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VOL. 2.

PETERBOROUGH, ONT., SEPTEMBER 1, 1882.

NO. 17.

A GOOD many trades, concerning the workings of which very little is known, make use of wood as their principal raw material. Such a trade is the wholesale toy trade. A wholesale toy manufacturer has informed the *Timber Trades Journal* that at his works never less than fifty tons of wood are cut up, solely for the purpose of toymaking, every week of the year.

The *Timber Trades Journal* says.—The London import list is again swelling to something like large dimensions, and the arrival of sixty-four timber-laden vessels this week, of which thirty-seven were steamers, is likely to be regarded as quite enough for the time being, and many interested in the trade will think it would be none the worse for this market if some of them had gone elsewhere.

EVIDENTLY inserted-tooth saws are not very popular in England. Speaking of saw teeth, the *Timber Trades Journal*, of London, says:—Those most generally in use are known in this country as the peg, gullet, fisam, handsaw, mill-saw, and the M tooth. False-teeth are used to a considerable extent in America, but owing to the undue waste of timber, and the excessive power required to drive them, they are entirely unsuited to English practice.

The *Monetary Times* says there is a combination among tan-bark dealers in Maine and the Eastern Townships, if the *Boston Advertiser* is correct. That journal says that the Canadian bark dealers are masters of the situation. Some bark has just been sold as high as \$15 per cord, a great advance. In the spring, and even in June, it was at \$10 to \$10.50. A month ago the price was \$13 per cord. Holders of bark hold strong views as to the future. They claim that during the last sixteen months tanners have used 50,000 cords of bark more than there will be for them to consume in the next sixteen months.

The Trenton Council have granted permission to Gilmour & Co. to lay a railway track along Water and Ontario streets, which is now being done. The intention is to pile lumber on their property along the river's edge, toward the railway, with the ultimate object of making connection with the Grand Trunk. The company have nearly finished in their yard an inclined railway track by means of which they can run their motors on either the ground or elevated tracks. The mill proper is now the greatest hive of industry imaginable. Over 500 hands, large and small, are as busy as they can be handling the lumber, and making, of the refuse, lath, headings, pickets and shingles. These twin circular slab and prepare for the gangs on an average three logs a minute. The mill cuts one day in the 10 hours 432,000 feet, and has cut on an average 250,000 feet a day lately.

IMPORTANT INVENTION.

The future timber supply for the mills of the Saginaw River has been a problem which has long been a subject of serious consideration by our citizens generally, but more especially by those who have vast pecuniary interests involved. If the statistics are at all reliable, and the predictions of many lumbermen themselves are worthy of serious consideration, at the present rate of consumption it will not take much over a dozen years to virtually exhaust the white pine of the country tributary to the Saginaw river, and the query has naturally arisen. What is to become of the vast pecuniary interests involved in the gigantic timber manufacturing which line either side of the river from its mouth twenty miles inland. Will these vast manufactures be removed or will man's inventive genius, or the necessities of the situation develop some scheme whereby the raw material shall be forthcoming to satisfy the insatiable demand of these monster institutions? That there is plenty of timber available which it is possible to utilize in order to keep the vast machinery in motion until the present generation shall have passed off the stage of activity is undoubtedly true, but how shall it be safely and cheaply transported is the query, which has puzzled those most nearly interested. We have heretofore alluded to the Georgian Bay country as a source of log supply for the Saginaw river, providing the difficulties involved in the transportation problem could be overcome. If the co-operation of the weacher clerk could certainly and positively be secured, the problem would be solved at once, and the immense log rafts which, during the fine weather of midsummer, pass through the lakes, would continually line the route between the two points. But herein lies the difficulty. The storms which are liable to be encountered on the route with the present ordinary appliances for securing logs in the raft have been heretofore considered an insurmountable bar to the successful prosecution of the work involved. Several schemes have been devised for the purpose of overcoming the difficulty. Log boats have been built, a few of which are at present in use, a device has been put to practical test in loading these boats cheaply and expeditiously, and it has been claimed by those interested that these contrivances would solve the whole problem of log transportation. But utility and cheapness are not combined in the plan. The boats, in order to be secure, would have to be very strongly built, at a heavy outlay, and the handling would be no inconsiderable expense, and this brings us to the point at which we are aiming.

We have before us a design for a patent boom stick which, it is claimed, will be the open sesame out of all the difficulty embraced in log transportation. It is a very simple device, and like all other articles of great utility, when they are first discovered the wonder is that it has

never been thought of before. The inventors are Messrs. William Crozier, of Crozier slung machine fame, and Frank Duron, of this city. A patent has been applied for and the device sufficiently protected to admit of its public explanation. It consists of three sticks instead of one as at present used, and really constitutes a floating fence built around the raft. The centre stick or float is of white pine and two feet in diameter. Attached to it, with an interstice of about six inches space between them and the float log, are two other sticks about one foot in diameter. One of these, the under log, is of elm or other timber of about the same specific gravity as water, and is weighted suitably with iron-attached to the connecting-ropes to serve as a sinker. The other or upper log is of white pine peeled, and acts as a rider. The three logs are firmly butted together, with one inch bolts running from top to bottom, through the three logs, and when completed and the patent boom stick is in the water, it will stand about three feet below the water surface and two feet above, preserving this position of course by the laws of gravitation, and acting simply as a breakwater for the safety of logs confined within the limits of the raft.

It is well understood that a wave of water is simply a form, and the water itself does not move along with the form as it passes along the surface, as one would be inclined to suppose from a superficial observation. In forming a wave the water simply moves up and down and not longitudinally. Break this form and the water beyond the break, of course, is still. The old form of boom stick fails to accomplish this result sufficiently to secure the logs which they enclose, and consequently when the force of the wave strikes them the logs occasionally pass over or under them, as the case may be, according to the relative position they occupy on the rising or falling wave. The new boom stick, it is claimed by the inventors, Messrs. Goldie and Durell, will obviate this great difficulty and accomplish the desired result of securing comparatively, it is not absolute, safety to the raft. The device has been exhibited and explained to a large number of the practical mill men on the river, and they unanimously pronounce emphatically in its favor. If the sanguine anticipations of the inventor are fully realized, the new patent boom stick will be an important contrivance, as it will not only obviate the necessity of log boats or any other contrivance of that character for the safe transportation of logs, but actually solve the great problem which has so long been a source of anxiety to the Saginaw river mill men, by unfording to them the channel through which they are to secure the stock with which to supply their immense lumber manufacturing in the future, and its bearing on the future of Bay City and the other prosperous towns on the river, considered in connection with the continu-

ed cheap manufacture of salt, is incalculable, if, when it is put to the practical test, it should accomplish all that is claimed for it.—*Lumberman's Gazette*.

PORTABLE HOUSES.

In many of our colonies and in foreign countries as well as at home there appears to be a growing demand for portable houses composed mainly of wood and iron. In an article in a recent issue of the *Colonies and India*, we are told that portability, simplicity of construction, and ease of erection are the three great essentials, and these exist more in houses whose outer covering is composed of galvanized corrugated iron than in any others. It might be thought that the most economical way of erecting these houses would be to buy the iron and wood on the spot and hire skilled artisans to do the work. But practically this is found not to be so, owing to the difficulty of procuring skilled labour and the high price it commands when secured. The consequence is that anyone requiring any sort of portable building, or indeed any structure mainly composed of iron and wood, will effect a great economy both in money and convenience (and, in many cases, in time) by getting some manufacturer of these houses in the mother country to send out all the materials required ready for erection, which can then be readily done without the employment of any skilled labor at all. It is on account of their having given especial attention to these points that we would wish to draw our readers' attention to the iron houses manufactured and exported by Messrs. Edward Spencer & Co., of 87, Fenchurch-street, London.

We may here state that the firm above mentioned has been established more than 100 years. It was originally founded for the manufacture of Dr. Annett's hydrostatic beds, and from this has sprung a general business of wood workers, the special branches being a case making department, where large contracts are carried out for Her Majesty's government, a carpenters' department, where every description of woodwork from the plainest deal to the most elaborate hardwood is made, and a saw mill, chiefly employed on their own work, but where sawing, planing, &c., are also done for the trade. Some time since Messrs. E. Spencer & Co. determined to commence the manufacture of iron and wood buildings both for the home markets and for exportation, their works being conveniently situated on the Regent's Canal at Bow. The firm manufacture every description of portable dwellings, churches, warehouses, stores, &c., while they supply roofing, from a hen house to a railway station.—*Timber Trades Journal*.

The Trenton *Advertiser* says it is the intention of Mr. Rathbun to fit up the mill at Baker's Island next spring, on account of the construction of the Murray Canal.

FORESTRY CONGRESS.

The annual meeting of the American Forestry Association, which was held in Montreal on August 21st, 22nd, and 23rd, passed off very successfully. There was a large attendance of those interested in forestry both from the States and the Dominion, among the representative men of high standing being many of our leading lumbermen.

The following is a partial list of the delegates from a distance:—

B—Bureau, Senator, St. Remi; Butler, A. W., Brockville, Ind.; Beall, T. Lindsay; Broster, C., Three Rivers; Beadle, D. W., Barnes, Wis. S., Baskerville, P., St. Catharines; Bergeron, J. G. H., Beauharnois; Brigham, Dr., Phillipsburg; Bell, C. E., Representing Crown Lands Department, Quebec; Beaufort, E. L., Cape Vincent, N. Y.; Briselois, E. C., Minnedosa, Man.

