country bordering on the Saskatchewan river. He says three-fourths of the wheat producing area of North America lies within the Dominion of Canada. The Canadian Pacific Railway is being pushed through to British Columbia with an energy almost unparalleled in railway construction; and during the last three years, Manitoba has been filling up with settlers almost as rapidly as the Western States did in their most progressive days. Already a prosperous trade has grown up between this part of Canada and the cities of the eastern provinces, Winnipeg alone purchasing \$12,000,000 worth of goods from them last year. As Manitoba and the north-west become thickly settled, and the wonderful resources of Canada's most western province, British Columbia are developed, this trade will grow to enormous proportions. At present,

most of the settlers are Canadians and Europeans, but the time will come when the stream of emigrants from the Eastern States will be diverted to this region, and then, unless free trade prevails, the United States will experience what Canada did during the rapid development of the Western States—a loss of population without any compensating advantages in the way of trade, while eastern Canada will be built up by the trade of the north west.

But remove the tariff wall between the two countries, and the bulk of this trade may be secured by the United States, for settled Ontario is separated from Manitoba by a stretch of one thousand miles of rocky country, enormously rich in minerals and timber, but almost useless for agricultural purposes, while the territory of the United States is well settled to the borders of Manitoba. Chicago is many miles nearer to Winnipeg than Toronto, and St. Paul and Minneapolis are nearer still. These cities could control most of the north-west trade, if the tariff were abolished, and the cities of the Eastern States could compete on equal terms with those of eastern Canada.

Of course, this would not prove advantageous to eastern Canada, whose growth would be greatly retarded. The effect it would have upon the north-west is not so apparent, but it would certainly strike a blow at the future greatness of Winnipeg, Manitoba's chief city, which has in four years grown from a straggling village to a flourishing modern city with a population of about 30,000. So long as the protective tariff is maintained, and the Canadian Pacific Railway does the carrying trade for the north-west, Winnipeg will be the gate way of western Canada, and, controlling the trade of the largest wheat producing area in the world, will become a second Chicago. Already some of the manufacturers of Ontario, to save the expense of carriage, have started factories there, and others will doubtless follow suit. With free trade between the two countries, Winnipeg would have few if any advantages over St. Paul and Minneapolis as the distributing centre of the North-west, and would be exposed to competition not only with them but with Chicago.

Appearances would indicate that Canadians are strongly imbued with the protection idea, as at the last two elections, when it was made the issue, the Conservatives favoring and the Reformers opposing it, a large majority of the former were elected. But many of those who voted for protection did so merely with a view to forcing the United States, by retaliation, to entertain the idea of reciprocity. Americans could rely upon the full support of the Reformers, with a liberal sprinkling of Conservatives, in negotiations for free trade: and, as many of the Conservative members were elected by small majorities, a slight change in public sentiment might make a great change in parliamentary representation. The Conservatives themselves could consistently favor an American Zollverein, for many of their leaders and newspapers expressed themselves in favor of actual free trade, but opposed the one-sided policy that would confer upon Americans favors which they refused to Canadians. But that was before the north-west trade had developed; and as the policy of the present Government is to build up trade between the provinces, they might with reason object to a measure that would divert trade to the United States. The Canadian customs act of 1879, now in force, provides for the admission of natural products free of duty whenever the United States are willing to reciprocate; and the people of Montreal favor the abolition of the duty on grain in any event, as a great part of the grain export trade of the Western States is lost to the city, it is claimed, on account of the bonding system.

WATSON GRIFFIN.

A WOODEN-BOILER.

The *Northwestern Lumberman* says:—While we hear of so many substitutes for wood as to make the hearts of the forest denudation alarmists beat for joy, it is very rarely we hear of forest products being put to a use for which wood has been hitherto deemed entirely impracticable. Such a case, however, has just come to our notice, and, strange to say, it is not a Yankee invention either, and did not origin-

ate in the land of wooden nutmegs, but is to be credited to the inventive genius of a New Jersey youth. It is said: "A Paterson, N. J., mechanic named William Sutcliffe, is building a steam-boat with a wooden boiler, which will be placed in the Passaic river above the falls in a few days. The boat is a propeller 16 feet long. The boiler is made of a new ale oak and is said to be capable of standing a pressure of 200 pounds to the square inch. It has already been satisfactorily tested at 40 pounds pressure. This novel boiler is fitted with flues, and the fire, instead of being under, is on top of it, a draught being supplied by a tube from underneath. Mr. Sutcliffe is a thorough and practical mechanic, holding a responsible position in one of the Paterson locomotive works. It is the first time in history that an attempt was ever made to raise steam in a wooden boiler, and it looks as though the experiment would prove a success."

