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THE TRUE REGULATORS.

WHILE we cannot but regret, in the interest of our own St. Lawrence route, that the people of the State of New York have declared in favor of free canals, and that as a consequence all tolls on the Erie Canal will at once be abolished, yet we cannot deny that the decision at which they have arrived is eminently in their own interest and that of the people of the north western states, and, to a certain extent, in the interest of the producers of lumber and barley in Ontario. As our readers are aware, the REVIEW, even when it was laughed at for so doing, maintained that the best if not the only satisfactory regulator of freight rates was our water ways, and the events of each succeeding year have only served to confirm this conviction and to prove that those whose most intimately concerned in this matter are coming more and more to the same way of thinking. Certainly in adopting an amendment to their constitution providing for free canals the people of the empire state and the chief commercial city of the continent, have given the most substantial evidence in their power, and that too, in spite of the opposition of their powerful railway corporations, that they are of the opinion that the water ways are an important, if not the best freight regulator. In Great Britain too, we find the same feeling gaining ground, notwithstanding that country has more miles of railway to the square mile than any other country in the world.

During the last or rather present session of the Imperial Parliament a select committee was appointed to enquire into the subject of railway rates and fares, and as a result of their investigations they presented a report recommending among other things "That Parliament do not sanction any further control, direct, or indirect, of canal navigation by a railway company."

To understand, and fully appreciate this recommendation, it is necessary that the reader should bear in mind that nearly all the canals of that country are at present leased to, and worked by, those railway corporations with whom they competed, and that if the recommendation of the committee be acted upon the canals will return to their natural and proper position of competitors with the railways for the carriage of heavy freight as soon as the present leases expire. That such a result would have a beneficial effect upon freight rates cannot be doubted, seeing that the railway companies in order to secure control of them have leased them at rentals which pay the owners thereof higher dividends than the railways pay their own stockholders, and that they (the railways), find it profitable to maintain these canals even where they run side by side with their own lines.

Under circumstances such as those to which we have just referred, we need scarcely say that we hold it to be the duty of our statesmen to

avail themselves of every available opportunity of developing and improving our water ways whether they be in our older or newer provinces.

While a "free" Erie is no doubt calculated and intended to injure the St. Lawrence route, we have little fear of the ultimate result now that our own inland and natural competitor with the Erie Canal is fairly under way under the name of the Trent Valley Canal. Taken in conjunction with the recent action of the State of New York, and in conjunction with the deplorable results which have followed the attempt to use vessels adapted to the wants of the Welland Canal on our great lakes, it is clear that it is the duty of the Dominion Government and Parliament ... the interests of humanity, as well as of the St. Lawrence route, to push the Trent Valley Canal on to an early completion. —Peterborough Review.

FOREST FIRES.

The *American Journal of Forestry*, the first number of which has been published at Cincinnati, contains an interesting paper on forest fires by Mr. Putnam, of Wisconsin, which, it is stated, was written for the forestry Congress, but delayed, owing to the absence of its author on the Pacific Coast. The forest fires in Michigan, Wisconsin and Minnesota, are said to be the results mostly of carelessness on the part of explorers, or timber hunters, haymakers and others having either business or pleasure in the woods, who leave their camp fires burning, where they have cooked a meal or spent the night. July and August are the months in which they generally occur, when the pine leaves and branches from the last winter's cutting are dry and like tinder liable to burn from the dropping of a match or a stroke of lightning. The author of the paper thinks it absolutely necessary that proper laws should be passed and enforced for the punishment of this criminal negligence, and does not believe that it would be hard to detect offenders. Most men, he says can be traced even in the pinceries, and if fires result from their acts they should be punished by imprisonment or fines. The practice of lumbermen is, when the tree is felled, to cut off the branches, which are left scattered on the ground and in the following summer become dry and like powder. A match thrown away, an emptied pipe, in fact anything with a spark of fire, will start the burning. It is suggested that there should be a law requiring the lumbermen to employ an extra man in the woods to pile in an open space the green branches and refuse, so that all may be burned at a proper time. The opinion of the author is that the fires are not the result of carelessness of the Indians, who are careful to extinguish their campfires. He advocates the appointment of foresters, to collect and distribute information and advice as to the manner of cutting timber. Probably as much timber or as many trees in

number are destroyed each year through ignorance and carelessness in cutting the pine timber for sawlogs as are cut and really used or taken to market. The author states that he has recently visited the forests on the Pacific coast, and finds there more danger from fire than in Minnesota, Wisconsin and Michigan. Terrible fires, he says, are raging on Puget Sound, Coast Range and Cascade forests. He saw one of 100 miles by 10, and of 75 by 2 to 20 miles in extent, all the result of pure carelessness, and which might have been prevented. He thinks that 1,000 trees may be saved where one can be raised, and after 30 years' experience in forests he thinks that if he had educated his timber explorers to be careful of fire he could have saved millions. Such is the information given by a Wisconsin lumberer. *Lumberman's Gazette*.

THINNING OUT TREES.

Henry Hemming, Esq., Quebec, contributed the following to the Forestry Congress, Montreal:—"As I do not see upon your programme of subjects to be discussed, any reference to the important question of "Thinning out Forest Trees" at various periods of their growth, I write in the midst of other engagements just to call your attention to its importance. In a pine forest, if the trees are placed so wide apart as to admit of the branching out to begin low down on the stem, you will get a collection of ornamental trees, but not a real timber tree amongst them. On the other hand if the trees are grown in a plantation so thickly that the ground is encumbered with five or ten in the space that one ought to occupy and yet be sufficiently confined to be restrained from side shoots—in this case also you have no timber forest, but are only growing firewood. Now, I have an impression that this subject has been pretty thoroughly studied in the great timber producing countries of Europe. It is certain that there they have an extensive literature on forestry of which we hardly know the names in North America. Between giving the trees room and restraining them from lateral branching, the degree of "thinning out" is brought to something of a nicety. Properly effected, the productiveness of our forests might be multiplied many times over. Even the cutting of good trees by the lumberman does not thin out effectually. Nothing will do that but chopping for the very purpose in view at various steps of the growth of the plantation. What are those periods? How many "thinnings" in all will be made? I am quite unable to reply to those questions, but the Congress, in its stores of forest knowledge, may be able to help on a solution."

SEVERAL lumber-millowners have been prosecuted for throwing slabs and other refuse in the St. John River, New Brunswick, and have been fined \$20 each.

TIMBER FOR RAILROAD USES.

The moisture of the soils in the South, says the *National Car Builder*, is very destructive to woods employed as the bed for railway track, and managers have been troubled to know what is the most economical method for obviating loss resulting from this cause. Creosoting has been resorted to. Several works with large capital have been established in St. Louis for the treatment of wood by the creosote process, and in Texas the treatment has been applied along the lines as construction was pushed forward. This method, however, is considered rather too expensive. Some railway men have concluded that the alantus and catalpa will prove to be the cheapest and most durable wood for tie and bridge timbers. One company, whose road extends chiefly over prairie lands, is having a large plantation seeded for these trees in equal proportions. Both the catalpa and the alantus are readily propagated from the seed, and bear seed-pods abundantly. Another company, whose road enters Texas, is arranging to plant several hundred acres of these trees in that state. Even the Iron Mountain Company, that probably owns more heavily timbered land than any other in the country, has contracted for the cultivation of a catalpa farm near one of its stations in Missouri. On this road are catalpa ties that were laid nearly 15 years ago and are apparently as sound as ever. It is authenticated that in southern Ohio, where one species of catalpa is indigenous, there are posts and timbers of this wood that have been in the ground a full century and yet show no signs of decay. Although the alantus is an importation from China, still it and the catalpa seem to find in the soils of Missouri, Arkansas and Texas just what they require to thrive upon.

A Rush for the Woods.

The St. John, N. B., correspondent of the *Montreal Gazette* says.—The rush for the woods is greater this fall than it has been for years. Every train that goes up the St. John towards the lumber regions of that part of the Province carries supplies, men and teams, bound for the forest, and there is equal activity on the north shore. This is not because of a scarcity of logs, as the stock is not yet exhausted. Last winter was an exceptionally good one for hauling, there being plenty of snow and fast-frozen swamps, and the stock was large at the beginning of the season for sawing. The production of lumber has been very large, as all the mills have been run constantly, many of them day and night. Some of our mills are preparing, by the accumulation of logs, to saw during the winter, as the prospects for good prices next spring are considered favourable. Mr. Gibson, the King of the Nashwaak, will have a regiment of men and horses in the woods, and several other heavy operations will have a large force there.

FORESTRY.

The following sensible editorial appears in the *Stratford Beacon* from the pen of Dr. A. Eby, of Saddington, in the county of Perth:

"The recent meeting of the Forestry Congress brought out prominently some facts that should receive the serious consideration of the people of this province and of our Government. The first point that we wish to bring out is that the timber supply of this continent is nearly exhausted. At the present rate of cutting, it is estimated that the pine timber now standing in the different states and provinces will last as follows: Georgia, 75 years; Florida, 30 years; Alabama, 70 years; Mississippi, 150 years; Minnesota, 10 years; Michigan, 7 years; Wisconsin, 20 years; Louisiana, 540 years; Pennsylvania, 5 years; Arkansas, 325 years; California, 100 years; South Carolina, 27 years; Maine, 16 years. At the present rate of consumption only six of these states have a practically inexhaustible supply, but when we consider that the total production is 3,623 million feet annually in the United States alone, and divide that into the 264,750 million feet, estimated total of standing timber, we find that even at the present rate of consumption it will all be exhausted in 70 years. As it will take at least 70 years to grow a new crop, it will be seen that the total amount of timber now standing is only sufficient to last until a new crop can be grown, if it is planted at once, but if planting is delayed for a few years a scarcity will ensue before some now living will be gathered to their fathers.

Let us now look at Canada and its supply. According to Mr. Ward, of Montreal, who is doubtless well informed on the subject, Canada has 50,000,000 acres of timber standing. This according to the present rate of cutting, will last us 50 years. But we must not forget that the demand both in Canada and the United States will be immensely increased within the next ten years. The new settlements in Canada hitherto obtained the supplies from local sources. Within even the last decade immense quantities of pine have been exported from the older settlements of Ontario, but these resources are nearly, if not entirely, exhausted, and lumber will soon have to be carried to districts that formerly exported it. Take the township of Ellice. Hitherto there were in it eight or ten mills running the greater part of the summer, but the supply is now practically exhausted, and that township will have to import more lumber in the next 20 years than it exported during the last decade. There are many other places in the same position. They will have to draw their supplies from the great public forests instead of getting them from local sources as heretofore. But while the older provinces had local supplies for the most of their wants, such is not the case with the provinces now being settled. Manitoba and the Northwest will require more lumber than all the rest of Canada has standing. Even sparsely settled as it is, lumber is even now carried from Montreal to Winnipeg. What will be the demand when the settlers will once be able to erect permanent dwellings for themselves and stables for their cattle? But while the demand in Manitoba will increase immensely, that of the older sections of the country will not be diminished, so that we may well calculate that instead of the present supply lasting 50 years it may last from only 30 to 35 years.

The same holds good for the United States. States like Michigan, Minnesota, Pennsylvania and even Maine, will in a few years have to import instead of exporting as they do at present. Then the immense settlements that are now taking place on the treeless prairies of Dakota, Nebraska, Kansas, Texas, and other States and territories will increase the present enormous demand. Taking all this into consideration, we may well ask if the present supply will last 50 years instead of 70 years.

This is a matter of serious consideration, not the less so because the evil is remote and will not be materially felt by the present generation. It will come as certainly as time goes on. Though the evil will not strike the present generation, it is its duty to provide for future necessities. Many municipalities are incurring heavy liabilities on the principle that the next generation should assist in paying for improve-

ments of which it will reap the benefit. So this generation, while it uses the timber of natural growth, owes it to future generations to prepare a supply for them. It is our duty to increase instead of diminish the chances of life to our successors. It will become our wisdom and foresight to live on regardless of the future, it is our duty to provide for the future, knowing that if we ourselves shall not reap the harvest others will. Men lay up wealth not because they take the money with them when they go hence, but as a store for their children. In the same way we should prepare a supply of fuel and timber for future generations.

But while this holds good for individuals it is especially true of Governments. Governments have no end. The king never dies. One Ministry may be succeeded by another, yet it is the same Government. The aim and object of the Government should be the welfare of the country as a whole, not of any particular section of it, nor at any particular period, but its continued welfare. When the Government makes an improvement it should be so made as to be permanent. So the Government should prepare for the welfare of its future citizens as well as those of the present day. It is the duty of the Government to see that the resources of the country are not wasted and the chances of life and happiness of its future citizens are not endangered or made unnecessarily laborious.

It has been the experience of Europe that a supply of timber can be best secured under the control of the Governments. While each individual strives to benefit himself, the Government has no selfish or personal object to serve. While individuals cannot expect to reap the fruit of a planting or seeding that requires 50 or 100 years for its growth, such is not the case with the government. It can as certainly reap the harvest in half a century as in five or ten years. The Government alone can afford to wait the time necessary for the harvest and when its forests have once been put in order and the harvest time comes it can reap a rich revenue for its foresight. It will be a continued seeding and planting for many years to come, but when the harvest is once reached it will be as continuous a harvest as the seeding had been. Governments only can exercise the necessary oversight and control of so large forests as will be required to keep up the necessary supplies.

We will not undertake to say just what our Government should do in the premises, but we will point out what ought to be done. There are large tracts of country in different parts of the province that are practically unfit for agricultural purposes. Wherever such lands can be obtained at a low price they should be secured by the Government, where they are not already the owners, and take measures to have them planted with some suitable, valuable timber. To do this properly will require the organization of a forestry department altogether apart from the Crown Lands Department. To the forestry department all rocky, barren lands unfit for agricultural purposes should be turned over to be managed as public forests. Such as are already covered by forests should be put under such regulations as would best answer the purposes of revenue and the conservation for future use. Such as have been denuded either by the lumberman, by fire or otherwise, should be reseeded or replanted as soon as possible and be kept under the supervision of properly trained foresters. This would doubtless increase the expenses of the Government, but it would be investing money in such a way as to return a good revenue in the future. A moderate outlay in this way will bring a sure return in the future. While we believe the Government is acting in the interests of the public by selling the leases of its forests to the highest bidder, it should also take the necessary steps to keep up the supply. Full grown trees do not increase in value by letting them stand. They should be removed to give room for fresh timber to grow. Care should, however, be taken that young and growing trees are not removed or damaged.

The *Orillia Packet* says:—Mr. James Hadden, lumber and shingle manufacturer, at Foxmead, on the Midland Railway, is building a tramway from his mill to the timber limits. Mr. Hadden will not be dependent on snow for his stock.

THE COLLECTION OF AMERICAN WOODS AT THE CENTRAL PARK MUSEUM.

The Directors of the American Museum of Natural History are now preparing for exhibition in the arsenal building, in Central Park, one of the finest collections of native woods ever brought together. When rendered complete by the addition of 26 specimens that are expected to arrive before winter sets in, the collection will embrace specimen blocks from each of the 420 trees indigenous to this country, and most of which have some economic or commercial value. As is usual in collections of this kind, each specimen-block is sawed longitudinally, diagonally, and transversely, so as to show the characteristics of the wood.

Among the many curious specimens in the collection now being prepared for exhibition, says the *New York Times*, one which will excite the greatest curiosity is a specimen of the honey locust, which was brought here from Missouri. The bark is covered with a growth of thorns from one to four inches in length, sharp as needles, and growing at irregular intervals. The specimen arrived here in perfect condition, but in order that it might be transported without injury, it had to be suspended from the roof of a box car, and thus make its trip from Southern Missouri to this city without a change. Another strange specimen in the novel collection is a portion of the Yucca tree, an abnormal growth of the lily family. The trunk, about two feet in diameter, is a spongy mass, not susceptible of treatment to which the other specimens are subjected. Its bark is an irregular, stringy, knotted mass, with porcupine quill-like leaves springing out in place of the limbs that grow from all well-regulated trees. One specimen of the Yucca was sent to the museum two years ago, and though the roots and tops of the tree were sawn off, shoots sprang out and a number of handsome flowers appeared. The tree was supposed to be dead and thoroughly seasoned by this fall, but now, when the workmen are ready to prepare it for exhibition, it has shown new life, new shoots have appeared, and two tufts of green now decorate the otherwise dry and withered log, and the Yucca promises to bloom again before the winter is over. One of the most perfect specimens of the Douglas spruce ever seen is in the collection, and is a decided curiosity. It is a recent arrival from the Rocky Mountains. Its bark two inches or more in thickness, is perforated with holes reaching to the sapwood. Many of these contain acorns, or the remains of acorns, which have been stored there by provident woodpeckers, who dug the holes in the bark and there stored their winter supply of food. The oldest specimen in the collection is a section of the *Picea Engelmanni*, a species of spruce growing in the Rocky Mountains at a considerable elevation above the sea. The specimen is 24 inches in diameter, and the concentric circles show its age to 410 years. The wood much resembles the black spruce, and is the most valuable of the Rocky Mountain growths. A specimen of the nut pine, whose nuts are used for food by the Indians, is only 15 inches in diameter, and yet its life lines show its age to be 369 years. The largest specimen yet received is a section of the white ash, which is 46 inches in diameter, and 182 years old. The next largest specimen is a section of the *Platanus occidentalis*, variously known in commerce as the sycamore, button-wood, or plane tree, which is 42 inches in diameter, and only 171 years of age. Specimens of the red wood tree of California are now on their way to this city from the Yosemite Valley. One specimen, though a small one, measures five feet in diameter and shows the character of the wood. A specimen of the enormous growths of this tree was not secured because of the impossibility of transportation, and the fact that there would be no room in the museum for the storage of such a specimen, for the diameter of the largest tree of the class is 35 feet and eight inches, which represents a circumference of about 110 feet. Then, too, the Californians object to have the giant trees cut down for commercial, scientific, or any other purposes.