C—Chandler, —, Chicago; Chaffers, Hon. W. H., St. Catharines; Chapais, J. C., Varannes; Crobasca, J. G., Sorel; Chapman, C., Toronto; Cowper, G. B., Toronto; Charlton, E. J., Quebec; Charleson, J. B., Quebec; Cuthbert, E. O., Berthier; Chester, F. W., Quebec; Chandler, G. H., St. John, N. B.

D—Dean, Harmon, Shelby Co., O.; Denton, J. M., London, Ont.; Dumpey, P. E., Trenton, Ont.; Dunn, L. H., Quebec; Dall, Caroline H., Washington, D. C.; Dwyer, G. E., Suttonville; Dwyer, E. A., Sutton; Dougall, J., Windsor; Dawe, T. H., Lachine; Desrivieres, F. G., Desrivieres; Dougall, John, N. Y.; Du Vernet, F. H., Toronto.

E—Emerson, N. P., Sutton Junction; Emery, Dr. J. G., Port Burwell; Emery, Vernon H., Hamilton.

F—Fennow, B. E., Statington, Pa.; Fyles, Rev. T. W., Cowansville; Field, J. G., Stanstead; Fulton, Rev. James, Lachine.

G—Guilbault, F. M. P., Joliette; Gillies, Jas., Carleton Place; Gillies, John, Braeside; Gibbs, Hon. T. N., Ottawa; Glead, C. S., Topeka, Kansas.

H—Hough, Professor F. B., Washington; Hicke, J. S., Roslyn; Hope, James, Toronto; Howard, J. W., Chambly; Hyatt, Jas., Stantonville, N. Y.

J—Joly, Hon. H. G., Quebec; Jones, W. J., Bowmanville; Jouette, S. N., New York.

K—Kinsey, Chas. E., Cincinnati, O.; Kay, Andrew, Granby, P. Q.; Keefer, T. C., Ottawa; Kerr, Thomas, Toronto; Kerr, Walter, Kemptville, Ont.; King, Rev. E. A. W., Lewis, P. Q.

L—Little, L. G., New York; Little, J., Cote St. Antoine; Logue, C., Maniwaukee; Lynch, Hon. W. W., Quebec.

M—Mohr, Prof. Chas., Mobile, Ala.; Martin, J. R., Cayuga; Malhot, Hon. H. G., Three Rivers; Manning, J. W., Manning, H. G., Reading, Mass.; Mills, W. H., Hamilton; Miles, H. R., L. L. D., Quebec; Moffatt, J. R. G., London, Eng.; Mills, W. B., Beaufort, N. B.; Martin, R., Martin, E., Martin, W. R., Hamilton; Mitchell, C. W., Ottawa; Massue, L. H., Varannes; Mills, Jas., M. A., President Agricultural College, Guelph; Morris D., St. Theres; McConville, P. W., Joliette.

N—Norman, J. B., Three Rivers; Nagle, R., Ottawa; Norris, John.

P—Panchaud, Dr. C. F., Varannes; Pardo, Avon, Toronto; Peffer, G. F., Powanoc, Wis.; Poraull, J. H., Varannes; Pell, L., Pembroke.

Q—Quinn, Stephen J., St. Hyacinthe.

R—Russell, A. J., Russell, J. Haig, Ottawa; Renaud, Eugene, Montagny; Ritchie, Wm., Three Rivers; Russell, A. G., Ottawa; Rodriguez, J., Jacksonville; Ross, W. G., St. Nicholas; Robitaille, L. A., Quebec; Rully, J., Sherbrooke.

S—Saunders, W., London; Studer, J. H., Columbus, O.; Stetson, John, Toronto; Stephen, John, Chicago.

T—Tache, E. E., Quebec; Thistle, W. N., Ottawa; Tracy, W. W., Detroit, Mich.

U—Ulrich, Alfred, Dresden, Saxony.

W—Warder, Dr. J. A., North Bend, O.; Wilson, H. W., Boston; Whiteside, E., Cambridge; Winnett, W. H., London, Ont.; Westover, D., Frehshsburg.

Y—Young, W. C., Ottawa.

The Congress assembled on Monday, August 21, at 2 o'clock, the number present exceeding a hundred.

Prof. Hough nominated, in the absence of the

President, the Hon. H. G. Joly, one of the Vice-Presidents, as President of the Congress. The nomination was enthusiastically ratified. Mr. Joly took the chair.

Prof. Hough was elected Secretary, and Charles Moore, Ala., as temporary Treasurer.

The President briefly explained the objects of the meeting, and announced the order of proceedings by sections.

Prof. Hough announced that the officers of the sections, as appointed at the Cincinnati meeting, would continue in office until the election of new officers. He moved the appointment of a committee consisting of Charles Moore, Bernard Fourneau and Wm. Saunders to take into consideration the relations between this Congress and the American Forestry Association, which had previously appointed a similar committee consisting of Messrs. E. Moody, New York; D. W. Beadle, Ont., and N. J. Colman, Missouri.

Dr. J. A. WARDER, first vice-president of the Association, said the American Association had come here prepared to co-operate with the Congress, and to submit to whatever the committee should recommend to-morrow. The Association had done a great deal of good during the last seven years, but they were even prepared to abandon their organization, if necessary, in the interests of American forestry.

Mr. C. E. BELL, Crown Timber Agent for the Province of Quebec, offered for the inspection of the Congress, a box containing forty specimens of Canadian woods. They were excellent specimens, some of them polished and and were greatly admired.

The Congress then adjourned and met immediately afterward in sections.

SECTION A.

This section assembled under the presidency of Prof. Franklin B. Hough of Washington, W. Little, of Montreal, being secretary.

FOREST FIRES.

The first paper by Mr. JOSEPH S. FAR, Wood's Hall, Mass., made a single brief suggestion—that new plantations should be made in blocks of 10, 20, 40 or even 100 acres, divided from each other by the least 100 (even 300) feet.

HARDWOOD DISTRIBUTION.

Prof. Mohr, of Mobile, Alabama, then read a very elaborate paper on "The Distribution of Hardwood Trees in the Gulf Region of the Southern States," giving very full details as to the various species.

PLANTING BY RAILWAYS.

The third paper read was by Dr. Franklin B. Hough, Chief of the Forestry Department of Agriculture, Washington, on "Tree Planting by Railroad Companies." He dwelt upon the immense consumption of timber by the railways, especially for ties, giving statistics as to the numbers required, their duration, the necessary ages of the trees, their preservation, etc. He urged the railway companies themselves to plant, showing that it took 25 acres of land on an average to supply a mile of road. He also dwelt upon the need of shelter belts, to check snow drifts, and related what the Northern Pacific and other companies were doing in this respect.

TREE PRUNING.

Mr. N. H. EGGLESTON, Williamstown, Mass., read a paper on the "Rational Method of Tree Pruning." After condemning the thoughtless lopping of trees, he said that by a rational method a forest will yield much more than when left to itself. This was known in Germany 250 years ago, and pruning was renewed in this century, and is now practised on the continent. De Cans' treatise has been translated into English at Harvard. The essential thing is to cut off a branch as close as possible to the trunk, no matter how large the wound. The descending sap that makes the new wood cannot do it if a stump projects from its line of descent. Rational methods were practised in Europe with great benefit.

THE RUSSIAN MULBERRY.

Mr. D. C. BURSON, of Topeka, Kansas, sent a short paper on the Russian Mulberry, which he said was coming into great use on the western prairies as a tree to bring returns to the present generation. It was a quick grower, with handsome and durable timber.

THE LARCH.

Mr. DAVID NICOL, of Cataragui, Ontario,

contributed a paper on the advantages of the *Larix Europæa*, or European larch, its quick growth, adaptability, propagation and culture. He discussed these very fully. The larch, he said, was adapted for lands otherwise valueless.

VILLAGE COPPICES.

The next paper read was "The Coppice for the Village and Town," by Mr. M. C. Road, of Hudson, Ohio. The article advocated the planting of coppices in odd spots in villages, towns or farms.

STREET TREES.

J. BEAUFORT HURLBERT, L.L.D., of Ottawa, in a paper on the subject of forest trees most suitable for streets, lawns and groves, which he gave as suggestive only, presented a list of some thirty trees that he considered most suitable for ornamental purposes. Of the seventy to seventy-five forest trees, and the thirty to forty shrubs, of Canadian growth, he would give the preference, for streets and lawns, to the maple, elm, basswood, beech, birch, oak, butternut, walnut and ash.

FOREST PRESERVATION.

Mr. JOHN DOUGALL, editor of the *New York Witness*, read a paper on "The Preservation of Forests from Wanton Destruction; and on Tree Planting." This was one of the most important contributions of the meeting. He described the evil effects that had followed from the too extensive denudation of the forests of this continent, and described how this evil was at length recognized. He advocated a system of forestry laws similar to those of France, Germany, Norway, and other countries in Europe. These should include a law to prevent the kindling of fires in the woods, a forest police, regulations for the gradual thinning out of the largest trees, giving the younger ones time to grow; a general system of tree planting by large corporations, etc. Every farm, he held, should have a belt of timber planted along its windward side 50 feet wide at least; swamps not covered with trees should be planted, he thought, with white and red cedar and tamarac; rocky ground also might be profitably utilized. Forest commissioners, he held, should be appointed just as fish commissioners are now. As to Canada, he urged the need of tree planting in the valley of the St. Lawrence about Montreal, and on the Northwestern prairies. The other Provinces were better supplied, and the system of selling timber limits to lumbermen was conservative of the forests, but there was need for greater precaution against fire and waste. A capable commissioner of woods and forests for the Dominion would therefore prove a very valuable functionary if he were not only an expert, but an enthusiast in Forestry, otherwise his salary would only be an additional and useless burden.