NORTH-WEST NOTES.

To the Editor of the *Canada Lumberman*.

DEAR SIR,—The journey from Winnipeg eastward on the newly opened line of the C. P. R. is interesting in many respects. The first thing noticeable in the appearance of the country is the gradual change from prairie to woodland. The poplar bluffs, as the groves are called, because they are generally on the higher ground, are more numerous, and the intervening spaces of prairie have more than its usual of scrub or bushes. Farther on the groves increase in extent and the spaces grow less; the trees also increasing in size with the extent of ground covered. Still to those who have seen the great forests of Ontario the timber seems insignificant. After a journey of 40 or 50 miles we begin to see the rounded weather worn heads of occasional Laurentian rocks, as they are geologically called. It is the same formation which extends throughout the northern part of our country from the Gulf of St. Lawrence, from whence comes its name, to this part of Manitoba. The change of timber now becomes more marked. The overgreens begin to occupy the landscape, and the grass retains sole possession only in the lowest meadows. The prevailing poplar of the west still claims a place, but the Jack pine spruce and tamarac are lords of the now more scanty soil. This Jack pine is a species unknown in Ontario; the trunk resembles the Norway or red pine, except that the bark is darker in color, and has a rough, dead appearance; there is a much thinner sapwood, which is quite an advantage. The heart wood is heavier and darker in color like tamarac. The foliage resembles white pine, but the leaves are short and scanty, giving the tree a stunted appearance; it never grows large and is very suitable for ties and small timber.

As we progress on our journey the country assumes the appearance of a nearly unbroken forest. The slender conical tops of the spruce growing thickly in the hollow slopes of the rocky hillside makes the landscape decidedly picturesque. Here, too, begins the lake region of the country. It is lakes to the right and lakes to the left and lakes to the front and rear. They cover about one-fourth of the whole surface, are of all sizes and shapes, but are generally long and narrow. The waters are never muddy like prairie rivers and lakes, but are always translucent, though sometimes brown in color from the peaty swamps, from which they come.

This is the country that calls out the skill of the railway engineer. There is not 40 rods of straight level track on the surface anywhere to be seen. Deep short rock cuts, then trestle work over the end or neck of lake. Next we seem to be clawing along the side of a high cliff, then through a short, then over a seemingly bottomless muskeg, or peat bog, and so on ad infinitum.

Stations are few and far between. Workmen's deserted shanties are plentiful enough, their dilapidated appearance and the burned portions surrounding, give much of the road the air of desolation. There is also yet much to be done in the way of levelling and ballasting the roadway.

Keewatin is a thriving looking place, springing up with this new mine in gold mining, we can't call it an excitement, for there is none.

Like nearly everything else now in the Northwest, it takes the shape of business. Keewatin has also a few good lumber mills.

Yours, &c.,
W. H. TROUT.

Vermillion Bay, July 7th,
Manitoba or Ontario, 1883.

THE ENGLISH MARKET.

James Smith & Co.'s Liverpool wood circular dated July 2nd, says:—The arrivals since our last have been 55 vessels, 37,468 tons, against 52 vessels, 39,983 tons, in the corresponding period last year, and 43 vessels, 31,695 tons in 1881.

FROM 26TH JANUARY TO 30TH JUNE, 1883.

	Vessels.	Tons.
Quebec.....	8	5,020
St. John, N. B., &c.....	35	31,899
United States.....	40	29,841
Baltic.....	102	41,577
Total.....	185	108,337

FROM 26TH JANUARY TO 30TH JUNE, 1882.

	Vessels.	Tons.
Quebec.....	8	4,700
St. John, N. B., &c.....	34	32,783
United States.....	65	53,643
Baltic.....	74	34,211
Total.....	181	125,345

FROM 26TH JANUARY TO 30TH JUNE, 1881.