To accompany these specimens of the woods of America, Mr. Morris K. Jesup, who has paid all the expense incurred in the collection of specimens, is having prepared as an accom-

panying portion of the exhibition, water-color drawings representing the actual size, color, and appearance of the fruit, foliage, and flowers of the various trees. Their commercial products, as far as they can be obtained, will also be exhibited, as, for instance in the case of the long leaved pine, the tar, resin, and pitch, for which it is especially valued. Then, too, in a herbarium fruits, leaves, and flowers, are preserved as nearly as possible in their natural state. When the collection is ready for public view next spring it will not only be the largest, but the only complete one of its kind in the country. There is nothing like it in the world, as far as is known; certainly not in the royal museums of England, France, or Germany.—*Scientific American*.

FRENCH RIVER MILL.

The *Midland Free Press* says:—"Last Friday the schooner Nett Woodward was loaded at Cook's dock here with the machinery for the American Lumber Company's mill at French River, and a finer lot of machinery, it is said, is not to be found in any mill on the bay. The six large boilers, the powerful engine, and all heavy shafting are from the Joseph Hall works of Oshawa. The stock for the machine shop, including engine and boiler, plane, lathe and drill are from the works of Morrison Bros., Toronto. The improved edger, with four saws was made at Wm. Hamilton's works, Peterboro'. All the steam feed circular machinery was manufactured in Stearn's establishment, Erie, Pa. On this lot alone the Company paid in freight and duty \$1,125. There were also fifteen sets of sleighs from Ramsay's carriage works, Orillia.

The machinery taken to the French River mill is guaranteed to cut from 80,000 to 90,000 feet per day, but gangs will be put in next season and the output of the mill increased to 150,000 feet a day. It is calculated that all the lumber manufactured at this mill will be shipped to the North-West.

We can give but a faint idea of the extent of the operations of the American Company, under the energetic management of Mr. John Dollar. Three hundred men are now employed at French River, in getting out 15,000,000 feet for the mill there. They are also getting out a large quantity of timber from 40 to 80 feet long, which is rafted and taken to Detroit where it is cut up for railway purposes. Men are also engaged in making 500,000 cubic feet of square timber which will be brought to Midland and shipped over the railway to Port Hope. At that place it will be made into rafts and taken to Quebec. They are also taking out of Muskoka 15,000,000 feet to be cut at the Company's mills at Midland and Gravenhurst—8,000,000 for Dollar's mill here and 7,000,000 feet for Gravenhurst.

Mr. D. C. Keane, is here looking after the machinery and supplies and attending to the business outside of the mill. He is an active young man, and looks well after the interests of the company.

NATURAL METHOD OF TREE PLANTING.

For some years back we have advocated through your columns the planting of the nuts of nut-bearing trees and the stones of peaches where the trees are going to stand, because these trees have great tap-roots running down into the ground, which in transplanting have to be cut off, thereby greatly weakening the natural strength of the tree, making it short-lived, easily blown over in storms, and preventing it from attaining the size and vigor it would otherwise have if grown in the natural way.

Within the past year writers on forestry and horticulture have been taking up this subject, the tide having turned in favor of planting seeds of all nut-bearing and stone fruits where the trees are to stand.

But the great mass of the public, who should be interested in the subject, know very little and care less about these matters, and either don't plant or do it in the old way, buying from so-called tree-agents, who cheat them nearly every time; but as they are told high-flown stories about the trees sold them, they rather like to be cheated than otherwise.

It is to try and enlighten them on this subject, and to show them a much better and cheap-

er way, that this article is penned by a nurseryman who has had forty years' experience in the business.

In the American Forestry Congress, recently held at Montreal, a paper was read by Dr. Warder, from Robert Douglass, of Waukegan, Ill., on the 'Three Motion System of Planting.' As you copied this article into the *Witness* last month I need not repeat it here; suffice it to say that it gave a greatly improved method of planting trees over what had ever been practised before, and cheapened it so much that two men and a boy could plant 4,500 one year-old trees in a day. In addition to this cost there would be the expense of raising them in the seed bed, lifting them at one year old, trimming the roots, and conveying them to the place of planting, nearly all of which could be saved, with the exception of one year's extra cultivation of the land, by adopting the natural method of tree-planting, while the trees at three years old would be much larger and worth two of the trees transplanted at the same age by the Douglass system and at no greater expense than planting corn would be.

For forest tree-planting on the prairies, as described by Dr. Warder and others, all that is necessary is to have the land thoroughly ploughed and prepared in fall, so that water will not lie upon it during winter or spring to solidify it.

If to be planted in the fall the land should be thoroughly harrowed, rolled, and marked the same as for planting—in rows four feet apart each way,—planting the nuts or seeds at the intersection of the rows and placing two nuts or three or four seeds in every hill, only the strongest of which should be allowed to grow.

If spring planting is preferred the nuts or seeds should be kept in moist sand or earth during winter and planted out the first thing in spring. If the land was ploughed in the fall and has got hard during the winter, it should be deeply cultivated, harrowed, and rolled in spring before marking out.

By the Douglass method one-year-old trees are planted with the roots more or less trimmed and laid in a slanting position. By this, the natural method, the tree would stand erect from the start, with its tap-root going straight down and its roots springing out all around, forming natural braces for its support.

Besides, some of the most valuable trees, such as the hickory and black walnut, more especially the former, could be planted in this way which cannot be transplanted. The hickory has no rootlets and very few fibres near the crown of the root, merely a very strong tap-root, with a few fibres here and there from which it draws its sustenance; when this is cut off in transplanting, there is nothing left to sustain the tree, and if it lives at all, it is weak and worthless.

A hundred acres of hickories planted in this way would prove a fortune, as the thinnings from time to time would be very valuable and even command a high price for exportation to England, where hickory poles are in great demand, but cannot be had in sufficient, if any, quantity, while the nuts and wood of the grown trees will always command ready sale at high figures. The black walnut would be ultimately more profitable on account of the great value of wood. But this is not all; why should not the apple and the pear be planted in the same way as the nut-bearing trees?

The present way of propagating the apple is by getting the seeds from cider mills, taken from all kinds of trees, healthy or unhealthy, sowing in seed beds or in broad rows, where they stand a year or two according to their strength, when they are taken up and root-grafted during winter with the desired variety, the tap-root is cut up in two to four sections, according to its size, and a graft inserted in each, wrapped around with waxed paper, and packed away with moist saw-dust in boxes or barrels till time for planting in spring.

This is a very cheap way of propagation but far from a good one, as the most valuable part, the tap-root, is sacrificed never to be renewed by after growth.

The pear seed is usually imported from France, and the young trees are generally treated differently from the apple (though some root-graft

them also). At one or two years old they are removed from the seed-bed and planted in nursery rows, where they are budded the same year. The tap-root has to be cut off and the other roots trimmed previous to planting. At two or three years old those that grown well are fit for sale, but, as the roots of the pear run naturally deep into the ground, with but few rootlets near the surface, in lifting the greater parts of the root has to be cut off, as the tree could not be planted again with them at full length; so that in looking at the roots of the tree as planted it has been a wonder to me that it could grow at all.

By sowing the seeds, several together, as previously described, in the place where the tree is permanently to stand, all these difficulties would be avoided, and fine, healthy, long-lived trees, probably in a great measure free from blight, would be obtained.

Any farmer or fruit-grower could plant in this way; he could obtain his seeds from some strong healthy trees—those from natural seedlings are preferable (the best French pear seed is all from natural seedling trees), and plant it in hills from twenty-five to thirty-five feet apart placing a stake at each hill as a mark. The field could be planted with corn, potatoes, or other hood crops (but not with small grains of any kind, as these exhaust the land), which should be well cultivated and all weeds destroyed round the young trees; of course all the seedlings should be pulled up but the strongest trees, which could be budded the same season or the following, and all that did not take could be grafted the following spring with the varieties required.

By using the hand corn-planter, properly gauged for planting nuts or seeds, as the case might be, a large field could be planted by one or two men in a very short time, talking care to plant the seed at the proper depth for germinating, which is about four diameters of the seed, and seeing that it is properly covered with fine earth, to be pressed down with the ball of the foot as the planter goes along.—James Douglass in *New York Witness*.

REMARKABLE DISCLOSURES.

(Seward (Neb.) Reporter.

Mr. B. S. Crane, manager and treasurer of the Alvin Joslin Comedy Company, struck Cheyenne the other day upon business connected with the appearance of that splendid company in this city at an early day. A reporter called upon Mr. Crane at his rooms at the Inter-Ocean and spent a few pleasant minutes in conversation about the coming attraction. Mr. Crane assured the writer that the personnel of the company is all that could be desired and that the public may look for even better performances this season than last. Noticing that the manager looked a little pale the writer remarked upon the fact, but received the reply that he was in good health.

"But," continued Mr. Crane, "I did have a pretty serious time of it last summer in New York."

"What was the trouble?"

"I had a very sharp attack of rheumatism. The disease attacked my left leg and left arm, and for a time I could neither walk upon the one nor raise the other to my head. I suffered horribly. Did you ever have the rheumatism, sir?" addressing the reporter. "If ever you are stricken with it there is one thing which I can recommend as a pretty sure cure, and one which will probably give you quicker relief than anything else you can employ. I refer to the Great German Remedy, St. Jacobs Oil. I am aware of the prejudice which many entertain against advertised medicines. I felt thus about the St. Jacobs Oil and thought my attention was too deeply rooted to be dissipated. But a man will sometimes catch at a hope as it flies. I purchased a bottle of it, when I found nothing else I applied would give relief, and commenced applying it. It proved a most effectual remedy, and the use of three bottles cured me."

"And you are now quite a devotee of St. Jacobs Oil?"

"That is, perhaps, drawing it too strongly. I certainly do believe it a fine specific for rheumatism, and as my belief is based upon personal experience, I don't mind commending its use to others."

In the office of the hotel, the reporter met Mr. Geo. A. Dunlap, who is the popular and efficient representative in Cheyenne of the Chicago firm of Wood Bros., live stock commission merchants. Happening to mention the interview with the manager of the Alvin Joslin company and what he said about St. Jacobs Oil, Mr. Dunlap replied that he was not surprised at the narration of the circumstances, for the Great German Remedy was a good medicine and he could also commend its virtues.

"Are you struck on Oil, too, Mr. Dunlap?"

"Well, I don't exactly put it that way, but I believe it a good remedy all the same. My experience with it is somewhat limited, but of sufficiently recent date to make me vividly remember what it has done for me. While supervising the loading of cattle this autumn, I fell from a car and seriously hurt my left knee. I believe a blood vessel was ruptured and the muscles severely strained. I could not walk for several days, and do not know that I would be capable of active locomotion now, were it not for the kindly offices of St. Jacobs Oil. Its powerful healing and stimulating properties put me right on my feet. It did, for a fact, and you can use the information if you so please."

"Almost everybody," remarked Mr. A. C. Stayart, representing Wober, Howland & Co., wholesale dealer in hats and caps at Denver, "uses St. Jacobs Oil where I came from. I once had a very sore foot and very naturally employed the Great German Remedy. It cured my foot in a very short time. I also can recommend it."

"Are there any other gentlemen present, who would like to endorse this wonderful specific?" said the reporter. "It has assumed the importance of a public question, and I intend to write it up for the benefit of others who may need the offices of this medicine."

"Yes," replied Mr. Wm. H. Dunlap, representing the great coffee house of Jowett, Sherman & Co., Milwaukee, "put me down as another believer in St. Jacobs Oil. I had rheumatism and St. Jacobs Oil cured me. You can just bet on it every time."

"Gentlemen," remarked the reporter, "this is a remarkable coincidence. Two Mr. Dunlaps, each of whom never met the other, both endorsing St. Jacobs Oil, followed by another gentleman in the room. It is a regular experience meeting. It will not be paralleled soon in Cheyenne."

The reporter was subsequently informed by one of the prominent druggists in the city that Father Hayes had also used the Great German Remedy for rheumatism, and, having been cured, commended its employment to his people.

The above is a true bill, and may be relied upon.

A SPLENDID
SAW and GRIST MILL
For Sale by Auction, at
COATE'S AUCTION ROOMS
IN THE
CITY OF TORONTO,
ON
Saturday, December 9th, 1882,
AT 12 O'CLOCK NOON.

These mills are situated on the Gull River, in the village of Norland, County of Victoria. The Saw Mill has two large circular saws, one butting saw and one edger, with an extra supply of belting. The Gull River affords a means of bringing down timber for 100 miles north of the mill. The Grist Mill has two runs of stones. The dam is maintained by the Government of Ontario. There is a never failing of water. The property consists of 240 acres of land, more or less. One tenth of purchase money at time of sale. Terms for balance will be made known at time of sale. For particulars apply to
JONES BROTHERS & MACKENZIE,
Solicitors, &c.,
5 & 6 Canada Permanent Buildings,
Toronto.

A LORD OF THE FOREST.

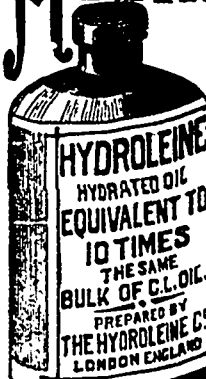
The Lord Mayor of London, with the other commissioners of Epping Forest, have been visiting the Duke of Portland's Welbeck estate, which is widely known for the grandeur of its trees. Some of the timber grown in the park years ago was used in building St. Paul's Cathedral, and at the Abbey there is still preserved a letter written by Sir Christopher Wren, who, communicating with the Duke of Newcastle's agent in 1695, sends the dimensions of the beams he requires for the roof of the edifice, and adds that he "expects this season but ten of the great trees." The Greendale oak in Welbeck Park is called the Methuselah of Trees, and writing of it in 1790, in his "Descriptions and Sketches of remarkable oaks at Welbeck," Major Rook said the tree was then thought to be 700 years old. In 1724, an opening was made in this oak large enough to allow a carriage, or three horsemen abreast, to pass through it. At that time the girth of the ancient tree above the arch was nearly 36 feet, the height of the arch was 11 feet, and the topmost branches were 54 feet from the ground. Although crippled with age and some rough treatment, the Greendale oak still flourishes. It has, like some old men, to be propped up; but its boughs are yet green, and its foliage bright. The timber taken from the tree's heart was in 1724 made into a cabinet for the Countess of Oxford, and this cabinet, which is now at Welbeck, contains several inlaid pictures, one or two of which represent a former Duke of Portland driving a coach and six horses through the cavity cut in the old oak's trunk. On the estate a story is told that His Grace, in an after-dinner frolic, made a bet of 1,000 guineas that he could drive a coach and six through the body of the tree without touching the bark, and that he accomplished the feat and won the guineas. The cabinet, which is quite a work of art, also bears the following quotation from Ovid's "Metamorphoses":

Oft did the Dryads lead the festive dance
Beneath his shade, or hand in hand enclose
The orbit of his trunk, full fifteen yards;
Whose head above his fellows of the grove
Doth tower, as these above the ward beneath.

A great many mills throughout Minnesota and Wisconsin are shutting down. In some cases there is a lack of logs, and in others there is feeling on the part of the mill men that there is enough unsold lumber in their yards.

The Merrill, Wis., correspondent of the *Northwestern Lumberman* says that most of the mills at that point are shut down, having cut all their logs. The river will be clearer than ever before. Men are going to the woods very fast. The weather is cold, and some snow has fallen. With a good winter there will be more logs put in than in any one season before.

HYDROLEINE
(HYDRATED OIL.)
An artificially digested
Cod Liver Oil.



For Consumption, Winter Cough, Affections of the Chest and all Wasting Diseases. Prescribed by the leading physicians of England, the United States and the Dominion of Canada.

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

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

For sale by all Druggists.

LARCH-MORE.

The following paper by Dr. John A. Warder, of North Bend, Ohio, appears in the American Journal of Forestry:—"In this age and country, where so much is accomplished by the assumption of merit, and by boastful claims of praise for works said to have been performed, but which too often fail when they are subjected to close scrutiny, it is truly refreshing, in our rambles over the country, to meet with a tree-planter who does not boast of millions as the result of his labours, which, when seen, will contain only a few thousands; and instead to find a man who, without any bragadocio, quietly and thoroughly does something that is worthy of notice and report.

Fast as trees may grow in this country, and their rate of increment is said to be much greater than in European forests, still the work of growing a productive forest that shall yield returns within the lifetime of the planter appears to most men problematic. Some fast-growing trees, like the cottonwoods, willows, chestnuts, locusts, and a few others, with very brief rotation, may be cited, but as a rule, Forestry is and must be slow in its cash returns.