Mr. THISTLE, Pembroke, suggested that the forest rangers, whose work ceases in the spring, should hereafter be employed during the summer in an attempt to preserve the woods from fires.

Mr. E. B. COWPER, Crown Lands Department, Toronto, did not think the time had come when the planting of forests was a practicable question for Ontario and Quebec. Clearing must go on.

Mr. LITTLE said too much, perhaps, had been made of planting as compared with the preservation of forests, which was of infinitely more importance. He has seen splendid pine destroyed for the sake of clearing land, which would only grow fifteen bushels of corn to the acre. He scarcely thought that was right. It was like flying in the face of Providence.

Some further discussion took place on the necessity of preserving forests from fire, and a difference of opinion was shown as to whether there was more necessity of protecting our timber supply or of planting new forests.

The meeting adjourned about six o'clock.

FOREST FIRES.

Before adjourning, however, it was resolved that the report of the committee on forest fires be submitted to the general sessions.

OTHER PAPERS.

The following papers were also submitted to this section:—

The Destruction of Trees and Shrubs at the Ontario Experimental Farm. Prof. W. Brown, Guelph, Ont.

A few Thoughts on the Necessity for a Certain Portion of each Farm being left in Forest. J. Beaufort Hurlbert, L.L.D., Ottawa, Ont.

Forest Economy of Canada. Stewart Shayne, Ottawa, Ont.

Experimental Plantation of the Eucalyptus near Rome. Franklin B. Hough, Ph. D., Louisville, N. Y.

Conditions of Forest Growth. Bernhard E. Fernon, Shaweegan, Pa.

Lessons to be Learned from the Forests of Western Asia. Prof. M. S. Osborn, Oxford, O.

Borders in Forest Trees. Rev. T. W. Fyles, Cowansville, Que.

SECTION B.

This section was organized under the presidency of that enthusiastic forester, Dr. John A. Warder, North Bend, O., Chairman of the section. The Hon. Spring Rice was elected Secretary of the section.

TREES PLANTING FOR RAILWAYS.

As a well deserved compliment to the chairman, the first paper read was his contribution on "Tree Planting for Railroads." He pointed out that forest plantations being a long deferred investment, had not much attraction for a poor man, but might well be undertaken by companies, and especially by railways. He gave a detailed account of the success of some recent operations in prairie tree planting. He dwelt specially on the merits of the *atalpa speciosa* for ties and similar purposes.

THE CATALPA IN CANADA.

Mr. ROBERT BURNER, of Pictou, N.S., contributed some "remarks on the Canadian cultivation of the *atalpa speciosa*." As a test whether this very useful tree would grow north of parallel 42, in the spring of 1880, 100 plants from Illinois were set near Pictou (45½ north latitude), on a sharp, gravelly soil with a south exposure. They were protected from sun and frost, and this spring were distributed. All the reports of their progress are very good. There is every reason to hope that the complete naturalization of the *atalpa*, as suggested by Dr. Warder, of the Bend, Ohio, will be accomplished.

RAPID PLANTING.

Mr. ROBERT DOUGLAS'S (Waukegan, Ill.) paper on the three motion system of planting trees was read by the chairman. First the ground should be carefully prepared, say as for corn, it is then rolled and marked into spaces four feet apart, and the young plants, which are generally done up in parcel of fifty, are dibbled in. Three men at a rule are engaged, two plant and one carries the soil, or young trees. A hole is made, the plant inserted, the spade withdrawn, and the digger, planting one foot close to the young tree, forces it into position, and passes on to the next space. This method is considered better than running furrows with a plough. The plants used were usually yearlings. By this method as many as 1,500 trees could be planted in one day.

PRAIRIE PLANTATIONS.

Mr. H. W. PENNEL, of Russell, Kansas, sent a communication dwelling on the want of protection of those open regions from the winds which have a free sweep of hundreds of miles. The only way for breaking up those winds was by planting trees. In his own experience, at least half of his 6,000 black walnuts are in fruit this season; 3,500 ash-leaved maples transplanted this spring, are making fine growth in spite of the severe drought. The author seemed to find the ravages of insects the greatest drawback.

OTHER CONTRIBUTIONS.

The following papers were also contributed to this section:—

Oaks of Hardin County, Ohio. W. F. English, Mount Victory.

Timber Trees of the Black Hills. Robert Douglas, Waukegan, Ill.

The Coniferous Trees of the United States and Canada. Dr. George Vosey, Botanist of the Department of Agriculture, Washington, D. C.

Black Locust Growth. Dr. John A. Warder, North Bend, O.

Experiments in Tree Planting in Cape Cod. Joseph S. Fay, Wood's Hall, Mass.

The Ash. Arthur Bryant, Princetown, Ill.

Larchwre. A plantation on drifting sand. Dr. John A. Warder, North Bend, O.

Extensive planting by shelter belts. H. M. Thompson, Preston Lake, Dakota.

The classification of Oaks. Dr. John A. Warder, North Bend, O.

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A Western greeting. James A. Allan, Omaha, Neb.
 Forest tree plantation. B. F. Peck.
 Trees, tree planting, etc. J. A. Matthews, Little Metas.
 Timber culture a national necessity. D. C. Scofield, Clynn, Ill.
 Rural Improvements. B. G. Northrop, Clinton, Conn.

SECTION C.

This section was under the presidency of Prof B. Saunders, of London, Ont., the secretary being the Rev. T. W. Fyles, of Montreal.

SCIENTIFIC PRUNING.

Mr. JOHN S. HICKS, of Roslyn, N.S., communicated a paper on the "Commercial Value of Pruning." If the lower branch of young trees are not cut off, then loose or black knots will appear on the timber. Often a branch will rot and the rottenness goes to the heart of the tree. Knots can be kept sound by the branches being cut off while alive and quickly overgrown. One hickory tree that was not worth splitting for firewood might have been worth \$30 or \$50 if a few hours had been spent in pruning. Hickory, oak and chestnut will show the result of decayed branches. Clear pine has nearly doubled in value in the past ten years, and is still increasing, while common or knotty pine has only risen a few dollars. We will not long have the old growth to draw from, and when the trees have to be planted the neglect of pruning will be severely felt. The increase in value of a wood free from decaying branches will be more than the expense of pruning.

PIONEERS' APOLOGY.

The Hon. J. W. CALDWELL, of Cincinnati, Ohio, President of the Cincinnati Pioneer Association, wrote affirming that none had done more for the advance of the country than the two first generations of pioneers, and asking gentle treatment for them. The pioneers had to clear the ground, and though they lost the forest they gained sustenance for increasing millions of population. There was no market for their lumber, so it was burned; those millions have now made a market. As to what is now to be done—each person must plant two trees for one that he fells. The writer is the first American born and oldest survivor of the first Irish immigrant family that settled northwest of the Ohio River, and his father kept one-sixth part of his 300 acres as primeval forest. As to legislation—the road tax might be remitted to farmers who plant their road sides with trees, or a portion remitted according as he plants trees on his farm. He was sorry he could not be present to give his vote in favor of tree culture.

ARBORICULTURE.

The paper by Mr. W. ROBB, of Montreal, on "The True and False in Arboriculture," dealt, like several others, with the scientific system of forest tree pruning, European countries being cited as examples.

There followed a brief but interesting discussion on the subject.

FOREST DENUDATION.

Mr. G. L. MARLER, Montreal, read his paper entitled "Some Notes and Remarks on the Denudation of our Forests." He said that of the two great forest belts in Quebec, that to the south of the St. Lawrence had been almost denuded, and the northern would rapidly follow. The Government's gross returns from fr

last year was \$24,802,064, a fourth of the whole Dominion exports, and an increase of \$2,000,000 over 1871. In 1871 the amount of timber cut, as reported to the Government, was—white pine—24,236,821 feet; red pine, 1,954,371; oak, 3,302,043; tamarack, 5,695,963; birch, 1,939,357; elm, 1,832,624; walnut, 117,589; butternut, 102,981; hickory, 197,827; other kinds, 26,290,264; pine logs, 12,416,408; other logs, 9,314,537; mast, 121,685 feet; staves, 64,706 m.; lathwood, 25,706 cords; tan bark, 162,521 cords; firewood, 8,713,083. This makes an aggregate of 22,271,384 trees. Putting 50 trees to the acre, this means 445,428 acres, equal to one township, denuded in one year. The ten years since then will have denuded about 3,240 square miles, or 30 townships. This, without counting the home consumption, which is greater than the exports. The Quebec Chamber this year passed an act giving \$12 to anyone planting and keeping one acre in trees, and an act forbidding the clearing of land by fire between July 1 and September 1. Government, when getting revenues from forests down as income, has been killing the goose that lays the golden egg. Everyone can help in replacing the trees that are being cut down. From 100 square feet sown with ash you can plant out 100 acres of ash trees and have a return in three years. Emigrants to Manitoba should take boxes of tree seeds with them; a plantation would break the winds as well as supply his much needed timber.

THE EASTERN TOWNSHIPS.

The Rev. W. FYLES read a paper of "How the forest of the Eastern Townships was broken up." The hilly district between the Seigniors and Lake Memphremagog was one of vast forest, broken here and there by lakes and beaver meadows. The elms first disappeared, as the early settlers found them best for pot and pearl ash, the pines followed, only the best being used and the remainder being destroyed. White ash, brown ash, and basswood were utilized for fences. The sugar maples were often tapped so violently as to make them an easy prey to insects. Splendid bass was split into sap troughs. When the Waterloo Railway was opened the hemlocks began to be stripped of their bark, and left to rot. The winds, too, wrought havoc on the forests at the edges of the clearings, and fire has damaged them ten times more. Then there were the insects which attacked the trees, and of these he gave a lively account. He concluded by asking editors and teachers to advocate greater foresight in regard to our forests, and farmers and others to preserve the trees.