	Vessels.	Tons.
Quebec.....	7	5,847
St. John, N. B., &c.....	23	22,722
United States.....	69	42,666
Baltic.....	60	24,235
Total.....	149	95,470

The prospects for the season are somewhat more cheering, caused no doubt by good reports from the agricultural districts, fine growing weather, moderate imports of timber and stocks, which taken as a whole are not heavy. If this state of things continues (with peace at home and abroad), confidence may be expected to return, and the doubtful feeling induced by the recent suspensions soon be removed, but great care and moderation will have to be displayed both on the part of shippers and importers to reach this good result. The money market continues easy, the bank rate remaining at 4 per cent. Freights appear firm in spite of the increased steam tonnage of late offering, and very little would cause them to advance. Insurance rates are slightly easier, but for the fall shipments are still so high that they must affect seriously both purchases and shipments.

COLONIAL WOODS.—Yellow Pine: None the new import is yet to hand; there is a fair demand, the consumption for the past month having been 41,000 cubic feet, against 53,000 feet in June last year. The stock is ample, the fresh arrivals being shortly due. Sales have been private from the yard. By auction a few logs of St. John wood realized 2s. per cubic foot, and several parcels of Quebec and Miramichi, stored from last season, have been offered but not sold. Of red pine there is a stock of 11,000 cubic feet, whereas the quantity gone into consumption is but 1,000 feet. The sales have been by private only. Of ash there is no stock at present; good wood is wanted. Elm: There is a fair enquiry, but no sales are reported. Birch is in good demand, and 32,000 feet have arrived during the past month. By auction 552 logs prime fresh wood from St. John, ex Palermo, were sold at from 16d. to 2s. 6½d. per foot, the average being 19d. per cubic foot. By private a cargo of Cape Breton wood has been sold to arrive at 15d. per foot for 15-inch average, c.i.f., and a cargo of Prince Edward Island, per Ethel Banche, at 16½d. per cubic foot, ex quay. The present stock is only 40,000 cubic feet. Oak: 6,000 cubic feet have been imported during the past month; 18,000 feet have gone into consumption, leaving a stock of 136,000 feet on hand. Sales have only been by private, as the 234 logs from Quebec offered at auction were withdrawn unsold. Oak scantling is in fair demand at prices ranging from 2s. 6d. to 3s. per foot, according to quality and selection. The stock, however, is large, 218,009 feet, and fresh arrivals continue to come forward too freely. New Brunswick and Nova Scotia Spruce Deals: There has been a full import for the time of the year, but no improvement in the consumption, and the stock of 11,715 standards may therefore be considered somewhat heavy. During the month the sales have been as low as £6 12s. 6d. c.i.f. for St. John

deals, but the latest sales have been at £8 16s. 9d. per standard; while by auction the cargo, ex Palermo, from St. John, realized from £8 17s. 6d. to £7 7s. 6d. per standard, and averaged £7 2s. 6d. per standard; lately, there has been more enquiry from the outports as well as the continent. Pine deals, from St. John have been sold at from £7 7s. 6d. to £8 2s. 6d. per standard for small lots. Quebec pine deals have arrived, per steamer, in about the same quantities as last season, and few parcels have been sent on the market; the only sales have been of third quality pine deals, according to specification, at from £8 15s. to £9 2s. 6d., and red pine deals, mixed qualities, at £9 5s. per standard, or quay. Quebec staves are quiet, and sales have been by private only, at rates below the cost of import. Palings and laths: The former have been sold at 85s. per 1,200 pieces for 5 feet x 1 inch, and at 70s. for 4 feet x 1 inch.

Ornamental and Timber Trees Not Native of the Province of Quebec.

BY CHAS. GIBB, ESQ., OF ABBOTSFORD.
Mr. Gibb has been at great pains, not only to introduce hardy fruits into the Province of Quebec, but also such ornamental and forest trees as are likely to prove valuable in that province. This little pamphlet of nearly eighty pages is full of information of great value, not only to the Province of Quebec, but also to those in the Province of Ontario who live in the colder latitudes. We note that he desires particularly to call attention to the Russian mulberry. He says it has been introduced into Minnesota, at latitude 54, where it has succeeded perfectly. It begins to bear fruit at two years old, that the fruit is valuable, and is produced in large quantities, that the timber is good for building purposes, and lasts a long time when made into fence posts or railway ties, and its leaves are the best food in the world for silk worms. We commend this pamphlet to the careful perusal of all who are interested in the growth of forest and ornamental trees in the northern portions of Ontario.