But to a brief description of Larch-More—where our worthy friend has undertaken to clothe a vast amount of waste, sandy land with valuable timber. Not content with the usual boast of so many who are styled foresters and forest-planters, who can show but a few acres at the most, we here find many hundreds devoted to this crop. The planting is of course progressive, and spread over several years, but it is done by a private citizen who has other interests to look after, and who must also provide for his daily wants.

From the great railway corporations who possess larger means, and on account of their own deep interest in forestry, that would enhance the value of their extensive landed estates, granted as subsidies by the government, we had expected, before this time, some grand results that would be worthy of record. But what have these wealthy bodies to show, after long years, as the result of the florid anticipations that were published to the world some years ago! Let them look to their laurels, or it may happen long before the close of the century, that private individuals of moderate means will have greatly outstripped them with absolute results of growing timber.

The plantation which is now to be described is situated on the low shores of Lake Michigan, on its western coast, near the little city of Waukegan, Illinois, close to the Wisconsin State-line, in latitude 42° 30' N., at an elevation of six hundred feet above the level of the sea. The surface is slightly above the level of the lake, except where, from the continued action of the winds and waves, the sands have been thrown into dunes of some fifteen to twenty feet in height. The whole territory, extending for some miles along the shore, appears to be the delta of a small stream called Dead River, which here finds its embouchure after cutting its way through the elevated bluff of glacial clays that forms the original boundary of the lake, and rises thirty or forty feet above the water.

The surface of this extended plain is made up of a succession of narrow, low, flat ridges, separated by shallow depressions, usually containing water—these are generally but a few rods wide, and their trend is parallel to the coast of the lake; they seem to be old shore-lines, like the higher ridges along Lake Erie in Ohio. At present there is little or no arboreal vegetation, though there are evidences of some ancient forest growth, and an occasional white-pine tree still standing gives proof of an ability to produce trees. The dry ridges have a scanty covering of inferior grasses and other herbaceous vegetation, with here and there patches of shrubby growth, consisting of bear-berries, low willows, aspens, cornels, spruces, and on those more elevated a few white pines, with the more abundant, but very scrubby black oaks and some other trees and bushes, among which are junipers, notably: the trailing form of *juniperus sibirica*, and known as the "Waukegan-Trailing."

In many places, however, and wherever the herbaceous covering is disturbed and the surface is exposed to the action of the winds, particularly near the lake, broad areas are perfectly bare, and composed of drifting sands, that

are thrown into dunes and changed in form from year to year. The depressions between the ridges are clothed with native grasses on their sides, with typha, rushes, and other aquatic plants where they are deeper and covered with water—here, of course, there are accumulations of vegetable debris, but the bottom is everywhere firm sand. In these depressions wooden growth is rare, and consists of button-bush (*Cephalanthus*) and some willows, until you reach the last depression under the bluff, where the black-oak of small size is found.

Such a tract of land would seem to be rather unpromising to the tree-planter; being on one part too wet for tree growth, and on the other, composed of pure sand to receive the scorching rays of a midsummer sun and liable to reach a temperature of more than 100° Fahrenheit in the daytime, alternating with cold, at night, of perhaps 50°, as a result of radiation, and exposed to very low temperature with the trying winds of winter.

Notwithstanding the unpromising, even forbidding aspect, the natural indications were such as to encourage the attempt, which was made, and which has been made successfully, to clothe this waste with a profitable crop.

Great encouragement was given to the enterprising planter by the results of his observations upon the plans Nature had adopted to enable the spontaneous growths to protect the sands from the baking heat and biting cold—and thus to secure a more temperate stratum of soil near the surface for the feeding roots of the trees. The scanty herbage of the grasses could do little in this way. The trailing-junipers, however, soon covered the surface and caught the drifting sands that formed cumuli about them—on other spots of the dunes a close carpeting of the *Urtica urtica* concealed the sand, making it possible for tree-seeds to germinate and to survive the summer heats, and so the arboreal vegetation gradually spread over these ridges.

The most interesting forestal study here was the behaviour of the *Pinus strobus* on these sands. Feeling the necessity for a cooler soil, the upward growth of the young trees was arrested, and the lateral branches were extended quite near the surface, until, in some cases, they had reached a diameter of a rod or more, when at length an aspiring leader would shoot upward, and the growth of that tree was assured.

Planting, under such conditions, was a very simple affair. On the sand, the mark of wagon-wheels was sufficient. Furrows were plowed on the dry ridges and the trees were set either in pits or by *notching*, according to their sizes. The species selected are mostly coniferous—the common pines and larches prevail, while some ailanthus and catalpas were also planted. All seem to be doing well in their new homes, with some failures, of course, in removal from the upland nursery grounds to these flat sandy lands, and from the shelter of the close rows to their more scattered stations on the exposed hot sands, the transition was more than they could bear until Nature provided the necessary shade by lateral branches as observed in the native *Pinus Strobus*.

The Scotch pines seem to have become reconciled the soonest to their new home, and grew off beautifully. The robust Austrian promises well, but the *Pinus rigida* and table-mountain pine have not done so well.

A recent report from the plantation (July 29) is very satisfactory. "Many Scotch pine, a few Austrian, and many white pines are now eight to ten feet high—some larches are two feet. Where the trees stand close, they run up about as fast as on good lands, but single trees have to spend some years in making laterals to shade the ground and then they shoot upward. My Larch-More plantation is really a study."

The trees are exposed to inroads of teams, skating parties, cattle and fires, and yet "they are far ahead of those on Cape Cod or any other barren-land plantations I have seen. . . . If the ailanthus would stand our climate, it would be the tree to cover all these wastes rapidly, and it would not be so liable to be burned as the conifers. Of course spruce, balsam-fir, arbor-vitæ, and red cedar will not grow in blowing sand, or in any very sandy land, but the white, red, and Scotch pines will grow as rapidly here as in good upland without cultivation."

Here are six hundred acres of forlorn waste,

marsh, and sands, that had furnished but a meagre pasture of inferior herbage, which are now put in the way of producing a grand forest by the planting of five hundred acres with timber trees.

The situation, too, is one than can not fail to attract the attention of travellers on the Chicago and Milwaukee Railroad, which courses along the base of the bluff, on the western side of the plantation, and commands a view across the flats.

Some forest trees planted on the upland are also worthy of note. A large nursery, well stocked with pine and larches, became unsaleable by their slow growth during a period of depression, and have now grown into a bit of forest covering twenty-four acres, and they show what the larch can do on such land. They are already twenty-five to thirty feet high, and many of them three to seven inches thick at the base, and would be available for hop-poles, fencing, and for many purposes.

Having named the locality as at Waukegan, Illinois, it will be unnecessary to add the name, Robert Douglas & Son, familiar as household words to all western tree-planters, and known indeed in all civilized countries whither the public mails have transported so many of their dollar-packages of little or baby forest trees, that have enabled men to gratify their desire to experiment in tree-planting, even in the uttermost isles of the sea, and upon the jungles of India, wherever civilization has sent the mail, bag have "these presents" gone as worthy pioneers of advancing and progressive American Forestry—a Yankee suggestion and far-reaching as thought.

THE USE OF THE MICROSCOPE IN TESTING TIMBER.

An interesting paper on this subject was recently read before the Franklin Institute, Philadelphia, by Mr. R. Grimshaw, O. E. Whilst disclaiming any intention of suggesting that the elastic limit, or even the breaking strain, of structural materials can be definitely determined by the microscope, Mr. Grimshaw insisted very strongly on the advantages attending its use in preliminary investigations, to ascertain whether materials are or are not worth the expense of testing further. If the microscope condemns the sample it is not worth further outlay. The larger the specimens requiring to be tested the greater will be the gain the microscope will effect in avoiding the cost of further proof, or the risks of using without such proof.

Mr. Grimshaw exhibited samples and microphotographs of American bridge timbers which had proved faulty after being built in, but which a preliminary examination with the microscope would have promptly thrown out. The timber from which these poor specimens were taken was a fragment from a railway bridge wrecked in 1879-80. The timber formed a portion of the sill of a draw bridge, consisting of two 12 in. sticks lying on upon the other. The turntable casting being somewhat too small, these 24 in. of timbers had to support one of the A frames of the bridge at a distance of 12 in. outside the bedplate. After a few days' service the strain became so great that, when an empty truck was passing, the A frame sheared the 24 in. timbers, wrecking the bridge entirely. The timber was so excessively poor that, on mounting a specimen on the plate of the microscope, its weak and porous nature was at once apparent. The annual rings appeared about three times as far apart as they would be in good wood of a similar kind, the medullary rays were few in number and short in length, whilst in good wood, on the contrary, they are of considerable length and so numerous that tangential sections present the appearance of a series of tubes seen endwise, or a number of parallel chains. After once seeing and comparing samples of good and bad wood, it is easy to recognize the difference with a pocket magnifying glass.

The trunks and limbs of exogenous trees, as is well known, are built up of concentric rings or layers of woody fibre, which are held together by radial plates acting like trenails in a boat's side or "bond" in brickwork. The rings representing successive years' growths, are composed of tubes, the interstices of which are filled with cellulose. The slower the growth of the tree,

the thinner these yearly rings, and the denser and harder the wood—other things being equal. Not only is the closeness of texture an indication of the hardness and strength of the timber, but the size, frequency and distribution of the radial plates which bind the annual layers together may be taken as a very close illustration or sign of the character of the wood and its ability to resist strains, especially a breaking stress. The microphotographs of good and bad timber show that in the strong kinds the concentric layers are close in texture and narrow in width, and the radial plates numerous, wide, long, and stout, while in poor stuff the opposite characteristics prevail.

The practical application consists in having such enlarged photographic sections, longitudinal and transverse, of standard pieces of timber, bearing a certain known maximum or minimum strain, and rejecting any piece which the assisted eye detects to have fewer rings per inch of tree diameter, fewer fibres, or fewer radial plates per square inch of section, or to use such pieces with a greater factor of safety.

The advantage of the method is that it allows every stick in a bridge or other structure to be tested before use.

Mr. Grimshaw concluded with some remarks on the application of the same test to metal-work in structures.—*Timber Trades Journal*.

AN ENGLISH WALNUT.

A reader of the *Builder's Weekly Reporter*, England, sends that paper an old and quaint account of a walnut tree, dated Nov. 17th 1817. It was as follows:

"Dimensions of walnut tree bought by Thomas Jones, gunsmith, Wrexham, of Miss Ormsby, for £60, October 15, 1809. It grew on a rock of limestone at Llanddyn farm, near Llangollen; its height was 25 yards, and its boughs covered a space of ground about 30 yards diameter; its contents in sound timber was 646 cubic feet 10 inches, besides what was cracked in falling, which was considerable. Six tons of strong boughs was used for coal props, and about two tons of faggots. The planks were all nearly sound, and converted as follows, viz., 1,630 gun stocks, 71 pair of pistol stocks, and wood for 232 chairs. When sawed, the first cut was nearly eight feet across. Several pieces were given to different gentlemen for tables and small pieces of furniture. According to a story in the neighborhood, this tree was very old. A man 95 years of age said that he remembered a bough of it being broke by the snow when he was a child, and that his grandfather used to tell the family that, in olden times, fairies used in the dead of night to celebrate their marriages under this walnut tree. In sawing this tree the cross roll over the saw pit broke and killed one of the sawyers.

Pine Lands Weakening.

The *Northwestern Lumberman* says:—"In some parts of Wisconsin there is a weaker feeling regarding logs and pine lands. Both capitalists and lumbermen are beginning to realize what the *Lumberman* has said for the past year, that it is risky to buy pine at prices that have been paid. Pine timber has a positive value, and this value should not be confounded with one that is speculative. In Michigan pine has been purchased at prices that are not likely to make the owners any money, but on the contrary, in case of a financial depression, these owners would surely be crushed. These fancy prices were due, to some extent, to the idiocy of the forestry bulletins, which have sadly deceived everybody who was not acquainted with the amount of pine there is standing.

Hardwood Wanted.

Hardwoods, of all kinds, of good quality, are wanted in all the leading markets. In Boston ash, cherry and oak, are in demand, and good hardwood of every quality is called for in New York. The *Lumberman* predicted two years ago that the time would never come again when there would be an oversupply of good hardwood lumber, and there is hardly a possibility but the prediction will prove true. With an increase of manufactories for the consumption of hardwood, and a decrease of standing timber, it cannot be otherwise. Every year the percentage of poor lumber grows larger. —*Northwestern Lumberman*.

SPRUCE IN ENGLAND.

"There has occurred no change yet in the market for spruce deals," may be taken to mean this much; that so long as the present shortage exists importers of spruce will be reducing their stocks. With many it is said that this reduction has nearly approached its lowest limits. It is certain that the stocks of spruce now held by nearly all the inland merchants must have reached a low state. If no heavy arrivals come into the west coast ports during the next month or so, we shall, in all probability, see the occurrences of an active demand and a limited supply facing each other. The result of this can hardly be otherwise than that prices will be again forced upwards. Lower port deals especially may be expected to be dearer, as, if for no other reason, it will be largely for this sort that an active demand may be anticipated to arise. But there are other well-known reasons for the supposition that lower port deals will be more than proportionately dear. Of course, sooner or later, the requirements of the market will be met, and plenty of spruce deals will reach this side. But what proportions will the forthcoming supply assume? is the all-important question of the moment. Probably four-fifths of the spruce buyers inland are "in the market" for stock at this moment, and the number of buyers who are "open to buy," naturally enough, increases every day.—*Timber Trades Journal.*

RESTORING FORESTS.

It has been urged that the native pine forests in New England may easily be restored to a dignified importance by a systematic effort. All over this region are found great tracts of light soil, on plain and hillside, that is not worth cultivating for farm products, but which can be made available for pine-growing. Experiments recently made on the Shaker settlement in England, Conn., have had gratifying results, seed planted in sandy soil in 1869 having produced a dense growth of trees that are now 12 to 16 feet high. If there are conditions under which the growing of forests can result practically it is in such sections as that described above. Where the land is naturally adapted to the growth of timber more than for other purposes, it is strange that efforts in the direction of tree-growing were not made earlier, so that results could have been had at a time when they would be the most acceptable.—*Lumberman's Gazette.*

WOOD STAINS.

Herr Leo, pharmacist, of Bensheim, Germany, recommends the following stains for oak, pine, beech, poplar, etc.

1. Yellow stain.—Wash over with a hot, concentrated solution of picric acid, and when dry polish the wood.
2. Ebony black.—Wash with a concentrated aqueous solution of extract of logwood several times, then with a solution of acetate of iron of 14 degrees, Raume, which is repeated until a deep black is produced.
3. Gray.—One part of nitrate of silver dissolved in 50 parts of distilled water; wash over twice, then with hydrochloric acid, and afterwards with water of ammonia. The wood is

allowed to dry in the dark, and then finished in oil and polished.

4. Light walnut.—Dissolve one part of permanganate of potassium in 30 parts of pure water, and apply twice in succession, and after an interval of five minutes wash with clean water, and when dry oil and polish.

5. Dark walnut.—Same as for light walnut, but after the washing with water the darker veins are made more prominent with a solution of acetate of iron.

6. Dark mahogany.—Introduce into a bottle 15 grains alkanet root, 30 grains aloes, 30 grains powdered dragon's blood, 500 grains 95 per cent alcohol, closing the mouth of the bottle with a piece of bladder, keeping it in a warm place for 3 or 4 days, with occasional shaking; then filtering the liquid. The wood is first mordanted with nitric acid, and when dry washed with the stain once or oftener, according to the desired shade; then the wood is dried, oiled and polished.

7. Light mahogany.—Same as dark mahogany, but the stain being only applied once. The veins of true mahogany may be imitated by the use of acetate of iron skillfully applied.

A Sensible Definition of Forestry.

Dr. Bernhard E. Fernow, of Slatington, Pa., defines forestry as follows:—"As the idea connected with the term forest is vague and undefined, I am desirous to clear the conception of what may or ought to be called a forest. When we speak of a forest in connection with the science of forestry, we do not mean a mere collection of trees, a wood, or a park, a plantation, but an aggregate of trees or woodlands which are intended and so set aside for the production of timber or lumber. If we speak of planting and cultivating forests, we do not mean the laying out of parks or groves, which have a very different object in view, which present very different conditions of tree growth, and require, in consequence, very different methods of culture. Forestry has nothing to do with the planting of fruit or ornamental trees, nor, indeed, with single trees as agriculture does not consider the individual wheat plant. The object of forestry is a financial effect, which is represented by the highest rent from the soil through the cultivation of the same for timber growth.—*Northwestern Lumberman.*

Laid on the Shelf.

Mr. Thos. Claydon, Shelburne, Ont., writes: "I have been suffering with a lame back for the past thirty years, and tried everything I heard of without success. Not long ago I was persuaded to try St. Jacobs Oil. I purchased a bottle, and, strange to say, before I had used it all, I was perfectly cured. I can confidently recommend it to any one afflicted. No one can speak too highly of its merits." Mr. W. E. Weekley, also of Shelburne, thus mentions a matter of his experience: "I have been a sufferer with rheumatism for years. I was laid up with a severe attack a short time ago, and I can truly say that St. Jacobs Oil produced the quickest relief that I ever experienced. I cheerfully recommend it to every sufferer."

One dose of Baxter's Mandrake Bitters will relieve Sick Headache. One bottle effects a cure. Price 25c. per bottle.