OTHER PAPERS.

The following contributions were also submitted to this section:—

- Living Fence Posts. Win. H. Ragan.
- Roadside Tree Planting. W. H. Hale, Sherbrooke, P.Q.
- Letter on Forestry. Dr. Ailly, Malvern, Ark.
- Fungi Injurious to Forest Trees. Byron D. Halstead.
- Forests in Connection with Water as Aids to Climatic Amelioration. T. T. Lyon, South Hare, Mich.
- The Forests of the United States, as shown by the census of 1880. N. H. Egleston, Williamstown, Mass.
- Forest Culture, Surveys, &c. Gen. W. Burns, U.S. Army.
- Economic Tree Planting, How and Where? B. Galt.

THE MONTREAL SAW WORKS

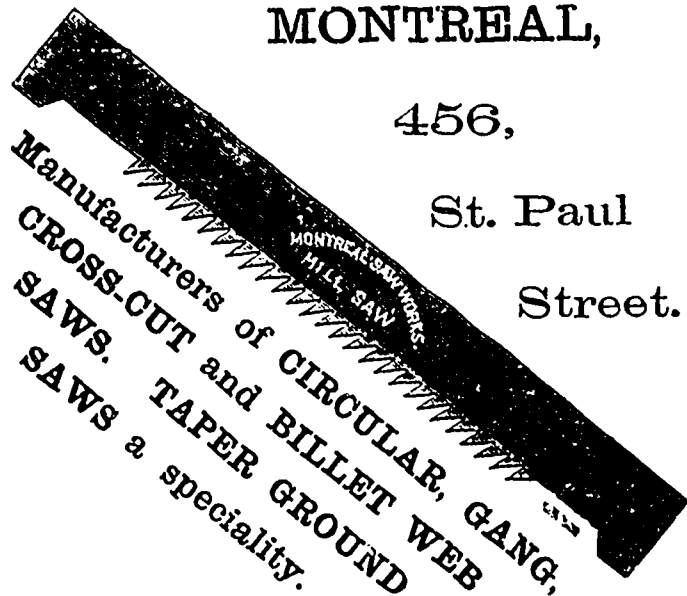
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MANAGER.

The mills of West York. J. Jenkins, Winona.

Individual effort in preserving and propagating trees. Dr. Reginald A. King, Compton, P. Q.

Profitable Forest Culture. E. E. Thorne, Springfield, O.

What to Plant for Forest Trees for Groves and Wind-breaks. Sam'l Foster, Mesquite, Ia. Canada's forests and her future as a steel producer. Edward Haycock, Ottawa.

Climatological range and geographical distribution of forests, and the climate favorable to them. E. Beaufort Hurlbert, J.L.D., Ottawa.

Plan of instruction in an American school of Forestry. Prof. Ad. Leuc, Cincinnati.

The relation of forests to Agriculture. A. G. Humphrey, M.D., Galesburg, Ill.

Forestry from a hygienic standpoint. Henry Howard, M.D., Montreal.

A PUBLIC MEETING.

In the evening of August 21st the Congress met as a body in the Queen's Hall, which was appropriately decorated. The public were admitted and were present in large numbers.

The MAYOR took the chair and welcomed the visitors. The Hon. Mr. Joly, Dr. Hough, and Mr. Beadle, of St. Catharines, Ont., gave able and interesting addresses on the subject of the meeting.

CONSOLIDATING THE SOCIETIES.

When the Congress was reassembled on Tuesday morning, the committee on the proposed amalgamation presented a report in favor of combining the American Forestry Association and the American Forestry Congress under the latter name, and the union was carried.

A FORESTRY JOURNAL.

The question of establishing a Forestry journal and other subjects of interest were then considered. The Chairman said it was proposed to publish a journal of forestry, and a strong publishing house in Cincinnati, Robert Clarke & Co., had offered to undertake it. But they required one hundred more members, and the agent of the house was present to take subscriptions. Another matter that should be discussed here was the necessity of Government devoting some of its revenue to the promotion of the interests of forestry.

A LUMBERMAN'S VIEWS.

Mr. J. K. WARD then read a paper to show the importance of preserving our forests. He stated that at present the production of lumber in Canada amounted to 2,000 million feet per annum, and 12 million saw logs eighteen inches by twelve. Nine-tenths of this lumber is exported, giving a return of some \$25,000,000. To produce the above quantity of lumber it requires a million acres of land to be gone over.

There can be no question as to the necessity of taking means to make the best use of our standing timber, and in utilizing it—first, in greater economy in manufacturing it, both in the mill and in the woods, discouraging as much as possible the making of square timber. Second, in government land the laws now applied to pine should extend to spruce and tamarac, that is, that nothing less than twelve inches at the stump should be cut down. Third, fires should be more carefully watched and prevented. In his thirty years' experience he had come to the conclusion that most of the forest fires were due to the fishermen and hunters. In view of this he would suggest that Government would employ as many men as necessary in each agency to look after and trace the origin of fires, and bring the offenders to justice. The quantity of timber land under license in the Province of Quebec to-day was 40,000 square miles. In the other provinces there was about the same extent. The quantity of timber land now in Canada was something like fifty million acres of land, and at the present rate of production this quantity of timber would last for about fifty years to come. It was beginning to be said now in Canada that cotton was king, but a glance at the present proportion of the lumber industry would show that lumber was king in Canada.

THE PRESIDENT SPEAKS.

The President, Dr. Loring, Commissioner of Agriculture for the United States, who had been unavoidably detained, but had now arrived and taken the chair, delivered an address which showed his mastery of the subject. He dwelt upon its great importance from many points of view, and spoke of the pressing necessity of putting a limit to the present destruction. He did not under-rate the magnitude of the work of preserving our forest, and spreading a knowledge of forestry.

FOREST FIRES.

DR. CHAS. MOHR read the report of the committee of the last meeting of the congress upon the injuries caused by forest fires, among which was mentioned the practice of circling trees in order to secure the gum that exudes from the wound, for purposes of commerce. Another cause of injury to forests is the partial burning over of timber lands by fires, which, though it may not kill the trees, almost entirely arrests their growth. Moreover, these frequent fires finally result in the total destruction of the organic matter in the soil. The pasturing of cattle in the woods, a custom very common in the country, is also a cause of gradual but sure destruction to the forests on account of the cattle browsing the leaves off the young and growing trees, so that when the old trees die out, there are no saplings to take their places.

(Continued on page 262.)

GO SLOW.

The Polosky, Mich., *Record* advises the farmers of English county, in that state, to "clear away the majestic maples" for the purpose of growing grass, because a stalk of timothy has been produced in that vicinity nearly six feet tall. Probably the advice will be followed, as farmers are rapidly settling on the hardwood lands of northern Michigan, and the splendid deciduous timber of that region will be rapidly slaughtered and reduced to ashes in the log heap. The same process has gone on during the progress of settlement ever since the first sound of an axe rang out over Massachusetts Bay. Before there was any considerable use for hardwoods in manufacture, the sacrifice of upland forests in the eastern states appeared to be necessary in order to obtain cultivatable areas. That necessity followed the Connecticut and Pennsylvania settlers to Ohio, and the New Yorkers to Southern Michigan. But in these more modern days, when the manufacture of agricultural implements, railroad cars, furniture, and the interior finishing of fine houses has made a market for hardwoods, it seems like a great waste of natural wealth to cut and burn up the "majestic maples" of northern Michigan for the only purpose of getting them out of the way, so that the land on which they grow can be cultivated. It seems as if there were a better way.

The *Lumberman* is not an agricultural journal, but it is bound to have its eyes open and take a common-sense view of things; and since a number of our largest operators have devoted their denuded lands to farming, this journal has a right to slip in a word now and then about the most profitable disposition of forest lands, after the timber is cut off, as well as while it is standing.

If there was excuse for the slaughter of forests in the earlier history of this country's settlement there is none now. If there is excuse for such sacrifice in the remote sections of the South or West at the present time, there is none for the settlers in northern Michigan, where the means of transportation by water and rail to the best hardwood markets of the country are abundant. The farmer who goes upon a piece of forest land in northern Michigan with the object of "hewing out a farm," as the poets say, is inclined to go a trifle too fast. He is anxious to clear up his farm so as to get on in the world. Large fields of grain and pastures are what he aims to have as soon as possible. For this reason he looks upon the standing trees, be they ever so straight and tall and fine, as in the way of his progress, and he attacks them, lays them low, with the only object of clearing them off the land, and with little or no thought of their value. If he would reflect that at the longest not more than five years will elapse before he can sell every tree for a good price, he would be inclined to drop the uplifted axe before it cleaves many a choice tree. It is true that the now occupier of forest land needs crops to support his family and feed his stock. But a five-acre patch, well cultivated, is better than 25 acres "logged over," as the good farmers say. The disposition of the new settler in the woods, or on the prairie, is to be shiftless with his farming and cover too much ground. A farmer who is trying to clear up forest land is especially inclined to slash down a great deal more than he can clear perfectly. If the now settlers on Michigan forest lands would cut off the timber no faster than they can clear the land well, they would make money by raising better crops, and by saving their timber. It would be well for them, when they begin upon their lands, to look about and see that their trees constitute a source of wealth that, if economized, will last them a number of years, and furnish a means of revenue in the winter time, when crops cannot be grown. Just at present many of them may be situated somewhat remote from dock or railway station, but in those times of rapid progress the day cannot be far distant before buyers will visit them at their homes and fairly beg for their timber. When the writer was a boy, maple wood in northern New York was worth but \$1.25 a cord; now there is but little maple wood to be sold at any price, and a maple log is worth too much for lumber to be cut into wood. The time will come in northern Michigan, much sooner than it came in New York, when there will be neither

maple nor beech to be cut into wood. Within ten years the man in Epimety, Choboygan, Charlevoix, Antrim, Grand Traverse or any other country of northern Michigan, who has slaughtered his hardwood for the sole purpose of clearing up his farm, will feel like sitting in the ashes of his log heaps with a gunney bag about him, mentally clubbing himself, like the repentant codgers of old, because he was such a fool as to send up in smoke so much forest wealth.