Piling Lumber.

Lumber should not be allowed to depreciate for lack of proper care in piling. Piles should be built so that the front cross pieces shall be higher than the back, and each in succession be overlapped, or laid out a trifle beyond the previous one. A pile 20 feet high should incline outward from base to top at least 18 or 24 inches. The sides of the pile should be carried up plumb, each cross piece directly on top of another, so that the weight shall rest solidly on each, and on the foundation timber. If the courses be placed a little forward or back of the previous one the weight above will twist, warp and perhaps break the lumber. Piles should never be placed less than three feet apart, and boards in the pile should always be laid with from two to three inches of space between them.
—American Lumberman.

A Saw Mill Burned.

For several days the saw mill of Thompson & Avery, at Sharbot Lake, had been shut down for repairs. The machinery was out of gear and workmen were engaged in fixing it. About ten o'clock last evening the mill took fire and burned with great rapidity. Several of the workmen had a narrow escape from being burned. It is supposed that a light fell upon some of the waste oil about the machinery and hence the conflagration occurred. The loss totals about \$3,000, with an insurance of \$500. A considerable quantity of shingles and lumber was destroyed. The mill was burned in a very short time. Thompson & Avery may rebuild, or they may purchase one of the other mills in the vicinity.—Kingston Whig.

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Having suffered from rheumatism for a long time I was induced to try your Arnica and Oil Liniment. The first application gave instant relief, and now I am able to attend to business, thanks to your wonderful medicine.

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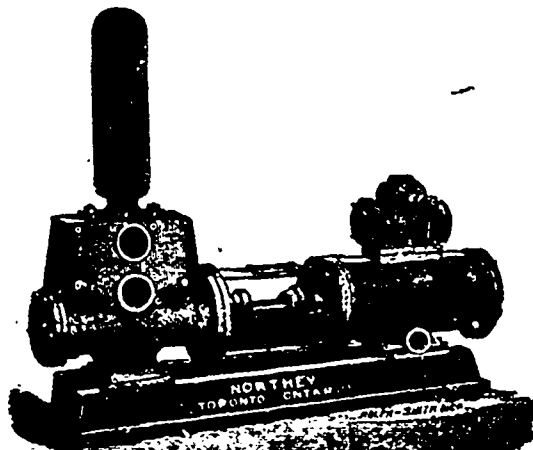
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REVIEWS.

PRESERVING AND REPLANTING TREES.—One of the most useful public reports that has come before us, is that compiled by Mr. R. W. Phipps, for the Ontario Government, on "The Necessity of Preserving and Replanting Forests." Though most of the matter is not new to those interested in this important subject, it is well selected and arranged, and so presented as to afford valuable and very complete information on the subject to the general reader, and especially to our agriculturists, who are not sufficiently acquainted with their own practical concern in this question. The teachings of scientific men as to the necessity of forests in a climatic and sanitary point of view are given at sufficient length, and it is shown how various countries have suffered from their improvidence in this respect by the impairment of their agriculture and in other ways. Still more valuable is the voluminous information as to the practice of forestry in other countries, and of the valuable results of the scientific treatment of public and private forests. Mr. Phipps, who seems to feel a great interest in this subject and to have been a close observer, points out how this information bears upon our own case, and urges, as we have often done, the necessity for a cessation of the present wasteful denudation of our forests and the perpetual maintenance of a portion of them. We hope this report will be of service in introducing a better system, and to aid in this we will hereafter present our readers with extracts from it.

ASSESSMENT OF TIMBER LIMITS.