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Sept. 31st, 1881 and 1882, and also the Consumption for the month of Oct., 1881 and 1882:—

	Stock, Oct. 31st, 1882.	Stock, Oct. 31st, 1881.	Consumption for the month of Oct. 1882.	Consumption for the month of Oct. 1881.
Quebec Square Pine.....	377,000 ft.	460,000 ft.	405,000 ft.	345,000 ft.
" Wancy Board.....	340,000 "	290,000 "		
St. John Pine.....	Nil "	5,000 "	36,000 "	5,000 "
Other Ports Pine.....	52,000 "	39,000 "	10,000 "	20,000 "
Red Pine.....	80,000 "	53,000 "	9,000 "	5,000 "
Pitch Pine, hewn.....	759,000 "	619,000 "	127,000 "	159,000 "
" Sawed.....	589,000 "	372,000 "	73,000 "	129,000 "
Planks.....	91,000 "	65,000 "	11,000 "	23,000 "
Dantzic, &c. Fir.....	47,000 "	56,000 "	35,000 "	27,000 "
Sweden and Norway Fir.....	18,000 "	5,000 "	2,000 "	
Oak, Canadian.....	357,000 "	410,000 "	51,000 "	181,000 "
" Planks.....	80,000 "	129,000 "	53,000 "	33,000 "
" Baltic.....	45,000 "	68,000 "	3,000 "	4,000 "
Elm.....	71,000 "	47,000 "	22,000 "	15,000 "
Ash.....	22,000 "	23,000 "	12,000 "	22,000 "
Birch.....	54,000 "	96,000 "	36,000 "	59,000 "
East India Teak.....	34,000 "	25,000 "	19,000 "	2,000 "
Greenheart.....	129,000 "	34,000 "	2,000 "	5,000 "
N. B. & N. S. Spruce Deals.....	13,154 stds.	16,076 stds.	6,882 stds.	8,978 stds.
" Pine.....	550 "	845 "		
Quebec Pine & Spruce Deals.....	6,541 "	9,877 "	3,193 "	2,829 "
Baltic Deals.....	4,177 "	3,781 "	1,802 "	1,104 "
" Boards.....	664 "	280 "	213 "	23 "
" Boards Flooring.....	2,455 "	2,900 "	908 "	630 "

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Lumber, Lath, Shingles, &c.

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DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY
TOKER & Co. PETERBOROUGH.

Terms of Subscription:

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Per line, for three months..... 20
Per line, for first insertion..... 10
Per line, for each subsequent insertion to 3 mo's..... 05
Cards not occupying more than 12 lines (1 inch) per annum..... 8 00
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Advertisements intended for insertion in any particular issue should reach the office of publication at least four clear days before the day of publication, to insure insertion.

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

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

PETERBOROUGH, Ont. DEC. 1, 1882.

THE Thunder Bay Sentinel says:—A tug with two schooners in tow carrying 1,000,000 feet of lumber for the Winnipeg market, is on the way from Georgian Bay.

It is estimated that the United States annually consumes about 1,700,000 tons net, of charcoal, 60 per cent of which is employed in the manufacture of iron.

MR. A. GRANT'S raft of square timber, which was coming down in tow of the tug Canada, has been placed in winter quarters at Sorol. The timber coves are now all closed for the season.

ENGRAVERS are finding it difficult to procure good boxwood. The box forests of Turkey, upon which the bulk of the supply depends, are being wastefully cut, and few trees are planted.

ACTIVE preparations for a big log crop are being made in the Duluth, Minn., district, and the prospect is that there will be a heavy increase over former seasons in the put-in. Men are reported scarce.

THE Northwestern Lumberman says:—Forestry experiments in the East have demonstrated that planting the seeds is successful where transplanting fails. Several small groves have been produced in that way, and pines are being introduced in a fragmentary way on many worn out farms.

A **LOCAL** paper says that at Bay City, Mich., though shipments of lumber have been heavy throughout the season, a large amount is piled on the docks, and that if November should be an open month, so that the mills continue running, there will not be room enough to pile the output.

We have to apologize to the **Chicago Lumber Trade Journal**, for having inadvertently attributed two articles, one on "Timber," and the other on "Forestry," which were reproduced from it, to the **London Timber Trades Journal**, instead of giving the credit as was due to our Chicago confrere. The similarity of name caused the mistake.

A **TELEGRAM** from Quebec dated Nov. 21st says:—Our Quebec correspondent telegraphs to day:—Several sales of spruce deals have taken place lately, aggregating upwards of 400,000 standard. The prices have not transpired, but they are supposed to be in the vicinity of \$40 for firsts, \$27.50 for seconds and \$24.50 for thirds, 20 per cent. oddments, all next season's cut.

ENGLAND imports some 10,000 tons of cork per annum, and the quantity is yearly increasing, notwithstanding the introduction of many stoppers and substitutes for corks, such as plugs of wood, whose fibres have been specially softened for the purpose, India rubber and other materials. The French Government is giving special encouragement to the plantation of the cork oak in Algiers, and the same thing, no doubt, will be done in Tunis. It is said that the tree will grow equally well in India, Central America, the West Indies, many parts of Africa and Australia, and in the South Sea Islands, and the foundation of a profitable industry might be established by introducing these tree, and starting their systematic cultivation.

H. B. RATHBUN & SONS (limited) seek incorporation under the Joint Stock Companies Act to enable the company to carry on in Canada, Great Britain, the United States, and elsewhere the business now carried on by the firm of H. B. Rathbun & Sons in all its branches as manufacturers, millers, shipbuilders, vessel-owners, merchants, traders, carriers, and otherwise. The chief place of business shall be at Deseronto. The applicants are Hugo Burghardt Rathbun, manufacturer, &c.; Edward Wilkes Rathbun, manufacturer; Frederick Sherwood Rathbun, manufacturer; Herbert Burt Rathbun, gentleman, and Louise Rathbun, spinster, all of Deseronto. The first or provincial directors of the Company will be Hugo Burghardt Rathbun, Edward Wilkes Rathbun, and Frederick Sherwood Rathbun.

EXPERIMENTS made by F. E. Kidder, and reported in the last issue of the Journal of the Franklin Institute, show that spruce beams loaded to one-half to two-thirds their breaking strain, finally break after a long and steady deflection, which continually increases until the final rupture occurs. If substantiated by further experiments, this fact will go far toward explaining the frequent falling of mill and warehouse floors, under loads supposed by the builders to be perfectly safe. The floors of all such buildings should be sufficiently strong to carry at least three times the weight that can, by any possibility, be put on them, and at least five times as strong as the ordinary load. Where there is running machinery in the building which is likely to produce jar or tremble, these figures must be exceeded, as the effect of a continuous jar and strain combined is very destructive to the buildings in which they are found.

LAKE WINNIPEG TIMBER.

We take the following extract from an account of the country about Lake Winnipeg as published in the *Toronto Globe*:—

"Lake Winnipeg is larger than Lake Ontario, although its waters are not nearly so deep. Its shores on both sides are clothed with dense forests of fine timber, chiefly poplar, birch, and tamarack. Its surface is dotted with innumerable islands, especially on the western shore. These islands like the banks of the lake, are covered with timber down to the water's edge. A sail through these islands in the summer time is delightful.

"There are very few settlers on the shores of Lake Winnipeg as yet, but large tracts of land are being taken up towards the south on free grant and pre-emption principle. Large timber limits are also being taken up. There are only two places of any size on the lake, Fort Alexander on the East and Gimli on the West. There is little of interest around Gimli, which is an Icelandic settlement. Fort Alexander is, however, a good-sized place, there being about 400 persons, whites, Indians, and half-breeds, living there. The fort stands on the Winnipeg River, a fine stream, which is navigable only eight miles up on account of the falls. There are two saw mills, one at the mouth of the river

owned by Wakeley & Burrows, and the other eight miles up, owned by Adams & Schneider. Each mill turns out about 3,000,000 feet per annum. The mill at the mouth of the river is run by steam power, that up the river by water power. The lumber when ready for the market is taken up the Red river in barges. Between the hands at the mills and those employed on the barges and at Colville landing, where the lumber is transferred to the cars, not less than 400 men are employed. That number will be greatly increased next year. The work of transhipment will be done chiefly at this town next season, as the landing place for the Selkirk and Winnipeg Railway will be far more convenient than that on the east side of the river.

"A great many small limits have been taken up along the shores of the lake, and some of them go far back. On the small limits the cost of lumber to the party taking it out is from 12c to 15c. per cord. In cases where the limits are ten miles square or over, the cost is not over half what is stated above. The wood is dense, the yield being from seventy to eighty cords to the acre.

"As the lumber interests of the lake district are being gradually developed the country will be better known and its beauties and wealth laid bare. Some idea can be formed of the enormous wealth of timber on the shores of Lake Winnipeg when it is stated that an estimate put it as being large enough to supply the whole province with timber and fuel for three generations to come."

LONGFORD MILLS.

The *Orillia Packet* says:—Both the mills of the Longford Lumbering Company have been closed down for the season, on the 10th and 11th of November respectively. On the 17th day of April last steam was got up in the mills, with a full crew of about 100 men, and the season finished without as many changes as was anticipated at the outset from the prospects of scarcity of men. The mills for the full season were fully manned every day owing largely to the good feeling always existing at this place between the company and their employees; no breaks of any size occurred from start to finish, the lost time on any account would not amount to a full day's work altogether. The quantity sawn was over the average, the two mills together sawing 17½ million feet. The large mill was in charge of Mr. Robert Calderwood, with Mr. D. J. Boothwick as engineer; and the small mill was in charge of Mr. Wm. F. Morrison, with Mr. James Bell as engineer, to which officials the success of the season was largely due. On the 7th of November the company made it known that the mills would be closed on the 10th instant, and on that evening the employees would be the recipients of a supper and on entertainment. Arrangements were made at once to invite a number of their friends to partake of their festivities. On that evening each man called at the office and received in an envelope the balance of his wages, with an extra amount of 5 per cent. added to it from the 15th day of August. Every man in the employ expressed himself as being perfectly satisfied with the treatment he has received, and many were the expressions of thankfulness to the company. At 6 o'clock p. m. the supper bell rang and the men from both mills filed into the spacious dining hall of the large boarding house, where four large tables were overflowing with all the good things of the season, got up in the usual first-class style by mine host and hostess Mr. and Mrs. Cox. Among those present on the occasion were Wm. Thompson Esq., President of the Company, Mr. George Thompson, director, and Mr. Maxwell Hall, Secretary, with every employee, numbering 120 persons. After ample justice had been done to the good things provided, the tables were taken out of the spacious hall and splendid music provided, the visitors arriving at intervals, swelling the crowd to fully 300 persons; dancing and merrymaking being kept up till day break next morning, without a single improper word or act to mar the pleasure of the party. On Saturday the bulk of the men were re-engaged by the secretary to work in the company's camps, where they have now about 300 hands and 35 span of horses actively engaged making logs for next year's cut. The

company are to be congratulated on having secured such an industrious and hard working crew of mill hands and the successful issue of the season's operations.

MIDLAND, ONT.

NEW MILL.—The *Free Press* says:—Mr. Paxton with a force of carpenters and millwrights has commenced work on framing the timbers for Cook Bros. mill at Algoma.

MEN FOR THE BUSH.—Alf. Green has again turned up from Lower Canada with 120 good able-bodied men for the bush. These men have come all the way from Gaspé, induced by the high wages paid for work in this lumbering districts.

STILL RUNNING.—We hear it is the intention of all the mill owners to run their mills until "Jack Frost" shuts them down with a snap so severe that the small boys will blow their fingers, their grandfathers hug the fire, and the aborigine poke his moccasins in the ashes for warmth.

LOSING A BOOM.—On Saturday night Nov. 11th, the cedar boom at McLeod's mill was cut loose by some miscreant miscreant—result—cedar scattered all over the bay. We don't often favor lynch law, but believe if the rascals are caught this is a case in which it might be resorted to with beneficial results. The law usually wholesome and effective would fail to strike with sufficient force. We recommend a rope and a tree.

EXTENSIVE LUMBER SHIPMENT.—On Tuesday morning, Nov. 6th, there left the dock of the British Canadian Lumber and Timber Co., the steam barge Tecumseh, with her consort, the Dot, laden with about one million feet of lumber, consigned to Mr. W. C. Wells, of Duluth, for Winnipeg. These were probably the two first loads of lumber that have been despatched to the North West since that market has opened for Canadian lumber and were carefully selected by Mr. Frank Weston, agent of J. & F. N. Tennant, Toronto, who was assisted by Mr. Wells himself during the progress of loading. Mr. Wells intends to ship largely from here the coming year, and on his return to purchase we shall gladly welcome him to our village.

MONTREAL NOTES.

The trade in deals has been unusually heavy this year from this point, 45 vessels having cleared against 27 last year. This business until very recently was monopolized by Quebec shippers. It is explained that the cause of the old capital being it is the difficulty it had in meeting the demand of the 'longshoremen of the Ship Labourers' Union, whose charges for labor are so exorbitant that shippers prefer this port. Deals from Three Rivers are sent to this port by rail in preference to Quebec. The above is the principal reason given by the shippers.

The lumber trade this season appears to have been the best done since 1872-73. It has been steadily going on since the opening of navigation, most of the cargoes have been for the River Platte and other South American ports. In May the first vessel sailed, and this month the last of them leave. So far no fewer than 49 vessels have cleared. The manner in which Montreal has been absorbing the lumber trade may be guessed when it is shown that from other ports on the St. Lawrence, including Quebec, only 2,607,480 feet were shipped, all of which was spruce. The whole quantity of lumber shipped from the St. Lawrence ports to the River Platte is 19,590,930 feet of pine, 4,653,995 feet of spruce, 79,100 pickets, and 508 spars, or in all 24,419,827 feet—an increase over last year of 8,000,000 feet, of 14,000,000 as compared with 1880, 16,000,000 as compared with 1877, and 21,000,000 as compared with 1876, when the trade had reached its lowest point.

SHIPMENTS TO SOUTH AMERICA.

The *Montreal Witness* says:—Canada's most important export trade outside of grain and dairy exports, is that of lumber and timber. Next to our fertile lands, our magnificent primeval forests are our greatest source of wealth. Few people have any idea of the large share which Montreal as a port does in the export trade of lumber. Owing to the want of wharf accommodation higher up, and also to the fact

that it is a more convenient situation for the lumber trade, the wharves devoted to lumber are below the St. Mary's current at Hochelaga. The visitor to the harbor who may gain some idea of the immense trade we do in grain by the sight of the many busy elevators and barges at work alongside of the stately ships, sees nothing of the great lumber hills that are constantly being added to and taken from a couple of miles below. Some idea of the lumber trade may be formed from the shipments of Montreal to the River Plate in South America alone. There are only two of the many lumber firms engaged in the trade, namely, the "Export Lumber Co. limited," and the "Shopard and Morse Lumber Co." The trade commences late in June, and ends early in November, being thus confined to a period of a little more than five months. The trade increases during the months of July and August reaching its highest point in September, and then falls off greatly during October. In May 1 vessel loaded with lumber for the River Plate cleared, in June 9 vessels, in July 11 vessels, in September 16 vessels, in October 11 vessels and in November 1 vessel. In all 49 vessels. The crafts engaged in the trade are sailing vessels, carrying from 100,000 feet to over 800,000 feet of lumber. A vessel seldom appears twice during the same season. Judging from their names, such as Ariete, Mallamo, Wawolench, Piskretagun, Beaver, Suga, Preciosa, &c., there are crafts of all nationalities represented in the trade.

The total number of feet of lumber shipped to the River Plate was 21,627,460, besides 85,000 pickets, which are not included. Of this amount over 19,590,945 feet was pine lumber, of the trade in which from the St. Lawrence with South America Montreal possesses the lion's share. The remainder was spruce, of which 2,046,515 feet were shipped.

From other ports on the St. Lawrence, including Quebec, only 2,607,480 feet were shipped, all of which was spruce. From Sault au Cochon 1 vessel sailed, from Chicoutimi 2, from Grand Bay 1, and from Quebec.

A recapitulation of the whole trade shows that there was shipped from the St. Lawrence port to the River Plate 19,590,930 feet of pine, 4,653,995 feet of spruce, 79,100 pickets, and 508 spars, or in all 24,419,827 feet of lumber. This is an increase as compared with last year of 8,000,000 feet, of 14,000,000 as compared with 1880, 16,000,000 as compared with 1877, and 21,000,000 as compared with 1876, when the trade had sunk to its lowest point. The following shows the shipments during the last thirteen years:—

SHIPMENTS.	
1870.....	25,145,192
1871.....	16,005,935
1872.....	23,234,968
1873.....	36,073,919
1874.....	16,262,293
1875.....	10,123,000
1876.....	3,437,000
1877.....	8,787,928
1878.....	10,865,246
1879.....	12,476,150
1880.....	10,420,080
1881.....	16,147,941
1882.....	24,419,817

MANITOBA'S WOODS.

At this season of the year, when the mosquitoes have disappeared, a quiet walk in the woods of Manitoba is exceedingly interesting to anyone who loved a stroll in the great forests of Ontario, and a close observation as to the difference which exists between the trees of this country and those of the great timber belt of the eastern province must ever afford matter for agreeable contemplation. In Ontario the woods are usually composed of maples, elms, beeches, basswoods, with a proportion of evergreens, the hemlock and balsam being the most common, except where the pine flourishes. The underbrush is mostly of the same species as the larger trees, unless on low ground, where blue beech may be discovered.