The *Lumberman* advises the farmers of that section to go slow on land clearing. Chop just enough each year so that the best value can be got out of the timber, clear the denuded land well, and wait a little for the waggon of progress. It is bound to come not long hence—in deed, it is in sight now, and the noise of it can be heard down the stumpy road. Wait a little longer, and the value of your standing trees will be more than you could raise on your farms in the way of crops in half a lifetime. And while you are waiting and clearing your lands slowly, you will learn to be good farmers by force of circumstances.—*Northwestern Lumberman*.

TREES AND CLIMATE.

In the *International Review* for August, there is an interesting article by Dr. Felix Oswald upon the effect of trees upon climate. He says that, owing to the destruction of its forests, Southern Europe is now what Africa was a thousand years ago, a region of rapidly growing deserts. The effect upon the climate has been to change the gentle warmth of summer to burning heat, and the clear, crisp, healthful cold of winter to warmth and moisture that generate deadly fevers. Coming to this continent, he says that in the Atlantic States there was such a redundancy of forests in the first place that their cutting away has not changed the climate for the worse; that it has made the summers a trifle drier and the winter considerably warmer. In the west Indies and some of the Gulf States the clearing of the primeval forests has produced extensive sand-barrens, with sand drifts and scorching summers.

Dr. Oswald brings together many instances of the gain effected by tree planting. For years the coast dwellers in France have redeemed by judicious tree culture, about 10,000 acres per year, and in other portions of Europe 8,000 acres have been rendered habitable. The writer tells the story of Mehemet Ali who, half a century ago, decided to plant with trees the sand plains on the coast of Egypt. It appears from a moderate estimate that 15,000,000 of fruit and forest trees were planted, eighty per cent. of which lived and thrived. As a result, the average yearly rainfall has increased from 0.60 to 14 inches, and the summer temperature of Suez decreased from an average of 92 Fahrenheit to 86 degrees. Dr. Oswald would have such a reclamation and revolution as this begun in both the old world and the new, wherever the axe has made need of it. He urges the State authorities in the West to encourage tree planting on the prairies, and says that drouths will be unknown when there is a forest in every county.

Dr. Oswald may be somewhat sanguine over his hobby, but undoubtedly tree planting would add vastly to the climatic advantages of regions like Manitoba and the Northwest.—*Winnipeg Times*.

CHIPPEWA RED LAKE RESERVATION.

Representative Washburn's bill, now pending in Congress, for the colonization of the Chippewa Indians, and the sale of their reservations in northwestern Minnesota, contemplates the following: The bill provides for the colonization of 10 reservations, and for removing the Indians to White Earth reservation. The lands from which it is designed to remove them are to be sold for their benefit. Mr. Washburn acknowledges that a strong opposition to the bill has developed in northwestern Minnesota and northeastern Dakota, and partly for that reason he has not felt so anxious as he otherwise would be for the passage of the bill at this session of congress. He says the people in the sections named have been clamouring ever since he has been in congress to have the lands of the Red Lake Reservation brought into market and sold, so that the population in that region might avail themselves of the timber there, but

the moment any practical steps were taken to affect that object, a strong opposition arose, especially at Grand Forks, and protests against it have been sent to Congress. As a safeguard against any possible grab on the part of capitalists, Mr. Washburn claims to have framed the bill so as to bar out such schemes. He says:—

The lands are to be sold in the smallest government subdivisions, to-wit, 40 acres, they having first been appraised by commissioners to be appointed by the Secretary of the Interior, 90 days' notice of sale being given, and in no case to be sold at less than \$1.25 an acre. I had also proposed to amend the bill providing that only one-tenth of this land should be sold in any one year.

The opposition to the Washburn bill, as has before been stated, arises from a fear that the lumbermen of Minneapolis, or other capitalists, would gobble the pine lands before the less powerful, because less wealthy, interests at Grand Forks, or other places in the new Northwest, could get possession of their share of them. The matter is now likely to affect the next congressional election in northwest Minnesota. Possibly the reason why Mr. Washburn is not anxious for the passage of his bill this session is because the capitalists who have designs on the pine lands have signified their willingness to let the scheme rest for a while, with the object of tinkering the northwestern opposition with solder made out of gold and silver. With that object in view they can well wait a year or two, for the land cannot be sold till the Indian occupants are disposed of. In the meantime the Chippewas would like to know who is going to pay for the timber that will be stolen from them.—*Northwestern Lumberman*.

LUMBERING IN THE SOUTH.

The *Southern Lumberman*, published at Nashville, says:—The lumber trade of the upper Cumberland has been heavier during the season just closed than ever before. We are informed by Maj. L. T. Armstrong, president of the consolidated line of steamers plying between this city and points above, that for the season, commencing on the first of November, to the present time, fully 12,000,000 feet of sawed lumber has been brought down by his boats, all of which has entered into the trade here, having been purchased by our dealers and placed in yards, or shipped to various points east and west. Besides this amount, it is estimated that 2,000,000 feet more have been brought down by flat-boats belonging to private parties and by raft. This lumber consisted of poplar, walnut and ash, with some oak, though of the latter the quantity was not very considerable. The shipments were made from Creelsboro, 335 miles by water from Nashville, and from a few points above, all the way down to the city, the largest proportion being from Selma, in Clay county, and other landings in that region. A large amount of this lumber was walnut of good quality, which brought high prices. Owing to an almost total failure of the crops last year in the upper counties, the people along the river cut and hauled more logs than has ever been done before, and this accounts for the greatly increased cut of the mills. The season has closed, and most of the mills have shut down for want of logs, and will continue idle until after the crops are laid by, when active operations will again begin, both with loggers and the mills, the product for next season will not be so great by several million feet as that of the present year, for the reason that accessible timber is beginning to be scarce, and the large crops likely to be made will require more of the time of farmers.

DEMAND FOR CHARCOAL.

Mr. J. A. Mathieu has recently contracted to put in eighty charcoal retorts at Birmingham, Ala., for the purpose of supplying a blast furnace at that place with coal. If the southern lumbermen would depart from the ways of the saw mill men in the north, and instead of erecting hells to burn the refuse of the mills, would put in retorts and reduce their slabs and the lumber too poor to ship to charcoal, it would be money in their pockets. The lack of shipping facilities would prevent many of them from doing this, but along the waterways where cheap

freight rates can be obtained it would be feasible and profitable. Ironmakers recognize the value of charcoal, and, if it can be obtained, will use no other, providing they are ambitious to turn out the best quality of iron. The demand for this kind of coal will constantly increase, and for years to come they will probably be ready to take all the charcoal that will be put on the market. In fact a surplus of charcoal has not been known. To say nothing about the call that is made for it in the manufacture of iron, large quantities are used in every city for various purposes. In a large city it always finds ready sales, and the lumber manufacturers who are located within easy reach of such cities ought to put in retorts and derive a handsome profit therefrom.—*Northwestern Lumberman*.

NO SCARCITY APPARENT.

The *Timber Trade Journal* says:—The alleged scarcity of timber abroad is slow to show itself in this country, where the only thing the trade is afraid of is getting too much of it. Large cargoes come rolling into London, one over the other, as it were, as fast as berths can be found for the ships, and the cry is, "still they come." Ninety-seven arrivals of timber-laden vessels were reported at the Custom House the week ending the 2nd of August, forty of which were steamers. To say the least of it there is no evidence in this lot that any description of wood is running short abroad. We occasionally get a remonstrance from some foreign house or their representative here, because we refrain from adopting their theories, and urging them more warmly on our readers; we must refer them for our excuse to the shipping lists. When vessels return without cargoes, or half empty, because timber to load them was not to be had, we shall be ready to join with the shippers in recommending importers to secure what they can for their trade on such terms as are fairly obtainable and on the first opportunity that presents itself.

A BIG SAW MILL.

A correspondent writes:—During the week I had an opportunity of visiting the beautiful new saw mill of the Georgian Bay Lumbering Co. at Waubesa. The mill has been running about four months, and is scarcely in good running order yet. It is a beautiful structure, built on the site of the old mill that was burnt last fall, at a cost of \$85,000. The main building is 126x70 ft. with an engine house attached of 20x30, a boiler house of 36x40, and a machine shop of 60x80. The buildings are fitted up with the very best and latest styles of machinery, and it employs 71 men. The mill is driven by two large twin engines of 250 horse power each, and is so constructed that in case one engine breaks down it can be disconnected, and the mill driven by the other. The cylinders are 23 in. bore by 26 in. stroke, and drive three gangs of saws (1 stock pony and a slabbing gang) two twin circular saws, one large circular saw and the lath mill. With these saws they turn out an average of 150,000 feet of lumber and 30,000 lath per day of 11 hours. They saw an average of 1,200 logs per day.

TIMBER LAND SALE.