The *Bobcaygeon Independent* says:—A case of considerable importance to lumbermen was tried on Wednesday, 25th July, in Haliburton, before his Honour Judge Peck. The township of Glamorgan, acting under legal advice, had assessed the various lumbermen possessing timber limits in the township, for the value of their interest in their limits. The lumbermen interested were M. Boyd, R. C. Smith, W. J. Trounce, and Green and Ellis. The assessments were as follows:—M. Boyd, \$6,500; R. C. Smith, \$12,000; Trounce, \$8,000; Green and Ellis, \$1,000. The assessor had made this assessment on the advice of Kerr, Blake and Carrels, which advice had been concurred in by Mowat, MacLennan and Downey. At the Court of Revision this assessment was appealed against as illegal, but the Court confirmed the assessment with some slight alteration; and this decision was appealed to the County Judge. Mr. Baron of Lindsay, appeared for the lumbermen jointly. The case of Glamorgan was conducted by R. G. Sidley, Esq., the Reeve. Mr. Baron opened the case, and contended that the assessment was illegal as the lumbermen did not own the limits, which were Crown property, and as such were exempt. All that the lumbermen owned was the right to cut the lumber from year to year, a right which was determinable at any moment. Also he urged that it was not the intention of the Government that this property should be taxed, and although it was not especially exempted by statute, yet it was clearly not property which could be taxed. It was merely an occupation. The interest in the limits could not be sold under an execution, nor could the right be transferred from one person to another without the express consent of the Government, thereupon it was not a property liable to assessment. Mr. Sidley replied in an address of considerable length, displaying great knowledge of the subject, and treating it with great knowledge, tact, and ability. He said the township was not taxing the limits as real estate, that being clearly exempt, but they were taxing the interest of the lumbermen therein. Money was personal property, and just as much money as a lumberman invested in his limits was clearly taxable. If this interest in the limits was exempted, the exemption would be mentioned in the statutes, and he challenged Mr. Baron to show that any such exemption was anywhere referred to. If a man had a sum of money invested in a bank, it was taxable, and if the same money were invested in a limit, it was absurd to suppose that it would be exempt. Mr. Baron had said the interest of the lumbermen could not be sold under execution, but Mr. Sidley referred to the case of the Scott estate in Carondish, when the

interest left by Mr. Scott had proved most valuable after it had been in Chancery. The case of Bennett vs. O'Meara, 15, Grant's Chancery Reports, proved that the interest of the lumbermen was personal property, and he need not tell the Court that all personal property was liable to taxation. The case of the Queen ex rel. Latchford v. Frizale was quoted by Mr. Sidley, in which it was held that a party having more possession of a lot determinable at any moment, was rightly assessed. He quoted eight other cases in which it was decided that if an occupier of Crown property received a benefit therefrom he was liable to be taxed for his interest therein though the property itself was exempt. Thus Lady Emily Ponsonby had received a grant of gratuitous use of apartments in Hampton Court Palace, but her interest in those apartments was held to be taxable, though the property, being royal property, could not be touched. In the same way, interest in lumber limits could be taxed, though the land itself, being Crown property, was exempt. Mr. Sidley likewise dwelt on the injustice of such exemption, pointing out that whilst the lumbermen was receiving all the benefit of the construction of roads, and of municipal government, he did not pay one cent toward local burdens. He concluded by quoting a decision of Mr. Justice Burton, to the effect that every species of property should bear its just share of the burdens of the place of which it received the benefit. Mr. Sidley expressed the hope that the decision of the court would be such as not to compel a poor man to pay a rich man's tax.

The Court after hearing the arguments on both sides, and examining a few witnesses, proceeded to give judgment. His Honor observed that the timber licenses were out of date on the 30th of April in each year. Consequently on that date the property reverted into the hands of the Crown, and as it passed into the hands of the Crown before the annual year's assessment had been completed it could not be taxed. This disposed of the case as to the timber limits, but the chattel property, the clearances and the shanties, were all accessible unless taxed at the head office of the lumberman. The case occupied three hours in arguing, the Court being crowded by lumbermen and parties interested. Mr. H. Junkin, for Smith of Fenelon, Mr. Austin, assessor of Fenelon, and Mr. G. Bick, of Bobcaygeon, were present. Mr. Sidley received the compliments of many friends on the able manner in which he had conducted the case.

Swedish Mills Burnt.

The *Timber Trades Journal* says:—We learn from our Swedish correspondent that there has been a large fire at Skelleftea, resulting in the destruction of several thousand standards of deals, &c. A considerable quantity of the timber destroyed had been placed, we understand, on the east coast, and steamers chartered to bring it over. These latter will have to be diverted somewhere, and thus take goods out of the market that would have been available for other bottoms. It was only last week we chronicled the great fire at Merra. Grigorieff's saw-mill at the mouth of the Neva, and now

we have in addition to that of Skelleftea, notice a serious outbreak of fire at a Drammen mill destroying some thousands of pounds worth of stock. The great frequency of these conflagrations will add seriously to the rates of insurance on wood property.

Preservation of Forests.