In this country, as much of the land is wholly destitute of timber, nature seems to take delight in crowding together along the rivers and lakes an infinite variety of trees, bushes, and vines. The water helps to protect them from the great fires which periodically sweep the plains, and the thickness of the grove enables the trees and bushes to give each other shelter from the cold winds and intense frosts of winter. As the traveller advances towards the woods he will notice the wild fringe of hazel, wild cherry, small poplar, buffalo berry, and scrub oak which encircle the trees that compose the larger for-

est. At this season of the year the hazel bushes are loaded with nuts of good size and fine flavor, and in many spots a two bushel bag could be filled in a very short time. When the wanderer enters the thicker elms amongst the larger trees he will everywhere observe the heavy rich red clusters of the high bush cranberry, the fruit being in such profusion that a large basket can be filled in an hour. A peculiarity of these berries is their readiness to hang in bunches on the bushes long after the winter sets in, the juice and flavor being improved by the frost.

The principal tree in the Manitoba woods is the poplar, the next in importance is the oak, and near the rivers will be noticed large elms. A very beautiful tree is the ash-leaf maple. Its fresh, green leaves open out early in the spring. It is a most vigorous grower, and bears transplanting remarkably well. Were its qualities known it would be valued as an ornamental tree in any northern country. In the spring the ash-leaf maple yield a sweet sap, from which excellent sugar can be made, the chief trouble being that at the time the sap flows the flooding of the river makes it difficult to reach the trees. On the shores of the streams which enter the Red river, and especially near their mouths, basswood grows in great abundance, and ironwood of a large size can be met with. In this district these trees are not found, although sometimes good ash can be discovered; a few white beech occupy a place in the woods, and occasionally grow to a good size, but the tree is not common. Partridges, rabbits, bluejays, chick-a-dees, chipmunks, and red squirrels are plentiful in the bush, and, excepting the chipmunks, are to be noticed even in the winter months. Black squirrels are not found in Manitoba.—*Pilot Mound Signal.*

A. CHARD, of Sterling, in a recent letter states that he met with an accident some time ago, by which one of his knees was severely injured. A few applications of Hayward's Yellow Oil afforded immediate and complete relief.

Important Auction Sale
OF
VALUABLE
Timber Limits

In the High Court of Justice,
Chancery Division.

M'TIERNAN VS. FRASER.

Pursuant to the order for sale made in this action dated the 25th day of October, 1882, there will be sold at Public Auction by and with the approbation of William Marshall Matheson, Esquire, Master at Ottawa of the Supreme Court of Judicature for Ontario, at the Grand Union Hotel, at the City of Ottawa, on THURSDAY, the 21st DAY OF DECEMBER, 1882, at 2 o'clock p. m., the following Timber Limits:—

PARCEL No. 1.

Limit on the River Dumoine, License No. 300 for season 1881-2, issued by Crown Lands Department of Quebec, area 30 square miles. This limit is in the Province of Quebec and is situated along the east shore of the River Dumoine, about 42 miles from Des Joachims on the Ottawa River. It is easy of access and has a good road leading to it from Des Joachims. It contains a large quantity of white pine of excellent quality and for the most part of large size; there is also some red pine of good quality. Timber cut thereon can be easily driven through Mason Creek and North River, (both well improved streams), to the River Dumoine, and thence along the River Dumoine to the Ottawa River. The distances for hauling timber vary from one-eighth of a mile to five miles, but generally less than three miles. With this limit there will be sold the right to use the farm and depot used in connection therewith known as North River Farm, and situated about the centre of said limit. The farm consists of about 100 acres of land, cleared. The soil is a sandy loam. On the farm are the following buildings, viz.: A good log house about 20x28 feet, one storey and a half; one log barn well finished, about 30x40 feet; good store house, about 28x36 feet; also horse stable, cow-stables, hen house, root house and other sheds and outbuildings.

PARCEL No. 2.

Limit on West side of Black River License No. 239 for season 1881-2, issued by Crown Lands Department of Quebec, area 50 square miles. This limit is in the Province of Quebec, is situated along the west side of Black River, and is about five miles in a north-easterly direction from the north-east corner of parcel No. 1. It is easily reached by road leading from Des Joachims through Dumoine Limit. It contains a large quantity of white pine of very good quality. Timber cut thereon can be driven without any difficulty through two good Creeks, known as Coughlin Creek, and Upper West Branch Creek, to Black River, and thence along Black River to the Ottawa River.

CURRIE BOILER WORKS

ESTABLISHED 1852

MANUFACTURERS OF

STEAM BOILERS.

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

CURRIE, MARTIN & Co.

Esplanade, Foot of Frederick Street, TORONTO.

July

The distance for hauling timber will average about 2 1/2 miles. With this limit there will be sold the right to use the farm and depot used in connection therewith, known as Hope Farm. This farm is situated about 15 miles from said limit, and connected with it by a good road on a limit owned by Millar and Grant. It consists of about 200 acres of land, cleared. The soil is loam. On the farm are the following buildings, viz.: double shanty, about 26x52 feet, two log barns, with shingled roofs, two log stables capable of accommodating 32 and 14 horses respectively, store house, granary, cow house, cow sheds, hen house and root house.

PARCEL No. 3.

Limit on East side of Black River, License No. 303 of season 1881-2, issued by the Crown Lands Department of Quebec, area 50 square miles.

This limit is in the Province of Quebec, and is situated along the east side of Black River, opposite parcel No. 2. The timber thereon is white pine of very good quality. Timber can be driven without difficulty through Cavreau Creek and Black River to the Ottawa River.

With this limit there will be sold the right to use the farm and depot used in connection therewith, known as the Cavreau Farm, and situated on the edge of a lake on Cavreau Creek, about 3 1/2 miles from Black River. This farm is on the limit and consists of about 100 acres, cleared. The soil is good loam. On the farm are the following buildings, viz.: Log house about 20x26 feet; two cedar log barns, one about 30x40 feet, the other about 26x56 feet, one stable capable of accommodating about 20 horses, cow house, blacksmith's shop, hen house and root house.

PARCEL No. 4.

Limit on Black River and River Coulonge, License No. 242 for season 1881-2, issued by Crown Lands Department of Quebec, area 15 square miles. This limit is situated along the Eastern line of parcel No. 3. It is well timbered with white pine of fine quality. Timber can be easily laid on either Bruce Lake or Bruce Creek and driven to River Coulonge, and thence along the Coulonge to the Ottawa River.

All the said limits are easy of access, being a convenient distance from the Ottawa River.

The said limits will be sold subject to reserved bids fixed by the Master in parcels as above mentioned.

All hay, goods, chattels and shanty rigging on each parcel belonging to the partnership of McTiernan & Fraser, may at the option of the purchaser of each parcel be taken at a valuation to be subsequently fixed by the said Master.

TERMS OF SALE—The purchase money is to be paid as follows:—Ten per cent. to be paid to the vendors' solicitors at the time of sale; a further sum sufficient to make up 25 per cent. thereof within twenty days from the day of sale, to be paid into Court to the credit of this cause, and the residue thereof to be paid into Court at any time within four months from day of sale with interest thereon, at the rate of seven per cent. per annum from the day of sale.

All conveyances, searches, transfer fees, etc., payable to the Crown, are to be at the expense of the purchaser. In all other respects the terms and conditions of sale will be the standing conditions of the Chancery Division of this court.

Further particulars may be had from Messrs. Scott, MacTavish & MacCraken, or Messrs. Pinhey & Christie, Solicitors, Ottawa.

Dated this 14th day of November, A. D., 1882.

W. M. MATHESON,
Master at Ottawa.

SCOTT, MACTAVISH & MACCRACKEN,
Vendor's Solicitors.

2123

Wanted.

A PARTNER that understands the SAW MILLING BUSINESS, with capital. For information address JAMES B. DICKSON, Pembroke, Ont. 2110

WANTED.

BLACK ASH PLANK

Sound, Square Edged and largely clear of knots; 3x8 to 18 inches wide, 10 to 16 feet lengths. Can use it green. Quote for 3 to 6 cars per month, delivered at Boston, Mass.

ROBERT C. LOWRY,
Wholesale Lumber,

2114

55 Pine Street, New York.

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Shingles, Doors, Sash, Flooring, &c.,

WANTED,

STATE QUANTITIES AND PRICE TO
SHORE & DAVIS,

Head Office, 514 Main Street, Winnipeg, Man.

J. L. Goodhue & Son

MANUFACTURERS OF

Leather Belting!

—AND—

Patent Lace Leather.

2124 **DANVILLE, P. Q.**

\$500 Reward!

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 C. 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. w46d112L22

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, Weakness, Mental Depression, Softening of the Brain, resulting in Insanity and leading to misery, decay and death, Premature Old Age, and Spermatorrhoea, 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. Guaranteed issued only by ORMOND & WALSH, sole authorized Agents for Peterborough, Ont. JOHN C. WEST & CO., Sole Proprietors, Toronto, Ont.

THE ENGLISH LUMBER TRADE.

LIVERPOOL, Nov. 1.—Westerly winds of late have brought forward an excessive number of vessels, and the import, therefore, will look larger than usual in comparison, and, with the exception of spruce deals, every article has fairly maintained its firm value, and when those arrivals have been cleared away a firmer feeling will take place, as at the present price only loss can be the result of nearly all shipments, seeing the high rate of freight and autumn insurance; otherwise trade is generally sounder, and the present stock will not be more than the requirements, as shown by the tables. Money is easier.

COLONIAL WOODS.—Of white pine the stock is firmly held. Several cargoes of Quebec have been sold at full rates, small good fair average square realized 2s. 2d. to 2s. 2½d. per foot, and prime waney 2s. 7½d. per foot. A cargo of Newfoundland pine has been sold at 23d. per foot. Red pine has been sold, but prices have not transpired. Ash has changed hands at from 2s. 2d. to 2s. 3d. per foot. Elm is worth 2s. to 2s. 1d. per foot and walnut from 5s. 6d. to 6s. 7d. per foot, according to size. Oak has been sold at 2s. 11d. to 2s. and 1d. per foot. Oak planks of prime quality realized 2s. 8d. to 2s. 10d. per foot, and inferior 2s. to 2s. 5d. per foot. Birch is in fair demand; New Richmond realized 17d., and 516 logs from St. Margaret's Bay realized at auction fully 18d. per foot. New Brunswick and Nova Scotia spruce deals, strange to say, in spite of the light import and enhanced cost of bringing them to market, have receded in price from the rates paid early in the month, which were fully 5s. to 7s. 6d. per standard higher than lately. This is owing to the forced auctions, as more could have been obtained privately, viz. St. John, £8 5s. to £8 10s.; other ports, £7 18s. 9d. to £8 5s., while at auction sales St. John, per Henry, averaged £8 7s. 6d. per standard, and later, per Kate Burrill, £8 2s. per standard. Yesterday two St. John cargoes were sold by private at £8 per standard ex-quay. Several cargoes are no seeking buyers at the out ports; Dalhousie have realized £8 5s.; Miramichi, £8; Bridgewater £8 2s. 6d., and Halifax £8, all c. i. f. terms. Pine deals have been sold at auction—for Miramichi, 1st quality, £13 per standard (2nd quality not sold), and 3rd quality, £7 15s.; Dalhousie, 1st quality at £13, but for 2nd quality £8 only was offered. Quebec pine deals have come forward chiefly on timber merchants' account; 1st and 2nd quality are in good demand; they are quoted at £23 10s. for 1st, £17 for 2nds, and £10 10s. to £10 15s. for 3rds Ottawa. Quoboc pine and West India staves are without any change. Palings have been sold at 70s. per 1,200 for 4 feet x ½ inch. Laths and lathwood: No sales.

The following is a statement of stocks on hand on Oct. 31st:—

	1882.	1881.	1880.
Yellow Pine—			
Quebec.....cubic ft.	377,000	460,000	520,000
Waney..... "	340,000	290,000	170,000
St. John, &c., "	52,000	44,000	65,000
Total Yellow pine, c. ft.	769,000	794,000	755,000
Red pine.....cubic ft.	60,000	53,000	13,000
Baltic &c., Fir "	63,000	61,000	265,000
Oak, Canadian, &c. "	357,000	410,000	312,000
Baltic, "	45,000	68,000	40,000
Planks, Can., &c. "	88,000	129,000	no rec.
Elm..... "	71,000	47,000	27,000
Birch..... "	54,000	93,000	187,000
Pitch pine, hewn, c. ft.	759,000	619,000	318,000
Pitch pine, sawn, c. ft.	589,000	572,000	116,000
Pitch pine, planks c. ft.	91,000	65,000	14,000
Total pitch pine, c. ft. 1,439,000	1,066,000	448,000	

Jas. Smith & Co.'s Circular.

THE DOCK STOCKS.

The *Timber Trades Journal* of Nov. 4, says: The usual monthly statement of the dock stocks, which we publish in this number of the *Journal*, will doubtless be studied with a good deal of interest by those who watch the market attentively at this critical juncture. As relates to a comparison with last year, Baltic stocks generally are a great deal heavier now than they were at a similar period twelve months back. This we were to some extent prepared to witness, for it was out of the question that, with such a heavy balance of stock standing over in

the spring of the year, the additions made during the summer and fall should not bring the totals at the termination of the shipping up to figures largely in excess of 1881. There were hopes that the demand might be more than usually active this year, and some thought that the war in Egypt would stir up trade, and in that way give a fillip to the consumption, and so help to carry off the heavy additions that were daily arriving; but such expectations were suddenly dashed to the ground by the abrupt termination of the Egyptian campaign, and, though freights were not affected as so much anticipated, there was nothing to come to the relief of the market to prevent its overstocking.

Colonial goods, we are glad to see, are not overdone, nor are the additions to the stocks of spruce very considerable, though amongst the cargoes not taken into stock it may be found that the stocks of lower port deals figure somewhat prominently. Up to the present time, however, stocks of last year of pine as well as spruce are much heavier than the present. The additions made to the stocks of Baltic goods during the month of October amount to some 80,000 pieces of deals and 54,000 battens. Ends have decreased during the interval named, pine deals have also undergone a considerable reduction, notwithstanding the fact of several large cargoes arriving during the month; the same with spruce; but till we know what the bulk of the cargoes not taken into stock on the 31st consist of, it might be erroneous to jump to a conclusion that stocks of white deals are running out. According to the dock statement on all the principal American stocks the consumption appears to have exceeded the supply, for we find smaller stocks now of pine and spruce as regards the various items of deals, battens, ends, boards, &c., than we did on the 30th of September; this is satisfactory, and should ensure good prices during the long interval between now and when further additions can be made to the stocks of these goods.

The greatest reduction during the month, however, has been on the stocks of prepared boards; these latter, which stood on the 30th of September at 4,248,451, are now 3,722,661, or less by half a million pieces than they were a month ago. This coupled with the fact that the cargoes not taken into stock of this description do not form a fourth of what they were a twelvemonth ago, seems to point to a much improved state of things in respect to goods of this class, and those who hold large flooring stocks need have no cause for uneasiness, for if we include the cargoes not taken into stock when the returns were made up, and put them side by side with those of last year, we make out there are actually less prepared boards now in the Surrey Commercial Docks than there were this time twelvemonth. When it is recollected that not so long ago there were over 6,000,000 pieces in stock at Rotherhithe, the rapid fall consumption can be better appreciated. The dock stocks are the best index to an active state of business, as the difference there represented is not apparent when goods merely change hands; hence we may safely infer that the deliveries are a true reflex of the brisk trade that has evidently been carried on in goods of the kind described during the past two months. The reduction of the stocks has exceeded a million pieces a month, notwithstanding cargoes from the shipping ports have been added from time to time.

The deductions to be drawn from this brief summary are that on pine, spruce, and flooring boards we are likely to have a good market, but in respect of Baltic deals and battens we shall have depressed prices for a considerable time to come. It is an open question whether in view of the weak values of north of Europe deals, pine and spruce can be upheld. When we note that Archangel as well as other White Sea goods feel the effects of the large stocks of Swedish goods, we are prepared to see Colonial goods share to some extent in the depression. Flooring boards also, owing to the heavy stocks of battens now in the docks, and likely to be considerably added to from day to day, will not improve as rapidly as the greatly reduced stocks would at the first blush lead us to imagine, but as they have kept firm hitherto we count on more improvement in respect to flooring than on

any other kinds. The consignments on their way are not said to be heavy, and there is no reason to believe that we shall have at the conclusion of the year as much in the docks as we had December, 1881, though at one time double the quantity was apprehended. Altogether the dock stocks do not read so unfavourably, and if we include Colonial goods in our tot-up, we do not find the market so seriously overburdened after all, though there are still over 1,000,000 pieces of deals, battens, boards &c., in excess of last year's stocks. The chief cause of uneasiness appears to be the heavy additions now said to be on their way.

THE DESTRUCTION OF THE GROMOFF STOCK.

The *Timber Trades Journal* says:—"From a St. Petersburg paper we learn some further particulars of the recent fire at the late Mr. Gromoff's yards. These large timber yards, extending one verst in length and ½ verst in width, close to the banks of the Neva, were on the 23rd October, in less than twelve hours, destroyed by fire, together with all the saw frames and labourers' cottages. The damage is estimated at millions of roubles.