The *Northwestern Lumberman* says the Commissioner of the Federal Land Office at Washington, on August 11, forwarded to the receiver and register, at Duluth, Minn., a proclamation announcing a public sale of lands at Duluth on December 4. The offering will comprise the vacant land in about 135 townships, situated north and west of Duluth, much of it covered with pine. Lists for the offering of isolated tracts of pine and agricultural lands, the sale to take place at St. Cloud, Minn., are being prepared, and it is expected that they will be ready some time in January, when the lands will be offered for sale.

ISAAC BEARINGER has returned to Duluth to remain, and it is said that he will engage extensively in lumber manufacturing. His plans contemplate the erection of a mill equal, if not superior to that of the Duluth Lumber Company. Two other concerns also intend to establish lumber operations at Duluth the coming fall, but their names are withheld by the local papers.

FOREST LAWS.

The *Lumberman's Gazette*, of Bay City, Mich., says:—Europe, in its forest laws, is far ahead of the United States, and is in less danger, at this moment, of becoming a desert than is the United States, unless something prompt and effective shall be done to arrest the wholesale destruction of timber which is still going on in all parts of the country. It has been truly said that growth is slow and restorations tedious, while destruction is rapid and injury instantaneous. Palestine and Syria, Egypt and Italy, France and Spain, have seen some of their most fertile lands turned into deserts by the destruction of the forests. There are parts of Asia Minor, of northern Africa, of Greece, and even of Alpine Europe, once covered with luxuriant woods, verdant pastures and fertile meadows, which have now become so completely desolate as to be rendered an unfit abode for man. We are really in danger here of such a result in some sections of the country, unless intelligent and immediate measures of remedy are adopted.

Doors Shrinking.

It has been asked of us how we are able to account for the fact that the panels of inside doors, made of thoroughly seasoned wood, so frequently shrink when the doors are hung inside newly-built houses. To this inquiry we would point out that wood is an exceedingly elastic material, expanding in an exact degree to the amount of moisture it absorbs, and shrinking again just in proportion as the moisture evaporates. Highly-dried wood absorbs moisture readily, and newly-built houses are usually full of damp air. It would appear to be further the fact that, with the evaporation of the absorbed moisture, some of the natural sap exudes, and thus even highly-dried wood becomes further shrunken. With well painted doors this shrinkage is not so apparent, and we should advise those who cannot wait for a house to be thoroughly dried, to have all the woodwork thickly coated before fixing it in its place in a new building.—*Timber Trades Journal.*

Two Thousand Years Old.

A mine has been found in the mountain near Salzburg, Austria, which gives indications of having been occupied and abandoned at least 2,000 years ago. It contains a large and confused mass of timbers, which were used for support, and a number of miners' implements. The timbers were notched and sharpened, but were subject to an inundation and left in confused heaps. The implements were mainly wooden shovels, axe handles, &c. The probabilities are that the ancient salt miners were overtaken by the flooding of the mine, as mummified bodies have been discovered also.

The *Pontiac Advance* says a raft of timber belonging to Mr. George Taggart has arrived there from the Quinzo Rapids, at the head of Temiscanungue Lake, being the first ever taken from that place. The "fifteen," so called from the number of them, are altogether some fifteen or twenty miles long, and located near the headwaters of the Ottawa River. It is said they are nearly two hundred miles from Mattawan village. Heretofore lumbermen have not cared to venture so high up, besides considering the rapids impracticable for the descent of timber. Mr. Taggart has, however, proved this not to be the case, and doubtless others will try next season.

The first raft that came through Victoria creek, upwards of 350 miles above Ottawa, Canada, is owned by R. & J. White, who have spent nearly \$30,000 in getting their timber through, many important improvements being made. The craft contained 130 cribs of first-class pine.

There is a company with 60 hands engaged in cutting walnut timber near Arkansas City, Ark. The most of the force is on Walnut Lake. The timber will be shipped to London.

The *Northwestern Lumberman* says that kindling wood factories are becoming numerous, a new one being heard from at a saw mill town every day.

WOODEN PLATTERS.

One of the curious industries of the country has its principal homes at New Bern, N.C. This is the manufacture of wooden platters, plates and trays. The timber used for this purpose is supplied by the neighboring swamp. A huge log is rounded by a circular plane and then put into a machine, which, with great accuracy and swiftness, cuts off thin strips of the wood. When these strips have been cut into square pieces and thoroughly dried they are made pliable by steam. In that condition they are moulded in the shapes desired. The factory is now making 100,000 plates a day, according to report, which is hard to believe.

The *Timber Trades Journal* says a misconception appears to exist in the minds of some of those who require to have their wood submitted to the process of croosoting. Wood that has simply been "pickled" in creosote is not in any way improved by the process. Croosoting properly conducted is another and separate matter altogether. It consists in the wood first being dried. It is then placed in a cylinder, and the air is extracted from the pores of the wood by means of an air pump. Creosote is then let in, and finally forcibly injected. By this process the wood becomes thoroughly impregnated with the creosote oil, and it is then, and only then, benefited.

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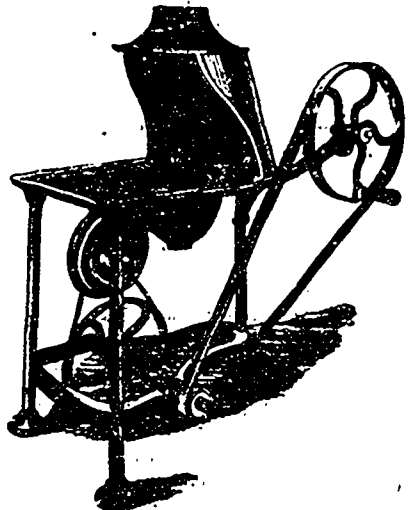
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Every accommodation for Commercial and LUMBERMEN
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Circular, Cross-Cut & Machine Saws
Gummed and Hammered on Short Notice.
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MANUFACTURERS OF
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—AND—
Patent Lace Leather.
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MACK'S MAGNETIC MEDICINE.
Brain and Nerve Food
For Old and Young, Male and Female. Positively cures Nervousness in all its stages, Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Supermatorrhoea, Seminal Weakness, and General Loss of Power. It repairs Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs in either Sex. With each order for TWELVE packages, accompanied with five dollars, we will send our Written Guarantee to refund the money if the treatment does not effect a cure. It is the Cheapest and Best Medicine in the Market. Full particulars in our pamphlet, which we desire to mail free to any address.
Mack's Magnetic Medicine is sold by Druggists at 50 cts. per box, 6 boxes for \$3.50, or will be mailed free of postage, on receipt of the money, by addressing MACK'S MAGNETIC MEDICINE CO., Windsor, Ont., Sold by all Druggists in Canada. 123

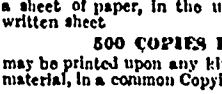
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The Simmons Hardware Co., of St. Louis, says of it: "Our Popyrograph, purchased some time since, gives entire satisfaction. Would not be without it for \$1,000 a year."
For specimens of work, price-list, etc., address with stamp.
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LOCAL AGENTS WANTED.

EARS FOR THE MILLION

Foo Choo's Balsam of Shark's Oil
Positively Restores the Hearing, and is the only Absolute Cure for Deafness known.

This Oil is abstracted from peculiar species of small White Shark, caught in the yellow sea, known as CARANARUBUS HUNDLITH. Etc. Chinese fishermen know it. Its virtues as a restorative of hearing were discovered by a Buddhist Priest about the year 1410. It is used here so numerous and many an accordingly miraculous, that the remedy was officially proclaimed over the entire Empire. Its use became so universal that for over 300 years no Deafness has existed among the Chinese People. Sent, charges prepaid, to any address at \$1.00 a bottle.

Hear What the Deaf say!

It has performed a miracle in my case. I have no unearthly noises in my head and near much better. I have been greatly benefited. My deafness helped a great deal—think another bottle will cure me.

"Its virtues are UNQUESTIONABLE and its CURATIVE CHARACTER ABSOLUTE, AS THE WRITER CAN PERSONALLY TESTIFY, BOTH FROM EXPERIENCE AND OBSERVATION. Write at once to HAYLOCK & JENNEY, 7 Dey Street, New York, enclosing \$1.00, and you will receive by return a remedy that will enable you to hear like anybody else, and whose curative effects will be permanent. You will never regret doing so."—Editor of Mercantile Review.
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THE CANADA LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY
TOKER & Co. PETERBOROUGH.

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

PETERBOROUGH, Ont. SEPT. 1, 1882.

THE FORESTRY CONGRESS.

THE recent meeting of the American Forestry Congress at Montreal cannot fail to have a beneficial effect. The growing attention paid to the subject of the preservation of the remaining forest, and the establishment of plantations on the prairies, is manifest by the numerous articles on the subject that have with increasing frequency appeared in the journals both of Canada and the United States. It is evident that the conviction is spreading that in the past there has been far from an economical use of our forest wealth, probably because it had been looked upon as practically inexhaustible, and that we must adopt a more prudent and provident course in the future.

The attendance at this Congress shows that it was not a meeting of mere enthusiasts riding a favorite hobby, for among them occur the names of politicians and officials of high standing, both in the Dominion and the States. Neither were they mere amateurs, whose enthusiasm might take an impracticable form, for among them were some of our leading lumbermen. Under such circumstances it might well be supposed that the proceedings would take a practical shape, and this, in truth, was the case. The papers read, the discussions held, and the steps taken, in many cases had a most practical bearing upon the subjects of economical forestry, and the great lumbering industry of this continent.

Among other useful results was the appointment of an influential committee to confer with the Governments of the Dominion and the United States and the various Provinces and States composing them. Among other valuable suggestions which will thus be authoritatively brought under the notice of the "powers that be," are the reservation as forests of timber lands unfit for settlement, the prohibition of burning at dangerous seasons, and the formation of forest districts with a competent staff. In some more or less modified form these suggestions, and others, may well be adopted so as to put an end to the present hap-hazard and wasteful system.