The following letter appears in the *Toronto Globe*:

SIR,—To-day's mail brought me from South Australia what should interest many of your readers, especially following your notice of Mr. Phipps' report on the necessity of preserving and replanting our forests, and as very ample references are made in this report to what is being done in South Australia among trees, under the supervision of my brother as conservator, I have the greater pleasure in submitting, as a lesson for Ontario, the most recent provision of that enterprising colony.

The sheet sent me has a list of 480,000 trees set aside for one season's distribution free, among "corporate bodies, farmers and others, owners of land." The conditions upon which young trees are obtained from the Government nurseries, of which there are five, are few and practical, so as to ensure a proper reciprocity between settlers and the Legislature. Directions are given for planting, as well as advice regarding the soil and situation most suitable for each kind of tree named.

So then Australia not only gives advice, but supplements with materials free to her settlers.

WM. BROWN.

Agricultural College, July 17.

The Metallization of Wood.

Les Mondes describes the following process invented by Mr. Rubennick for metallizing wood:

The wood is first immersed for three or four days, according to its permeability, in a caustic alkaline lye (calcareous soda) at a temperature of from 74° to 90°. From thence it passes immediately into a bath of hydrosulphite of calcium, to which is added after 24 or 36 hours a concentrated solution of sulphur in caustic potash. The duration of this bath is about 48 hours, and its temperature is from 35° to 50°. Finally the wood is immersed for thirty or fifty hours in a hot solution (35° to 50°) of acetate of lead. The process, as may be seen, is a long one, but the results are surprising. The wood thus prepared, after having undergone a proper drying at a moderate temperature, acquires under a burnisher of hard wood a polished surface, and assumes a very brilliant metallic luster. This luster is still further increased if the surface of the wood be first rubbed with a piece of lead, tin, or zinc, and be afterward polished with a glass or porcelain burnisher. The wood thus assumes the appearance of a true metallic mirror, and is very solid and resistant.

Narrow Escape at Eddy's.

OTTAWA, July 23.—About half-past eight this morning fire was discovered in one of the dry houses in connection with Eddy's works, Hull. The material within the building being of such an inflammable nature the flames soon spread around the roof of the building, and eye-wit-

nesses made up their minds that a disastrous fire would ensue. The Union steam engine turned out and did good service, and Mr. Eddy's engine kept two continual streams on the north-west corner while the Union played upon the other end. The flames were confined to the centre of the building. The damage was small.

Strike of Rattmen.

A Montreal despatch dated July 26, says:—Some forty or fifty rattmen, working for G. B. Hall & Co., struck at Bourdeauluffs, and when other laborers were substituted for them they became dissatisfied, and tried to obstruct the new-comers. As the latter resisted any interference, the owners applied for protection to the authorities yesterday, when the police magistrates, high constable, and some detectives immediately proceeded to the scene. The strikers having heard of a force coming, they hauled down their colors and begged to be reinstated, which was done. The prompt action of the authorities prevented, it is said, a very serious disturbance.

THERE is no excuse for suffering from Head-ache, Constipation and all the wearying train of symptoms of a disordered liver, when Burdock Blood Bitters is an unfailing remedy, and only costs One Dollar a bottle. Why suffer on without a trial? 25,000 bottles sold during the last three months, with almost universal satisfaction.

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FREEMAN'S
WORM POWDERS.
Are pleasant to take. Contain their own Purgative. Is a safe, sure, and effectual destroyer of worms in Children or Adults.

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on June 30th, 1882 and 1883, and also the Consumption for the month of June, 1882 and 1883:—