The fire commenced at two in the morning in a stable situated in the centre of the yards, spread itself from thence to a planing mill, a hay rick, and a warehouse containing twenty casks of pitroloum, and then on to the timber stacks, which were soon in one immense flame, the heat being so intense that nobody could approach. It now became apparent that it was impossible to save any of the timber, and the work of the firemen was instead directed to the salvage of the adjoining houses and the ships on the Neva, in which they were successful. Together 28 engines were on the spot, and the Finnish steamer in St. Petersburg rendered valuable assistance. The danger of the fire spreading was very great at one time, but at three o'clock it was apparent that the fire would not go beyond the yards, and at six o'clock all danger was over.

The immense stock—3,000,000 deals, battens, and boards, 200,000 timber stocks, 7,000 cubic feet firewood, 50,000 pud coals—as well as a sawmill with engines of 130 horse power, planing mills, and workmen's houses, belonged to the late Mr. Vladimir Ralkow Roshnow, the heir of the late timber exporter and millionaire, Mr. Gromoff, who had left the former all his fortune on the understanding that Mr. Roshnow, for the next six years pays to the widow of the late Mr. Gromoff 300,000 roubles per annum, besides which a country mansion was left to the widow.

The damage caused by the fire is estimated at 2,000,000 roubles, of which only part—not quite 1,000,000 roubles—was covered by insurance in several companies; viz., 550,000 roubles in a Russian company of 1827, the mills in another Petersburg company, and the rest, 400,000 roubles, in an English company. Three thousand labourers and 300 foremen are through the fire thrown out of employment.

NEW BRUNSWICK FORESTS.

The following paper was contributed to the proceedings of the Forestry Congress at Montreal, by Edward Jack, Esq., Fredericton, N. B.:—"For more than twenty years I have been engaged as land surveyor and timber explorer in New Brunswick and have followed the white pine down to the mountains of North Carolina and East Tennessee and from my experience in the subject of forestry can say that the neglect of forestry in New Brunswick and Nova Scotia, as well as in the Province of Quebec, is really lamentable. In New Brunswick we make no distinction between timber and farming lands, allowing and encouraging settlers to locate themselves upon spruce and hemlock lands, the damaging result of which policy can be estimated by the loss of hundreds of thousands of dollars, while the unfortunate settler often finds himself very much worse off at the end of ten years than he was at the date of settlement. A study of New Brunswick Forestry and a proper map accompanied by a written report would show intending settlers where to place themselves; as our spruce and pine lands as well as the greater part of our hemlock lands are unfit for settlement purposes, being poor and requiring much manure to render them produc-

tive. One third of New Brunswick is in the millstone grit formation, this was once covered with spruce, pine, and hemlock, being well adapted to the growth of these trees; and had we proper forestry regulations the growth of these woods on the dry and sandy plains of the millstone grit district might be made a constant source of profit and revenue to the Province. Much of this district was destroyed by the great fire of Miramichi in 1835, and in order to show the growth of the sapling pine I may mention that four or five years ago I saw good pine logs cut on land which had been burned at that date. Tamarac roots and timber have also been cut which have grown since the date of the above mentioned fire. We have in New Brunswick very valuable tracts of hard wood lands (black birch and maple, etc.) near railways, as well as in some localities near the sea, but we have no printed information concerning their extent or position. I think we should first find out from the explorations of competent and reliable persons in what part of the Province our valuable timber (hard as well as soft) is found, and after the matter has been well discussed, determine on what course of action to pursue. Until this be done it is of little use to attempt the formation of any scheme for forest preservation."

MINNESOTA LAND FRAUDS.

The *Northwestern Lumberman* says:—"The Commissioner of the general land office is exerting himself actively and determinedly to root out the pre-emption fraud in the Duluth and St. Cloud land districts of Minnesota. There is a ring operating there which he proposes to break up. He proposes that while his tenure of office lasts not another acre of land shall be illegally obtained. Since the removal of the registrar and receiver at Duluth, the commissioner ordered hearings in a large number of supposed fraudulent pre-emption cases. Hearings in 53 cases were had before the land officials, none of the original pre-emptors appearing. Parties who claimed to be innocent purchasers from the pre-emptors, appeared and cross-examined the witnesses for the government. The testimony showed that the pre-emptors had not attempted to comply with the law in the way of settlement. The emphatic action of the department has alarmed many of the swindlers, and in later pre-emption filings, where the parties had public notice, they failed to appear and make proof of their entries. The department will hereafter cancel entries where false affidavits have been made. This course will have a direct effect on the parties who advance funds to the tools for the accomplishment of the fraud, and they will be the heaviest losers. It is the intention to indict for violation of law and for perjury those persons who have been found in the hearings to have filed the fraudulent proofs."

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c. measured and culled to Nov. 27:—

	1880.	1881.	1882.
Waney White Pine..	2,233,630	3,015,594	1,104,648
White Pine.....	4,238,067	5,640,029	7,961,065
Red Pine.....	1,046,997	1,921,868	1,456,850
Oak.....	1,708,403	2,948,296	1,318,109
Elm.....	936,354	1,027,459	714,549
Ash.....	239,272	498,582	310,769
Basewood.....	303	3,939	1,471
Butternut.....	646	3,033	2,839
Tamarac.....	30,863	27,160	51,975
Birch & Maple.....	585,464	151,742	209,661
Masts.....	4 pcs	25 pcs	33 pcs
Spars.....	23 pcs	— pcs	51 pcs
Std. Staves.....	1957.1.1	404.9.1.2	5137.0.6
W. J. Staves.....	487.7.0.3	490.0.1.10	1298.8.3.28
Bri. Staves.....	10.8.2.10	78.2.3.6

JAMES PATTON,
Supervisor of Cullers.

BAXTER'S MANDRAKE BITTERS never fail to cure Costiveness and regulate the Bowels. **SURE, safe and effectual, that old remedy, Down's Elixir, for the cure of Coughs and Colds.**

HOW IT WORKS.—Malarial Diseases, so prevalent in the Spring and Fall, such as Ague, Chill Fever, Bilious Fever, &c., depend upon an inactive state of the liver, bowels, skin, kidneys, etc., for did these outlets of morbid poisonous matter free the system properly, no sickness would result. **Burdock Blood Bitters** effectually regulates these organs, and corrects the abdominal and secretory system as well.

Chips.

CHAPMAN Brothers are operating in the northern part of Bay, near the Ogenaw county line, Mich., employing 140 men, and intending to cut 16,000,000 feet of logs.

It is stated some of the mills at Manistee, Mich., are cutting end cross-piling piece stuff, expecting to realize \$12 on it in the spring, \$2 better than the present price.

RUSSELL, BROWN & OSWALD, at Livermore Falls, Me., are making improvements in their wood pulp-mill to the extent of \$30,000. The mill is being moved and new machinery put in.

It is stated that 25 years ago a man of Winchester, N. H., sowed a worn-out pasture to pines. Now there are on the land 25,000 pine trees, ranging from eight to twenty inches in diameter.

THE cargo of walnut, ex schooner Jesse Drummond, from Chicago was sold on arrival at Quebec at \$1.10 per foot. Messrs. Dobell & Co. and Messrs. Ross & Co. were the purchasers.

The agent of the New York and Lake Champlain Transportation Company has shipped from Ottawa during the past season to the United States on American barges 16,854,671 feet of lumber.

THE Car Manufacturing Company, at Terre Haute, Ind., whose works cover 25 acres of ground, all under one roof, employs 600 hands, and when running at full capacity, turns out 300 cars per month, and 120 wheels daily.

THE Kirby-Carpenter Company lately sold the Northwestern Railway Company 350,000 ft of lumber, consisting of 2x6 stuff, and No. 2 fencing, to be used in building snow sheds in northern Iowa and southern Minnesota. The most of it was shipped to Sleepy Eye, Minn.

A MOVEMENT is afoot in Great Britain for the formation of a timber trade's association. A council of gentlemen has been formed for the purpose of constituting such an association. The secretary of the committee is S. H. Bigland, with offices at 57 Grace Church street, London, E. C.

MESSES. H. B. Rathbun & Son, of Belleville, have secured the contract for furnishing ties to the Grand Trunk Railway Company for that part of their line between Montreal and Toronto. The number of ties required is 200,000, a large part of which will come down the Moira, Trout, and Salmon rivers.

AN East Saginaw despatch of Nov. 9th says: John McCormick, employed at Smith & Adams' lumber camp on Cedar river, was killed yesterday while at work at a skidway by logs rolling over him. The body was brought to East Saginaw and shipped to the county of Grey, Ont., where his people reside.

THE Winnipeg Times of Nov. 11, says:—Nearly 150,000 feet of lumber has been brought into Selkirk from the lake within the past few days, exclusive of that required for barge and boat building, and there is more on the way up. If this supply should prove insufficient for the demand more can be brought from Colville Landing as soon as the river is frozen.

A. B. LONG & Son, cut recently from one tree, in Mecosta county, Mich., eight 16-foot logs, and one 12-foot log. The firm since last May has built five miles of railroad, and put in six near-by lakes 2,000,000 feet of logs. It is calculated that the tract will cut 60,000,000 feet, 8,000,000 feet will be put in this winter.

SINCE the establishment of charcoal works at Sharbot lake a number of similar factories have been erected in the United States, and they are getting the benefit of the local factory's early experience. The factory is now making 4,000 bushels per day. There are 3,500 bushels ready to be shipped to the Kingston market. The price is 13c. per bushel.

THE Southern Lumberman says:—The best quality of charcoal is made from maple, oak, beech and chestnut. Wood will furnish, when properly charred, about 20 per cent of coal. A bushel of coal from pine weighs 29 lbs.; a bushel of coal from hardwood weighs 30 lbs.; 100 parts of oak make nearly 23 of charcoal; beech, 21; apple, 23.7; elm, 23; ash, 25; birch, 24; maple, 22.8; willow, 18; poplar, 20; red pine 22.10; white pine, 23.

THE St. John, N. B., News says:—Wm. Richards is one of the chief operators on the Restigouche this year. He will probably average 3,000,000 feet of logs. Messrs. George and Robert Moffatt, J. Souberry, James Reed, and others, expect to cut more logs than last year, and the total cut on the Restigouche will fall little short of 15,000,000 feet.

THE Timber Trades Journal of Nov. 4, says: There has been a considerable import of miscellaneous wood goods to Clyde this week per steam liners from the States, and several cargoes of Canadian timber and deals. The large arrivals of Quebec pine deals to this port during the past five weeks (amounting to about 2,500 standards) have brought the stock up to about the same quantity as was held a year ago.

A nice body of cork pine, estimated at 100,000,000 feet, is being opened up by the building of a logging railway, 12 miles in length, from Antigo, Langlade county, Wis., on the Milwaukee, Lake Shore & Western Railway. The tract is owned by S. Bryant, of Milwaukee, Louis Sands, of Manistee, Mich., and J. H. Weed, of Oshkosh, Wis. The logs cut on the tract will be carried over the new railroad, and cut at J. H. Weed's mill, at Antigo.

THE St. Regis Falls Lumber Company proposes to build a logging road from the plant it is putting in at St. Regis Falls, N. Y., south into the forest. This line will undoubtedly be eventually extended so as to strike the Adirondack railroad. There are various rumors and conjectures as to how the company intends to "get out of the wilderness" at the north, but the Malone connection with the Ogdenburg & Lake Champlain road seems to be the favorite.

THE Winnipeg Times says:—The saw-mill at Brandon, which has just closed operations for the season, has gone through an amount of work which is surprising. Saw logs representing nearly 2,000,000 feet of lumber, were floated from the limits at Shell river last spring. Lumber has been cut at the rate of over 15,000 feet per day, and as high as 14,000 feet have been turned out in five hours. The total cut of this season has been over 1,800,000. Mr. Russell expects to bring to Brandon next spring saw logs sufficient to turn out 4,000,000 feet of lumber.

THE Timber Trades Journal of Nov. 4, says: Out of the fifty-five timber laden ships arrived in London this week, thirty-one were steamers, that continue to outnumber the sailers, which lay up now for the rest of the year after discharging. Out of this fleet the Canadian and spruce ports furnish only six vessels, while fourteen are from Cronstadt alone. Mahogany and furniture woods are also well represented in the arrivals, with a plentiful supply of deals and battens. They do not consider the importation at all excessive at the docks, and even say they do not expect the stocks will be as heavy at Christmas as they were last year.

THE Timber Trades Journal says:—Spruce deals at Liverpool are still reported to continue firm in the market, nor can we see any likelihood of their cheapening much for some months to come. Judging from the aspect of affairs on the west coast, we should say that heavy arrivals must come forward before any fall will be experienced, and a considerable time must almost necessarily elapse before such an event can occur. In estimating the strength of the market at Liverpool cognizance must, however, be taken of matters at the neighboring ports of Barrow-in-Furness and Fleetwood, into both of which places heavy importations of spruce are received.

THE Timber Trades Journal of Nov. 4, says: The continuance of westerly winds has brought up a good portion of the fall fleet, and all the quays are for the present wearing a busy aspect; but when this batch is cleared off there will remain only a comparatively small quantity to come forward, especially from the St. Lawrence. There has been a fair business done during the past week, but the pressure to make sales from the ship's side rather than put the goods into yard has weakened prices so far as spruce deals are concerned. On the other hand the import of Canadian timber is held very firmly for stiff prices, owing to the moderate stocks here and the continued firmness of the attitude taken by shippers in Canada, who will without doubt have to pay high rates for next season's wood.

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STEEL RING,

The Lightest, Cheapest and Most Durable Cant-Dog in the World.

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Chaudiere - - - Ottawa.

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TAKEN INTERNALLY, it cures Dysentery, Cholera, Diarrhoea, Cramp and Pain in the Stomach, Bowel Complaint, Painter's Colic, Liver Complaint, Dyspepsia or Indigestion, Sudden Colds, Sore Throat, Coughs, &c. Used externally, it cures Boils, Felons, Bruises, Cuts, Burns, Scalds, Old Sores and Sprains, Swellings of the Joints, Toothache, Pain in the Face, Neuralgia and Rheumatism, Chapped Hands, Frost-bitten Feet, &c.

The PAIN-KILLER is sold by medicine dealers throughout the world, Price 20c, 25c, and 50c. per bottle.

PERRY DAVIS' VEGETABLE PAIN KILLER.

Market Reports.

TORONTO.

From our own Correspondent.

Nov. 22.—The unusually fine weather of the last two weeks has had the effect of prolonging the shipping season, and vessels are still actively employed loading at our docks here, so that more lumber will be got away than was formerly anticipated, and consequently loss stock will have to be wintered over here. The demand for XXX 18 inch shingles and lath for shipment has been quite brisk and prices remunerative to manufacturers and dealers alike. The latter will now not the seller fully one-third more per M than at the same period of last season, and mill men can now manufacture lath at a profit, which has not been the case formerly, many preferring to burn up their slabs sooner than manufacture at a loss.

The retail yards are doing a good trade and few complaints are to be heard, and no surplus of stocks is to be found in any of the yards. A new retail firm has just started in the adjoining municipality of Parkdale, namely, that of I. & J. Lennox. The senior member of this firm has had ample experience and in a live pushing man, and as the business is entirely conducted by him success will doubtless follow his efforts.

The junior member of the firm of Davidson & Malcolm has retired, having been bought out by Mr. Davidson, who continues the business alone, and being a thoroughly energetic man his business is spreading out, and from personal observations I should say there is no yard of the same dimensions in this city where more lumber goes in or out, or a safer business is carried on. Inspecting the various yards on my walks through the city I noticed also that the yard owned by Hillock & Kent carried the largest stock to the square foot of any yard in the city, and I should judge from appearances that they would be able to fill any order brought to them. Most of the other yards were low in stocks with the exception of the three mentioned. The demands of the local trade has been better met by the Railway Companies during the last week or two and it is probable most of the yards will have full stocks in after the close of navigation, but should the present mild weather continue for some time longer stocks at the mills and yards will rapidly deplete.

QUOTATIONS FROM YARDS.

Table listing lumber prices for various types like Mill cull boards, Shipping cull boards, Scantling and joist, etc., with prices per 1000.

MONTREAL.

From our own Correspondent.

Nov. 23.—Navigation has now closed for the season and stocks are generally well assorted, except in some of the better grades of first class lumber which are being held at high prices. The demand for hardwood is good. Ash is still enquired for by local and American buyers quite freely, and as there is only a limited quantity in first hands will likely advance in price. There is a great scarcity of laths in the city and Ottawa manufacturers have none on hand. The American demand at this moment is quiet but prospects are favourable for a good winter's trade both home and foreign. We note an ad-

vance in the price of lath. We quote prices in the yards as under.

Table listing lumber prices for various types like Pine, 1st quality, Pine, 2nd, Pine, shipping culls, etc., with prices per 1000.

LIVERPOOL MARKET FOR CANADIAN LUMBER.

The latest advices from Messrs. Alfred Dobell & Co., of Liverpool, state that imports during September have been on a more liberal scale, but are not excessive and prices have been well maintained, except for spruce deals for which lower prices have had to be accepted. By private sale spruce deals from St. John sold at £8 10s. down to £8. Quebec waney 2s. 4d. for small average girth up to 2s. 8d. for larger sized wood.

By auction sales.—Spruce deals £8 5s. 6d @ £8 2s.

CORDWOOD.