Much knowledge of these and kindred matters must have been disseminated by the late meeting, the contrast between our own uneconomical procedure with the more methodical systems of other countries have been forcibly

brought out, and the power of combination and organization to improve the situation has been brought into play.

This meeting of the Forestry Congress in our chief commercial city is a most important event, and we trust that it is only the inauguration of a new era in our dealings with our forest wealth.

MR. H. GREY, of Acton, has been in Ottawa trying to purchase butternut timber; he has secured 4,000 feet from Mr. G. Masson, and is negotiating with Messrs. McLaren & Co. for 30,000 feet.

THE trees planted by Dakota and Minnesota farmers in the Red River valley are doing well, and in a few years where there was a treeless waste there will be a landscape, variegated groves and belts of timber.

THE *Timber Trades Journal* says:—As regards the present outlook, there is Alexandria offering a field of enterprise to some speculative spirit among our large traders here, who might relieve the London market, perhaps to his own profit, by transferring some of the stocks here to the chief port of Egypt, in view of the almost unlimited demand for building stuff that will be required should that city fall into the possession of the United Kingdom. We only throw out the suggestion, and think that worse business might be done than shipping half a dozen large steam cargoes of deals and flooring to the Khedive's dominions, and though the time is hardly ripe for such a speculation it is worth bearing in mind by those who have plenty of stock on hand and a dull market for it here.

FORESTRY CONGRESS.

(Continued from page 259.)

The report was on motion received, and the President called for remarks on the general subject of forest fires.

MR. P. WHITE, M. P., Renfrew, Ont., said that there was a difference in the regulations respecting timber lands in the United States and Canada. In the United States timber lands became the exclusive property of the occupant, whilst in Canada the Government retained the ownership, and only leased the use for a term of years. He was convinced that in the Upper Ottawa district as much timber had been consumed by fire as had been cut down and carried away, to the value of at least twenty millions a year in each case. Not only were those fires caused by sportsmen, fishermen and hunters, but also by the settlers in clearing their lands, and even by the criminal carelessness of the employees of the lumbermen themselves. He would suggest that the Provincial Government should intervene. In Ontario settlers were not permitted to burn their brush from April to November, while in Quebec the restriction only applied to the months of July and August. This restriction should be extended at least to the months of June and September. The authorities should take the precaution of dividing the timber lands into convenient districts and place them under the supervision of agents, who should visit every settler and acquaint him with the penalties that the Government should hereafter visit upon the careless setting of fires. There was very little malicious setting of fires; it was, in nine cases out of ten, the result of carelessness. In the Ottawa section the lumbermen had endeavored to co-operate in preventing fires, but their experience showed that only Government authority would suffice. The lumbermen themselves would not object to a special tax to meet the expenses of close governmental supervision.

The Hon. GEORGE BRYSON heartily concurred in Mr. White's suggestions as to the means of preventing forest fires. The months of May, June, September and October were those during which nearly all the destructive fires took place on the Ottawa. Some twenty-five years ago he was examined before a committee of the House of Commons, when he stated that for every tree that was cut ten were destroyed by fire. That proportion did not continue now, but his opinion was that for a great many years ten times as much timber was destroyed by fire as was cut and used.

MR. THISTLE advocated Government supervision of the forests in order to prevent devastat-

ing fires. The immense regions beyond the Ottawa forming the water shed toward Hudson's Bay, were once covered with valuable forests which had been almost completely destroyed by fire.

MR. J. K. WARD said if the authorities took half the pains to prosecute malicious forest incendiaries that they did to punish a poor wretch who stole a dollar's worth of goods, it would have a beneficial deterrent effect.

Several other members spoke to a similar effect.

THE CHAIRMAN, there being no more speakers on the subject, thanked the Congress for the practical statements and suggestions which had been put forth. He especially wished to emphasize a suggestion that a man who would set fire to the woods but not to a barn, should be taught that one crime was as great as the other.

APPEAL TO THE GOVERNMENT.

HON. MR. JOLY moved that it is the duty of this Congress to draw earnestly the attention of the Government to the necessity of protecting effectually the public forests against fires. He proposed that a memorial should be sent to the Governments of the United States and Canada.

The motion was carried.

THE following gentlemen were elected a committee to memorialize the Governments of the United States and Canada on the necessity of protecting public forests:—Messrs. Peter White, M. P., J. K. Ward, Dr. Mohr, Hon. George Bryson, Prof. Hough, and P. E. Furnow.

The Congress then adjourned until two o'clock.

FURTHER PROCEEDINGS.

In the afternoon the Congress again met and some of the papers, the titles of which we have given under the respective sections, were read. Space will not permit us to give the details at present.

In the evening there was again a public meeting and addresses were delivered by the Hon. Mr. Loring, President of the Congress and Commissioner of Agriculture for the United States, Gen. Eaton, Commissioner of Education for the United States, and the Hon. Mr. Joly.

LEGISLATION SUGGESTED.

THE Hon. MR. BRYSON presented the report of the committee appointed to memorialize the Governments on forest fires recommending legislation as follows:—

1. The reservation of all pine and spruce lands unfit for settlement for lumbering purposes exclusively.
2. The prohibition of burning brush by settlers in the vicinity of fir trees during May, June, September and October.
3. The division of timbered country into districts and the appointment of forest police under a superintendent with magisterial powers, whose duty it shall be to detect and punish offenders and provide for the extinguishing of fires.

The cost of maintenance of this protective force, might partially be met by the imposition of a moderate tax on the parties owning or leasing timbered lands.

MR. J. K. WARD suggested that August be substituted for October in the prohibitory season. October was, he thought, in Canada, a wet month.

MR. BRYSON thought October a very bad month for fires, as the leaves were dry.

The report was adopted.

THE CONSTITUTION.

MR. FURNOW presented the report of the committee appointed to revise the constitution, which was adopted.

BRANCH ASSOCIATIONS.

MR. BEADLE offered a resolution that the secretary and officials furnish information and assistance for the organization of State and Provincial Forestry Associations.—Carried.

ELECTION OF OFFICERS.

THE following gentlemen were elected officers for the ensuing year:—

President, Hon. G. B. Loring; First Vice-President, Hon. H. G. Joly; Second Vice-President, Dr. John A. Warder, North Bend, Ohio; Recording Secretary, Dr. F. B. Hough, Chief of Forestry, Washington; Corresponding Secretary, Mr. William Little, Montreal; Treasurer, Joseph S. Fay, Wood's Hall, Mass.

NEXT MEETING.

It was suggested that the next meeting of the Congress should be at Minneapolis, but the place

and date were left for the Executive Committee to appoint.

MR. HIXON moved that the executive committee make arrangements for getting papers to be read at next annual meeting, on the planting, cultivation, preservation and management of the white pine. Such papers would be especially interesting if they met at Minneapolis, the centre of a white pine region. Carried.

VOICE OF THANKS.

THE following votes of thanks were passed by the Congress:—To the Governments of Ontario and Quebec for sending delegates; to the mayor and citizens generally of Montreal; to the press; to the various railway and steamboat companies who had provided facilities to the delegates; to Mr. James Little, for his achievements in aid of forestry; to Mr. Wm. Little, in the most special manner, for his earnest and energetic labors in securing the great success of the meeting; to Dr. Warder; to the Commissioner of Crown Lands of Quebec, for a collection of samples of the woods of Canada; to the Geological Survey, of Ottawa, for a set of reports; to the Quebec Government, for maps and books; to the citizens of Ottawa, for an invitation to that city; to A. A. A. S., for invitation to excursions; to the ladies of America for their work in aid of forestry; to the Montreal Amateur Athletic Society for the offer of their library, etc., for the use of the Congress delegates; and to the gentlemen who had contributed papers to the meeting.

CONGRESS ADJOURNED.

The Congress finally adjourned at 11 o'clock, until such time and place as the Executive Committee may appoint.

The Springs Did No Good.

THE following item is given for the consideration of those of our readers who are in search of just such an article as that referred to in the following statement of Mrs. Geo. A. Clarke, a well known lady of St. Catharines: "I cannot refrain," says Mrs. C., "from bearing testimony to the wonderful effects produced by the use of the very best remedy in the world, St. Jacobs Oil, for rheumatism. I had rheumatism and drowsey and did not walk a step for fifteen years. I tried nearly everything our most skillful physicians prescribed—Clinton Springs—St. Catherine Spring, etc., residing with a celebrated German doctor who pronounced my case incurable. Thinking everything of no use I was induced to try St. Jacobs Oil, and it has certainly done wonders for me. I heartily recommend it to any who may be suffering as I did. I have not had any use of my right arm for more than a year; now, however, I can raise it very nearly to my head."

J. R. BOND, Druggist, &c., Schomberg writes, "I have sold medicines for over twenty years, and no medicine could give better satisfaction than your Dr. Fowler's Extract of Wild Strawberry." This medicine is the old reliable cure for Cholera Morbus, Dysentery, and all Summer Complaints.

ROBERT A. WILSON, Dispensing Chemist, Brockville says under date of June 5th, 1882, "I have not the slightest hesitation in saying that Dr. Fowler's Extract of Wild Strawberry has given my customers more satisfaction than any medicine in my store for the cure of Summer Complaints, Diarrhoea, Dysentery, Pain in the Stomach, Sea Sickness, Piles, etc., you can use my name, etc."