	Stock, June 30th, 1883.	Stock, June 30th, 1882.	Consumption for the month of June 1883.	Consumption for the month of June 1882.
Quebec Square Pine.....	58,000 ft.	46,000 ft.	14,000 ft.	12,000 ft.
Waney Board.....	96,000 "	112,000 "	9,000 "	33,000 "
St. John Pine.....	34,000 "	25,000 "	18,000 "	5,000 "
Other Pine.....	04,000 "	00,000 "	0,000 "	0,000 "
Red Pine.....	11,000 "	9,000 "	1,000 "	5,000 "
Pitch Pine, hewn.....	571,000 "	975,000 "	90,000 "	198,000 "
" Sawn.....	724,000 "	617,000 "	140,000 "	169,000 "
Planks.....	51,000 "	100,000 "	23,000 "	23,500 "
Baltic, &c., Fir.....	77,000 "	75,000 "	40,000 "	42,000 "
Sweden and Norway Fir.....	0,000 "	0,000 "	0,000 "	0,000 "
Oak, Canadian.....	392,000 "	237,000 "	37,000 "	114,000 "
" Planks.....	0,000 "	0,000 "	0,000 "	0,000 "
" Baltic.....	0,000 "	0,000 "	— "	0,000 "
Elm.....	22,000 "	20,000 "	5,000 "	5,000 "
Ash.....	— "	— "	— "	— "
Birch.....	40,000 "	2,000 "	38,000 "	42,000 "
East India Teak.....	16,000 "	53,000 "	13,000 "	13,000 "
Greenheart.....	121,000 "	54,000 "	9,000 "	20,000 "
N. B. & N. S. Spruce Deals.....	11,715 stds.	7,568 stds.	0,609 stds.	1,310 stds.
" Pine.....	— "	— "	— "	— "
Quebec Pine & Spruce Deals.....	4,628 "	4,777 "	1,893 "	6,801 "
Baltic Deals.....	3,204 "	1,674 "	548 "	770 "
Boards.....	— "	— "	— "	— "
Norway prepared Flooring.....	5,114 "	2,728 "	1,645 "	555 "

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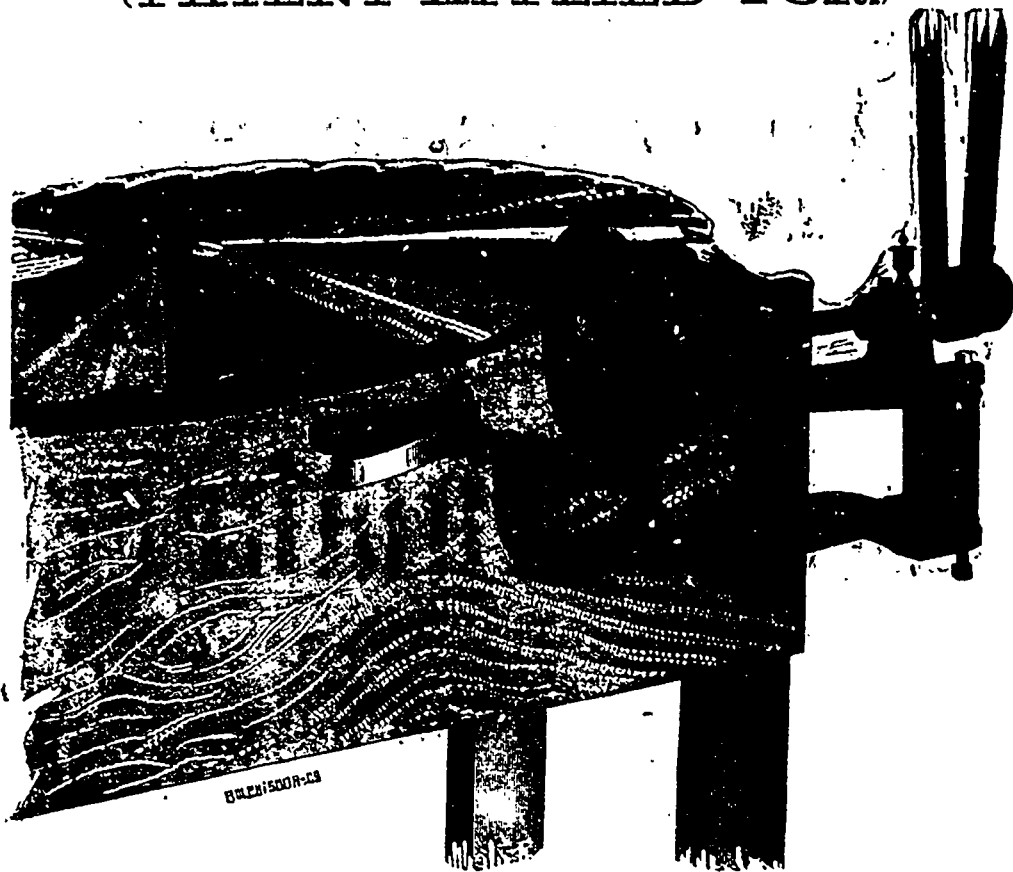
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