There are few barges at the wharf, but quite sufficient for the present demand, the high prices are driving wood completely out of the market, to be superseded by coal in the near future. The dealers yards throughout the city were never so bare of stocks at this season of the year as they are at present, every one who can either buy, beg, borrow, or steal a coal stove are doing so. Prices are firm but not quotably higher. We quote ex cartage from the cars and on the wharf:

Table listing cordwood prices for Long Maple, Short, Long Birch, etc., with prices per 1000.

OTTAWA.

From Our Own Correspondent.

NOVEMBER, 10.—A severe blow to the lumbering industry in this locality has been caused by the destruction by fire of E. B. Eddy's large saw mills in Hull, on the evening of Thursday, the 2nd instant. These establishments have been damaged and burned a great many times, but the last conflagration was by far the most serious, and is considered the greatest calamity that has befallen Hull for many years. The premises covered a large area, and the following buildings were destroyed.—Large sash, door and blind factory; two large saw mills; paper mill and smithy; head offices; mill factory and machine shop; dressed lumber house, storage and packing warehouse; oil and ice house; horse stables, and pump house.

Besides the above there was destroyed a large grist mill owned by C. B. Wright, and operated by McCormack & Son. Eddy's loss is estimated at \$225,000. The large saw mill itself was valued at \$80,000. The insurances amounted to \$153,000.

The loss is 50 per cent of the policies. The origin of the fire is not very well known, but it is supposed to have caught under the large saw mill, from the heated shafting. The large match factory was saved, with the exception of the top story of the store house. Operations in it were recommenced yesterday, and business is again booming in that particular branch. The mill machinery, was partly saved and removed to another building. That portion of the machinery was immediately replaced by new machines and the manufacture of pails was begun two days after the big fire. Mr. Eddy's enterprise is so well known that it leads people to believe that before many months tall chimnies will be rearing their heads, Phoenix-like, out of the ruins of those burned, thus forming monuments that will creditably redound to the enterprise of Mr. Eddy. The insurance appraisers began their work of estimating the damage done on Monday last, but have not yet completed their labours. Not until they have finished can anything in the line of rebuilding be done. The necessary timber for the machine shop and large mill is being taken out, and these buildings will be commenced

first. It is not known if the sash factory will be rebuilt. Mr. Eddy was in Boston on the night of the fire. He returned on the following evening. He had been unwell for some months and took a trip, thinking the change of air and relaxation from the monotony of his labors, would prove beneficial. He is keeping as well now as could be expected under the circumstances. Your correspondent saw him in his temporary office on the morning after his return. He was hard at work in the midst of telegrams and letters answering his correspondence. He was not in a position to state his intentions at the time.

An item appeared in the last issue in reference to some trouble in having the logs of a number of milling establishments navigated to their respective ponds. A reflection was cast upon the Upper Ottawa Improvement Company. This was an error arising out of unreliable information. The company were not in the least to blame.

The celebrated case of McLaren vs Caldwell has not come up as yet in the Supreme Court as was anticipated. Steamboats, brigs, and barges are lying up around here. Shipping operations are nearly at an end for this season. Mr. M. J. Huntley, agent for the New York & Lake Champlain Transportation Company shipped from this city during the past season 1,695,457 feet of lumber; average per load, 152,743. The first gang of men that left this locality this season for the American shanties started to-day from this city for Potsdam N. Y. They were sent by Mr. Bedouin Renaud.

George W. Hotchkiss, Secretary of the Lumberman's Exchange, Chicago, who is at present in this city was waited upon at the Russell to-day by your correspondent. During a conversation Mr. Hotchkiss explained the nature of the operations carried on in the Exchange, which is something after the nature of the Corn Exchange, but timber is not sold in the open market, but privately if at all. The association consists of about 200 members. They meet regularly and revise stock lists, which regulates the retail price all over the North West. 2,100,000 feet of lumber will be imported into Chicago this year. Mr. Hotchkiss finds the system of grading here very similar to that of Chicago, but on an average of \$3 better price, owing, probably, to this place being nearer the Atlantic than they are. There is little dimension lumber here which forms the greater part of the trade in Chicago. One thing he said which will develop into a great source of wealth here is our cedar, for posts, railway ties, and shingles. 35,000 cedar ties were received in Chicago a week before he left and also 3,000,000 cedar posts.

The estimated cut of the saw mills in the Ottawa Valley for this season is 800,000,000 feet.

ST. JOHN, N. B.

From our own Correspondent.

Nov. 11.—The Lumber market is very quiet at present, most of the stock being in second hands, having been bought some time ago at prices ranging from 10 to 12 dollars per M. Freights are duller than what they were, owing, no doubt, to the fact that shippers are determined to hold what stock there is here until freight either falls or prices advance in England. Freights to-day may be quoted as follows:—

Table listing shipping rates for Liverpool, Bristol Channel, Ireland, etc.

SHIPPING.

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

Table listing shipping vessels like Kambira, J. H. McLaren, Flying Foam, etc., with tonnage and destinations.

COMPARATIVE SHIPMENTS 1ST. JANUARY TO DATE.

Table comparing shipments for 1881 and 1882, listing Deals, Pine, Birch, M. S. ft. Tons.

CHICAGO.

The Northwestern Lumberman of Nov. 18, says:—The lumber trade at large is settling down into a steady going habit, indicative of approaching winter. One after another the mills are shutting down, and operators are becoming absorbed in providing the next log crop. Stocks of white pine are large at all the supply points east and west, though it is asserted that at Saginaw the stock of choice lumber has been nearly all picked up, leaving plenty of the coarser kind. It is undoubtedly true that the manufacturing season closes this year with a heavier surplus on hand, proportionate to the current and prospective demand, than there was at the close of the season last year, and greater than was expected by the trade. The extraordinary demand that was counted on has not been realized, and for that reason the increased output which was to supply such demand remains over as a surplus. Still there is nothing in the present appearance that should indicate that this surplus will remain as a drug in the hands of the owners. The demand that has prevailed throughout the season has been healthy, and no amount of urging and cajoling on the part of manufacturers and holders of heavy stocks has been sufficient to force a speculative tendency.

Lake receipts fairly closed on December 15, 1881; the receipts of the first half of that month being 40,000,000 feet of lumber and 17,000,000 shingles, while from November 15 to December 15 the receipts aggregated 128,337,000 feet of lumber and 63,573,000 shingles. Present indications are no less favorable than at the same time last year for a continuance of navigation to the middle of December. As is always the case at this time in the season, many vessels are withdrawing to winter quarters, and lake freight rates are tending upward.

CARGO QUOTATIONS.

Table listing cargo quotations for Short dimension, Long dimension, Boards and strips, etc., with prices per 1000.

Receipts, and stock on hand, of lumber, shingles, etc., for the week ending Nov., 19, as reported by the Lumberman's Exchange.

RECEIPTS.

Table listing receipts for 1882 and 1881, Lumber and Shingles.

FROM JANUARY 1 TO NOVEMBER 21 INCLUSIVE.

Table listing receipts for 1882 and 1881, Lumber and Shingles.

LAKE RECEIPTS TO NOV. 15.

Table listing lake receipts for 1882 and 1881, Lumber and Shingles.

STOCK ON HAND OCT. 1.

Table listing stock on hand for 1882 and 1881, Lumber, Shingles, Lath, Pickets, Cedar posts.

BUFFALO.

Table listing Buffalo cargo lots: Upper, Common, Culls.

OSWEGO, N. Y.

Table listing Oswego cargo lots: Three uppers, Pickings, Fine, common, Common, Culls, Mill run lots, Siding, selected, 1 inch, 1 1/2 inch, Mill run, 1x10, 12 inch, selected, Strips, 1 and 1 1/2 inch mill run, culls, 1x8 selected for clapboards, Shingles, XXX, 18 inch, pine, XXX, 18 inch, cedar, XXX.

ALBANY.

Quotations at the yards are as follows:—

Pine, clear, 4 M.	57 00@64 00
Pine, fourths.	57 00@60 00
Pine, selects.	52 00@54 00
Pine, good box.	22 00@35 00
Pine, 10-in. plank, each.	00 42@00 45
Pine, 10-in. plank, culls, each.	00 22@00 25
Pine boards, 10 in.	00 22@00 25
Pine, 10-in. boards, culls.	00 20@00 21
Pine, 10-in. boards, 10 ft., 4 M.	30 00@35 00
Pine, 12-in. boards, 10 ft.	30 00@34 00
Pine, 12-in. boards, 13 ft.	27 00@29 00
Pine, 1 1/2-in. siding, select.	45 00@47 00
Pine, 1 1/2-in. siding, common.	18 00@20 00
Pine, 1-in. siding, select.	45 00@47 00
Pine, 1-in. siding, common.	18 00@20 00
Spruce, boards, each.	00 00@00 12
Spruce, plank, 1 1/2-in., each.	00 00@00 20
Spruce, plank, 2-in., each.	00 00@00 30
Spruce, wall strips, each.	00 12@00 12
Hemlock, boards, each.	00 00@00 14
Hemlock, joist, 4x4, each.	00 00@00 33
Hemlock, joist, 2 1/2x4, each.	00 00@00 14
Hemlock, wall strips, 2x4, each.	00 00@00 10
Ash, good, 4 M.	40 00@43 00
Ash, second quality, 4 M.	25 00@30 00
Cherry, good, 4 M.	60 00@65 00
Cherry, common, 4 M.	25 00@35 00
Oak, good, 4 M.	30 00@35 00
Oak, second quality, 4 M.	20 00@25 00
Basswood, 4 M.	25 00@30 00
Hickory, 4 M.	40 00@40 00
Maple, Canada, 4 M.	25 00@30 00
Maple, American, per M.	25 00@28 00
Chestnut, 4 M.	35 00@40 00
Shingles, shaved, pine, 4 M.	0 00@ 6 50
2nd quality.	0 00@ 5 00
extra, sawed, pine.	0 00@ 5 00
clear.	0 00@ 3 00
cedar, mixed.	0 00@ 4 00
cedar, XXX.	0 00@ 4 00
hemlock.	0 00@ 2 50
Lath, spruce.	0 00@ 2 50
Lath, pine.	0 00@ 2 50

BOSTON.

CANADA PINE.

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

TONAWANDA.

CARGO LOTS—SAGINAW INSPECTION.

Three uppers.	415 00@46 00
Common.	13 00@24 00
Culls.	12 00@14 00

LONDON.

The *Timber Trades Journal* of Nov. 11, says: The arrivals in London this week do not furnish any formidable addition to the supply of timber, though thirty-eight vessels, of which twenty were steamers, brought forward quite as much as the market has at present any occasion for. About a third of the fleet is from Russia and Finland, several large ships from Quebec and the lower ports, and a cargo of pitch pine, which is rather a novelty of late. For the rest, deals and battens form the staple article; but there is also a cargo of flooring from Christiana. Spruce is hardly so firm as it was a short while since, and the Miramichi parcel, ex Coban, in very attractive sizes, did not realize by 5s. to 10s. a standard what similar goods fetched a month ago. The heavy arrivals from the lower ports with whitewood have caused a slight depression in the spruce market.

LIVERPOOL.

The *Timber Trades Journal* of Nov. 11, says: The import from Quebec may be considered as nearly over, comparatively few vessels remaining now to complete the year's work. Prices continue high, and are likely to do so for the remainder of the season; and from latest advices from Canada there appears every likelihood that stiff prices for next year's production will again be the rule, as the great cost of labor and the increased value of timber lands in Canada become more and more apparent every year. Sales of quantities of oak, pine, and other kinds of wood have been made recently by private treaty at extreme prices.

GLASGOW.

The *Timber Trades Journal* of Nov. 11, says: There has been a light import of wood goods to Clyde ports during the past week. This year's total arrivals from Quebec will, it is evident, be considerably under the average quantity. The falling off is in log timber, particularly yellow pine logs, the import of which is about 17,000 pieces under last year.

The stock of American spruce deals in Clyde ports at present is light, but the large supply of white deals at Grangemouth (imported from the Baltic) has a depressing effect on prices.

U. S. LUMBER INDUSTRIES.

The *Brooklyn Eagle* says:—In volume of lumber production the States stand in the following order: Michigan, Pennsylvania, Wisconsin, New York, Indiana, Ohio, Maine, Minnesota, Iowa, Missouri, Illinois, Georgia, California, Kentucky, New Hampshire, Tennessee.

There are 25,708 lumber manufacturing establishments in the country, employing a capital of \$181,186,122 and 141,661 male hands above the age of 16 years, 325 female hands below the age of 15 years, 5,967 children and youth. The value of the logs was \$139,836,869; the mill supplies were valued at \$6,318,516; the wages paid during the year amounted to \$31,845,974; the amount of lumber manufactured (board measurement) was 18,091,656,000 feet, producing 1,731,788,000 laths, 5,655,046,000 shingles, 1,248,226,000 staves, 146,523,900 set of headings, 34,076,000 feet of spool and bobbin stock; value of all other products, \$2,683,668; total value of all products, \$233,367,729.

New York State has 2,822 manufacturing establishments; capital invested, \$13,230,934; hands employed, 17,509; value of logs, \$3,623,874; value of mill supplies, \$490,389; wages paid during the year, \$2,162,972; feet of lumber manufactured, 1,184,220,000; number of laths, 79,399,000; number of shingles, 305,711,000; number of staves, 62,645,000; number of set headings, 22,136,000; feet of spool and bobbin stock, 1,003,000; value of all other products, \$235,263; total value of all products \$14,356,910. New Jersey ranks thirty-second in the producing area of the States.

For Winnipeg.

The *Thunder Bay Sentinel* says:—Coal is selling to-day in Winnipeg, the metropolis of the North West, at \$13.25 delivered. Only three weeks ago the same coal was fetching \$18.75 per ton, and this time last season, from \$19 to \$23.50. This great change is brought about by the opening of the Thunder Bay branch of the C. P. R., and the consequent reduction in freight rates thus giving one of the greatest boons to both rich and poor of that city that has yet been conferred upon them, and no doubt but that next season as good an effect will be produced in relation to lumber, as those engaged in supplying the lumber from the Georgian Bay markets are fully alive to the great advantages offered them, and are making arrangements for the shipment of large consignments at the opening of navigation. Mr. Geo. Graham is foremost on the field in the matter of supplying this lumber to the western market. He will have between two and three million feet here before the close of the season, all of which he will get over the line of the C. P. R. during the coming winter.

Leather Belting.

We are pleased to notice that Robin & Sadler, of Montreal, have again taken first prize for leather belting and leather copper riveted hose, at the Provincial Exhibition, Montreal. This is the third year in succession that they have carried off first prize against all comers. This firm has acquired an enviable reputation for making large double driving belts. They have supplied a 36 inch double belt for the Hudson's Bay Company; the same width of belt for the Winnipeg mill, of Messrs A. W. Ogilvie & Co., and the Stormont Cotton Mill Co., besides a great number of other large belts for various mills and public works. They are now making 32 inch and 26 inch double belts for the St. John Cotton Mill Co., and Wm. Parks & Son, St. John, N. B. The United States used to claim the chief merit for producing these large belts, but now this Canadian firm bids fair to outrival any United States production in their line of business.

Logging Railways.

The *Northwestern Lumberman* says:—Besides the eight miles of logging railway connecting the mill with the timber belonging to the Shell Lake Lumbering Company, in Wisconsin, the seven miles of road being built by R. M. Forsman and W. T. Price, to tap 70,000,000 feet of pine on the Eau Claire, and the road of N. C. Foster, of Fairchild, the Mississippi River Logging Company and the Chippewa

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.

Logging Company are building another. It will run from the Chippewa, near Amacoon lake, six miles above Big Bend, into the timber recently purchased from the Cornell University, which embraces about 600,000,000 feet. The haul will be seven miles. The two companies have united in this enterprise in preference to improving Potato creek, the Soft Maple branches and other small tributaries, for the road is the most certain means of getting the logs to the main river. The rail is rapidly superseding the old methods of logging.

NOVEL TIMBER RAFT.

An improved method and apparatus for coupling gangs of logs for timber rafts, so that they may be easily and effectively bound together in a raft, has been patented by Mr. Robert E. Terry, of Bay Minette, Ala. One end of each log is bored through near its end for the passage of an iron rod, that may be of any desired length. It is provided at its ends with nuts for holding the side logs upon the rod. The opposite ends of the outside logs are then bored for the passage of a similar rod. This rod when it is placed passes through the ends of the outside logs and over the ends of the inner logs, and when in this position one end of a small rod or wire is secured to the rod and then wrapped around each log and over the rod, and finally secured to the rod. A raft of logs furnished in this manner binds all the logs firmly together, obviating all danger of the loss of logs, and is not expensive, as the rods and wire are not subject to wear, and may be used over and over.—*Scientific American.*

Free Canals in New York.

The *Northwestern Lumberman* says:—The result of the late election in New York insures free canals in that state. This is of great significance to the lumber trade of the Saginaw district, and all points in the East, as well as to the trade of Canada. The abrogation of tolls on the Erie canal and its collateral water-ways will cheapen freights, and thereby reduce the price of pine lumber in Albany, New York, Boston, and all places east that depend on Michigan pine. Indirectly it may have a good effect on Chicago trade, for the Saginaw and eastern Michigan lumbermen were making ready for working some of their coarse lumber into the Chicago market, for the reason that Canadian lumber of the coarser grades has become a damaging competitor in the eastern markets, and the Saginaw men desire a western outlet for their inferior stock, which is now increasing in the annual percentage of their output.

The Prospects.

It seems almost certain that the demand for lumber will be as large, or larger, the coming year as it has been during the present one. But it will not be so large but that the supply could be made to exceed it. Here lies the principal danger in future operations. At the rate loggers are going into the woods this fall, and new mills are being erected, a possibility exists of

over production. Should the operators in logs, and manufacturers pass the bounds of prudence in the output of 1883, it is to be hoped that the trade at large will play with the bait till the season opens next spring before they take it in, hook and all, as they did last fall and winter.—*Northwestern Lumberman.*

ARRIVED AT QUEBEC.

The *Chronicle* gives the following list of rafts etc., arrived at Quebec:—
Nov 7—McAllister & Kelly lot, black walnut, Point-au-Pizeau.
J McRea & Co., oak, elm, &c, Point-au-Pizeau.
McArthur Bros, staves, New London Cove.
John McRae & Co, staves, Point-au-Pizeau.
Nov. 13—McArthur Bros, staves, New London Cove.

Buried Forests.

It is stated that the geological examinations of the Deltas of the Mississippi now show that for a distance of about 300 miles there are buried forests of large trees, one over the other, with interspaces of sand. Ten distinct forest growths of this description are said to have been observed, which is believed must have succeeded each other. Of these trees, known as the bald cypress, some have been found over 25 feet in diameter, and one contained 5,700 rings. In some instances, too, huge trees have grown over the stumps of others equally large. From these facts, geologists have assumed the antiquity of each forest at 10,000 years, or 190,000 for all.—*Northwestern Lumberman.*

AN ADMONITION.—To neglect a cough or cold is but to invite consumption, that destroyer of the human race. Hargyard's Pectoral Balsam will cure the cough and allay all irritation of the bronchial tubes and lungs, and effectually remedy all pulmonary complaints, such as Asthma, Bronchitis, Whooping Cough, etc.

A BIO INVESTMENT.—G. M. Everest, of Forest, states that Hargyard's Pectoral Balsam still holds its own amongst the many cough medicines in the market. He says that he has sold it for nearly sixteen years, and the sales are steadily increasing. One family has purchased over 50 bottles for various members and friends.

DAVEY & CLARK, Druggists, Renfrew, date of June 3rd, write:—"Burdock Blood Bitters, though comparatively a new preparation, has taken the lead in this locality as a blood purifier, our sales of it being equal to that of all other medicines used for the purpose during the last year."

PHYSICIANS and druggists have been in the habit of charging patients and customers more than many of them are able to pay. We are glad to inform our readers that Mack's Magnetic Medicine is sold at the low price of fifty cents a box, a quantity sufficient to last over two weeks. Read the advertisement in another column.

A SECRET.—The secret of beauty lies in pure blood and good health; without the one the other is impossible. Burdock Blood Bitters is the grand key that unlocks all the secretions, and opens the avenue to health by purifying and regulating all the organs to a proper action. It cures all Scrofulous Diseases, acts on the Blood, Liver, Kidneys, Skin and Bowels, and brings the bloom of health to the pallid cheek.

BOY INVENTORS.

The *Christian Advocate* justly considers that a boy's elders are guilty of a foolish act to snub him when he says or does something which they don't understand. A boy's personality is entitled to as much respect as a man's, as long as he behaves himself. In the following anecdotes wise and foolish elders are exhibited—one class respecting, and the other despising a boy.

Some of the most important inventions have been the work of boys. The invention of the valve motion to the steam engine was made by a mere boy.

Newcomen's engine was in a very incomplete condition, from the fact that there was no way to open or close the valves, except by means of levers operated by hand.

He set up a large engine at one of the mines, and a boy, Humphrey Potter, was hired to work those valve-levers; although this is not hard work, yet it required his constant attention.

As he was working the levers, he saw that parts of the engine moved in the right direction, and at the same time he had to open or close the valves.

He procured a strong cord, and made one end fast to the proper part of the engine, and the other end to the valve-lever; and the boy then had the satisfaction of seeing the engine move with perfect regularity of motion.

A short time after the foreman came around and saw the boy playing marbles at the door. Looking at the engine he saw the ingenuity of the boy, and also the advantage of so great an invention. The idea suggested by the boy's inventive genius was put in a practical form, and made the steam engine an automatic working machine.

The power loom is the invention of a farmer's boy who had never seen or heard of such a thing.

He whittled one out with his jack-knife, and after he had got it all done, he, with great enthusiasm, showed it to his father, who at once kicked it to pieces, saying that he would have no boy about him that would spend his time on such foolish things.

The boy was sent to a blacksmith to learn the trade, and his master took a lively interest in him. He made a loom of what was left of the one his father had broken up, and showed it to his master.

The blacksmith saw he had no common boy as an apprentice, and that the invention was a valuable one. He had a loom constructed under the supervision of the boy. It worked to their perfect satisfaction, and the blacksmith furnished the means to manufacture the looms, and the boy received half the profits.

In about a year the blacksmith wrote to the boy's father that he should bring with him a wealthy gentleman who was the inventor of the celebrated power loom.

You may be able to judge the astonishment at the old home when his son was presented to him as the inventor, who told him that the loom was the same as the model that he had kicked to pieces but a year ago.

Our Patent Office shows many ingenious and useful inventions made by minors and women, and the above list of important inventions made by boys might be largely increased did space permit.

HE BUCKED.

THE DANGER OF HIDING TEXAS PONIES—GREAT EXCITEMENT ON MONTGOMERY STREET—A HAPPY THOUGHT AND A HAPPY MAN.

(San Francisco Evening Post.)

It is a fact beyond dispute that the average Texas pony is uncertain. As a general thing a Texas charger can be relied on, sooner or later, to indulge in his little act, popularly known on the plains as "bucking." You can't cultivate the pony sufficiently to induce him to forget it. It is in his blood and he sticks to it by the power of heredity. He would probably go without his hay for a whole day sooner than throw away a good opportunity to "buck." It is a part of his life, and the chief article in his creed. In short, a Texas pony which won't buck is not a Texas pony at all. He is a non-descript and unworthy to be credited to the Lone Star State. Mr. George Ridgeway, residing on Jefferson street, Oakland, will probably endorse the above heartily. At any rate

the accident which befell him this morning would seem to be a sufficient guaranty for such inference in the minds of observers, for Mr. Ridgeway narrowly escaped death. As it is well known, this gentleman is a finished horseman, and is fond of riding spirited animals. This morning about 8 o'clock he rode up Montgomery street at a very rapid pace. When opposite F. Garcia & Co.'s restaurant, popularly known as "Frank's," Mr. Ridgeway suddenly checked his horse and attempted to wheel. But the pony grew obstinate and refused to obey the will of the rider. Mr. Ridgeway attempted to force the horse, but the perverse product of the pampas declined to be enforced, and then ensued a struggle for the mastery between horse and rider. True to his instincts the pony finally prepared a *coup d'état*, and won the victory. Jumping into the air, the devilish creature stiffened his legs, humped his back until he described an inverted U, came down on the street with all four feet at one time, plunged his head between his forelegs, and the act was complete. Mr. Ridgeway struck the ground about six feet in front of his horse. He was insensible. A large crowd of excited people was attracted to the spot. Kind hands tenderly lifted the unconscious sufferer and carried him into Frank's. A messenger was despatched for a physician. In the meantime restoratives were applied, and every means known to those present resorted to for his resuscitation. In a short time Mr. Ridgeway showed signs of returning consciousness, and moaned in great pain. Regaining the power of speech the hurt gentleman said: "For God's sake do something to relieve this horrible pain in my shoulder. It is killing me. Have you a bottle of St. Jacobs Oil in the house?"

"Just the thing!" said Mr. Garcia. "I have some of the oil conveniently at hand."

The sufferer was denuded of his clothing, and his right shoulder was found to be badly bruised. Quick hands applied the great remedy which is now creating such a sensation on the coast, and in an incredibly short time Mr. Ridgeway began to show signs of satisfaction. Soon he said that the pain was greatly relieved, and the application of nearly a whole bottle took away all the pain and reduced the swelling which had commenced when they began applying the Oil. Examination revealed the fact that Mr. Ridgeway had not sustained a fracture in any of his bones and he remarked subsequently as he was sipping a glass of "imperial punch," that St. Jacobs Oil had doubtless saved him great and protracted suffering. Calling at a neighboring drug store, Mr. Ridgeway secured several bottles of this wonderful healing substance and went home. The doctor arrived too late to see the patient.

The exhibition of such wonderful power by the St. Jacobs Oil set all tongues wagging, and many gentlemen present expressed astonishment at the amazing result of its application. Mr. Garcia explained that the Oil was reputed to be almost miraculous in its action in some cases, and the incident of this morning was simply a verification of what he personally knew of it, as well as what was stated of it by persons of his acquaintance. He thought so highly of its splendid curative properties in all cases of pains and hurts that he never failed to keep some of it on hand. Mr. Ridgeway would doubtless feel a little shaken up by his fall for a few days, but several more applications of the remedy would undoubtedly place his shoulder all right.

The reporter was greatly interested in what he had witnessed and resolved to learn more about the performance of the great remedy. Meeting M. Robert Young, a printer in the Mercantile Agency, and residing at No. 320 California street, the question of the healing power of St. Jacobs Oil was introduced. Mr. Young immediately and emphatically bore strong testimony in its favor. "Why, sir," said he, "I had been troubled a long time with stiffness of the neck. It was especially severe when I took cold. I had also suffered with rheumatic pains in my shoulders. It is, therefore, with feelings of gratitude that I say that the St. Jacobs Oil relieved me of every pain and ache. I most heartily recommend it as a superb remedy."

During the morning the reporter's duties called him to North Beach. While there he met Mr. Charles Schwartz, proprietor of the

North Beach Chowder House, No. 2,209 Powell street. The following conversation ensued:

"Mr. Schwarz, do you know anything about St. Jacobs Oil?"

"Well, I should say so! It is just the grandest remedy for rheumatism ever made!"

"Have you used it, sir?"

"Used it! Yes, it has been a standing remedy in my house for two years. There is nothing like it. We could not well get on without it. It cures my people of rheumatism, burns, bruises and every kind of ache or pain. Then my neighbors use it too. I always have several bottles in my house, and it frequently happens that persons call for it in sudden emergencies. Only a few days since a drayman got badly hurt, and I sent out a bottle of St. Jacobs Oil. They rubbed it on him and it took away the pain. The man was very grateful and said it was the best stuff in the world."

The reporter stopped in at the popular pharmacy of A. Adolph Boyken, the corner of Ninth and Mission streets, and asked the proprietor if he had much call for the St. Jacobs Oil. Mr. Boyken replied:

"The Great German Remedy, St. Jacobs Oil, has been having a big sale with me lately, and my customers are high in their praises of it as a conqueror of pain."

AN AGED BYCAMORE.

The Sears farm at Harlem, Ohio, is located on both sides of a creek, and in clearing the field of debris from the floods, recently, preparatory to sowing the fall wheat, a big sycamore log, 50 to 60 feet long and five feet in diameter, was sawed into several pieces. About 15 feet from the point where the tree had apparently broken off, from being girdled, the initials W. G. and E. S., were found carved in the wood with the date of 1718. The letters and figures were perfectly legible, and the wood has no evidence of decay. The tree is supposed to have stood along the banks of Second Creek, in Clinton county, having been washed down on the farm by the heavy floods. Allowing that the person doing the carving was honest in his intentions, and did not misrepresent the period in which he lived by substituting for it that of his forefather's, the matter is considerable of a puzzle to the natives of the region. Giving the date the benefit of the doubt, the tree is 164 years old, while the earliest settlement in the state of Pennsylvania was not made till 1783, and Clinton County was not settled till several years after. Unless somebody has lied, the carving evidently was the work of some white man, and one who knew how to make letters pretty well. The tree in its growth, after the carving, did not obliterate them, which shows that the carving was deep and intended for a purpose.


Height of Buildings.

In the Insurance Cyclopaedia, Mr. Walford mentions the Swedish law which came in force in 1875, and prohibited the erection of buildings in cities and towns of a height more than five feet above the width of the street on which they are built. A wise precaution, says the *American Exchange*, to secure proper ventilation and avert the spread of conflagrations, and which somewhat qualifies Capt. Shaw's rule that the safety or saving of the individual ignited building is indirectly in the ratio of the height to area or cubic content under equal combustible conditions otherwise. This is part of the question, whether we shall in the future build cities, or continue, as in the past, to build capricious individual structures.

Russian Floors.

The finest floors are said to be seen in Russia. For those of the highest grade tropical woods are exclusively employed. Fir and pine are never used, as, in consequence of their sticky character, they attract and retain dust and dirt, and therefore soon become blackened. Pitch pine, too, is liable to shrink, even after being well-seasoned. The mosaic wood floors in Russia, are often of extraordinary beauty. One in the Summer Palace is of small squares of ebony inlaid with mother-of-pearl. A considerable trade is done in Dantzic and Riga by exporting small blocks of oak for parquet floors. There is an active demand for these in France and Germany, but none in England.

The new mills at Portneuf en bas are being erected by the Dominion of Canada Freehold Estate and Timber Company, limited. They are pulp mills, three in number. A new saw mill will be erected next year. The machinery is from Messrs. Carrier, Laine & Co.



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

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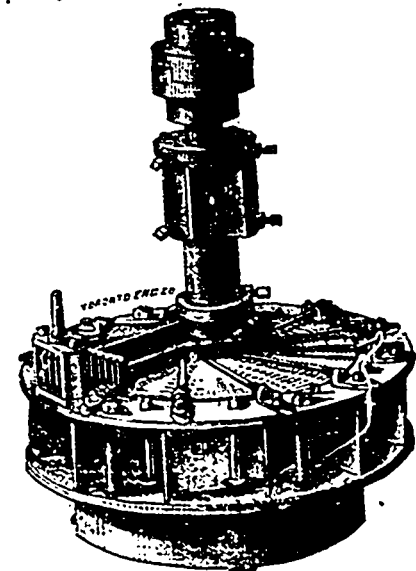
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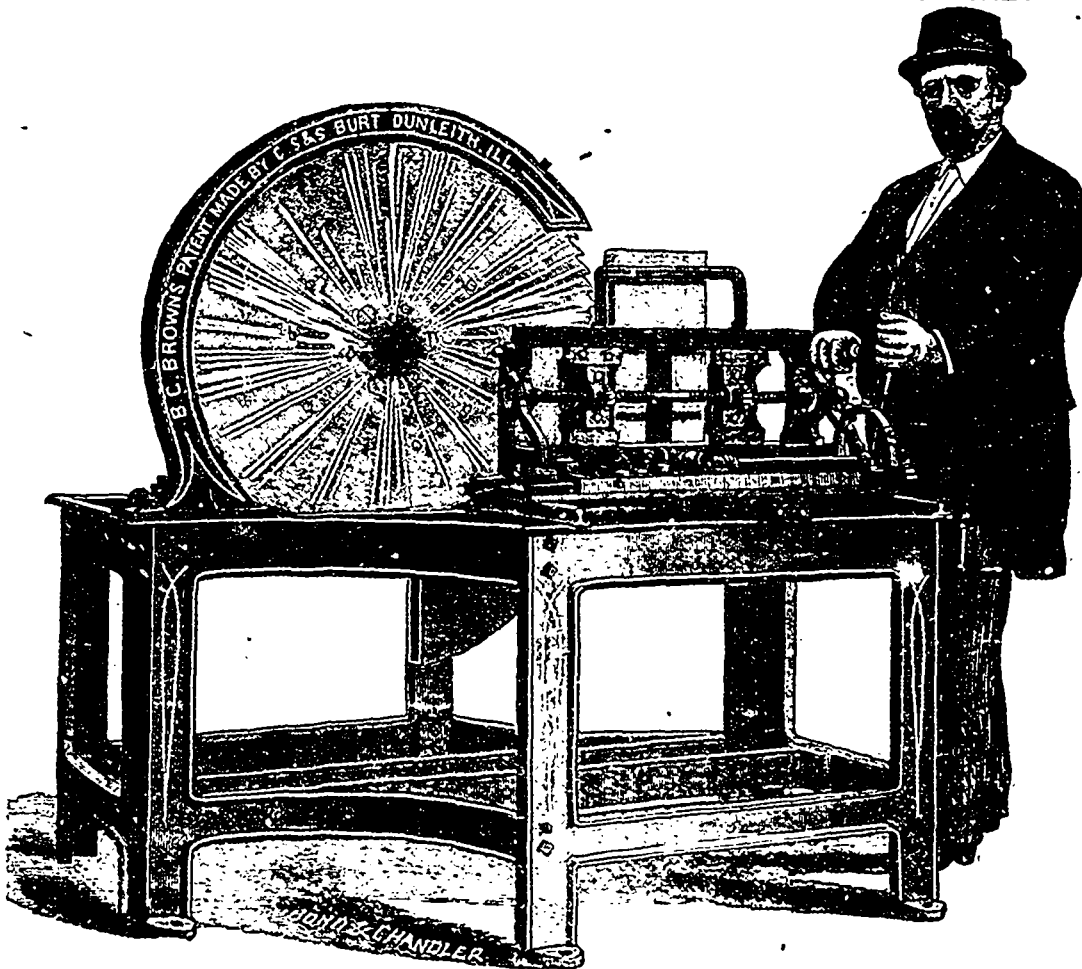
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