A WORD OF CAUTION.—Beware of Opiates and powerful astringent drug in the treatment of Bowel Complaints, they may lull the pain and check Diarrhoea, etc., but are liable to produce inflammation. Dr. Fowler's Extract of Wild Strawberry is guaranteed safe and reliable, even for Infants, and is a specific for Cholera Morbus, Dysentery, Colic, Acute or Chronic Diarrhoea and Summer Complaints generally.

HOW IT WORKS.—The purifying and healing properties of Dr. Fowler's Extract of Wild Strawberry impart a healthy tone to the diseased mucous surfaces of the Stomach and Bowels. Its cooling, soothing properties counteract pain, its antiseptic properties correct canker and foul humor, and its tonic astringent nature corrects all exhaustive discharges.—Such as Dysentery, Diarrhoea, Cholera, Morbus, and Summer Complaints generally.

DYSPESIA is the most common of all diseases, and under ordinary drug treatment the most difficult to cure, it is a chronic weakness of the stomach with indigestion. The sensitive mucous membrane coating the stomach becomes irritated, and nearly all that enters the stomach continues to add fuel to the fire. Heartburn and Sour Eructations, Belching of Wind, Nausea, Headache, Variable Appetite, Costive Bowels, etc., are its prominent symptoms. Burdock Blood Bitters is a positive cure for this miserable disease.

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F. H. DRAKE.

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Extra Stretched and Patent Smooth Surface

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COTTON BELTING, for Flour Mills, &c., Superior Quality.

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Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wood Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. Quotations furnished for any part of Canada. 1121

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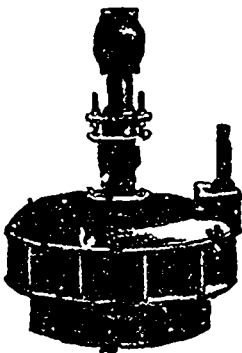
Mill Machinery,

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Send for Illustrated Catalogue.



The military operations in the East will seriously affect the boxwood trade, which draws its supplies mainly from Asia Minor, Persia, &c., and which are shipped in parcels from Constantinople, and other ports in the Turkish Empire. The price of boxwood blocks for engravings has again advanced, and as soon as hostilities commenced in Egypt one of the largest London dealers in this wood visited the various ports in the Mediterranean, and bought up every consignment to be found.

S. S. MUTTON & Co.,
Wholesale Lumber Dealers
TORONTO.

We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.
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A Syndicate of Limit Holders
Represented by the Undersigned, offers
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On the Upper Ottawa,

600 Square Miles Virgin Forest of Pine, comprising 13 Licenses, nearly all Front Limits, on the main stream of the River Ottawa itself, on reasonable terms

The Proprietors will sell either the whole, or, if preferred, a part interest to Capitalists who will furnish the requisite means to work this valuable Property on an extensive scale.

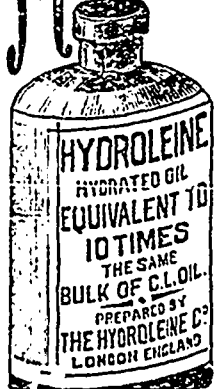
The extension of the Canadian Pacific Railway westward towards Manitoba, the establishment of steamboats on Lake Temiscamingue, Upper Ottawa, and other recent improvements, have made this property, formerly considered remote, very accessible to the operator for the United States as well as the European markets, both as regards getting in supplies and in driving the lumber to market. A raft of large board pine timber cut in the immediate vicinity of this property reached Quebec this year long before timber cut on limits only half the distance away, but forced to rely on the precarious height of water of creeks and subalpine streams, while the timber on this tract has the large volume of the "Grand" River itself to float it to market.

Full particulars will be promptly sent on application to

E. J. CHARLTON,
QUEBEC, P. O.

1716

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 liquid contents of 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.

WILLIAM CAMPBELL

(Late, CAMPBELL & FOWLER.)

MANUFACTURER OF

Edge Tools, Axles, Springs, &c. OF EVERY DESCRIPTION.

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



Has Facilities

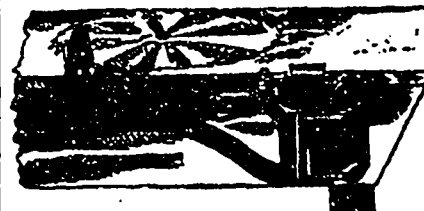
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DOING as GOOD WORK

—AND AS—

PROMPTLY
As any Engraver in Canada

ESTIMATES FURNISHED.



TO MILLMEN!

HODGSON'S Patent Saw Grinder

Is a new, efficient and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just where wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Walsport, Pennsylvania, and in Amherst, Nova Scotia.

Hodgson's Patent Monitor Shingle Machine

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

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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.

1117

A NEW INDUSTRY.

The latest industry which has seen the light of day at the capital is one for the erection of portable houses by the Logan Construction Company of Ottawa. To the untiring energy of Mr. G. J. O'Doherty the community is indebted for this new manufactory, which already gives employment to quite a number of artisans, although only in its swaddling bands. After considerable negotiations Mr. O'Doherty prevailed upon Mr. Logan, C. E. and M. E., a gentleman of great ability and well up in his profession, besides having a thorough understanding of constructing portable houses, to open up an industry of that character in the city. The company was formed, the work commenced, and in a very short time three local orders were fulfilled with great satisfaction to the purchasers. The only house worthy of mention among these is a neat little residence built for the Aylmer Toll Road Company, and which only came off the blocks a few days ago. In the meantime the Logan Construction Company are performing their operations on the bank of the Ottawa River, near the foot of Sussex street. There is as yet no "tall chimney" erected on the spot, but there is reason to believe that in the course of a very short time the firm will remove to new premises when such will be the case, the Skating Rink being leased for the purpose of prosecuting their operations on a much larger scale than is now the case.

What is commonly understood by portable houses is that a factory will supply sashes, doors, windows, lumber cut to size, and that some other place will supply the chimneys to some purchaser, who will ship the same to Manitoba or elsewhere, and in the course of time a dwelling will be constructed through the employment of skilled labour. The one mentioned for which Mr. Logan holds a patent, is entirely different. It is constructed in sectional parts on the spot, and when completed can be taken apart, removed and set up again without driving one nail or employing a single artisan indeed everything is so plain in this respect that "he who runs may read." The building is of a composite style of architecture. A look at the front of the structure shows an octagonal bay window, 8 feet wide and four feet deep, surmounted by a Tyrolean window 4 feet wide and 2 feet deep. The porch is a detached semi octagonal, six feet in width, having a neat roof of the same shape and supported by iron posts, which besides have fancy capitals, the whole being surrounded by an exceedingly handsome balustrade of a new design. Over the porch there is a Tyrolean window with a plain panel above the roof, the front part projecting about two feet six inches and has a fancy verge board. The building is 20 feet in front by 32 feet deep, and 16 feet corner posts, the roof being one third pitch. The side walls are divided into five sections each, and the roof into the same number, while the front and rear comprise six sections in all, and the floors four sections each. The simple putting together of these sections, which it may be said include outside and inside or the entire wall, enclose the house complete, when the arrangement of the interior may be proceeded with. Turning to the inside it was observed that there was a hall 16 feet long by 6 feet wide, on which was located the staircase for the purpose of ascending to the upper floor. Entrance from the hall is made by a door to the parlour, which is 20 feet by 13 feet 6 inches, the walls and ceiling of which are beautifully carved and panelled. Adjoining the parlour and connected with it is the diningroom, which is 15 ft. 6 inches by 9 feet 6 inches. From the rear end of the hall entrance is made to the kitchen, which joins the diningroom to the right.

Space will not permit to describe the second storey of the building. Suffice it to say that the staircase, which is of a roomy, neat and handsome construction, some excellent work being displayed upon the bannisters, can be removed *en bloc*, as is the case with all the partitions in the interior of the building. The bed rooms are well ventilated and neatly arranged. The roof is an improvement on the car roof style, and is so constructed as to be entirely impervious to rain. It was omitted to state that the side walls are tongued and grooved, and put together with white lead, and in every re-

spect of a lasting and durable character. It is really marvellous to look upon the simplicity of the manner in which all the parts can be put together after being finished. For warmth, comfort, convenience, and appearance the house will compare with any wooden structure in Ottawa, besides possessing many novelties which are not in the latter. It cannot be wondered at that the edifice is attracting considerable attention and receiving many visitors, who one and all admire the workmanship. When completed, as it will be next week, it will be forwarded to Hon. H. J. Clarke, ex-Attorney-General for Manitoba, who is the purchaser.

It may be also stated that the company intend having one placed on the grounds during the exhibition at Toronto. As a good omen of success it may be observed that the firm have received an order for ten houses, and three stables, of 100 feet each, from the Government, for the North-West Mounted Police at Qu'Appelle.—*Ottawa Citizen.*

RAILWAY LOGGING.

The Nowaygo, Mich., *Tribune* describes the manner logging is done on Ryerson, Hill & Co's Pickering lake and Muskegon river railroad, in that county, in the following manner:—On arriving at the lake we found a second train of 10 flat cars, loaded with logs and ready for the engine, which was at once attached, and leaving its empty train to be loaded, steamed off to the river, making the round trip in 30 minutes, on an average. As soon as the track was clear the empty cars were pushed alongside the skidway upon which the logs are placed, consisting of a platform of the requisite height, from one end of which extends an approach, up which the logs are hauled from the lake by means of an endless chain propelled by a stationary engine at the opposite end of the logway. Two men are stationed at the foot of the slide, who push the logs into proper position to be seized by the chain, and thus a continual supply is kept moving. As the logs reach the platform on top of the slide, they are rolled on to the logway and at once loaded on the waiting car by six loaders, three on a slide, who handle their cant-hooks with a skill and certainty wonderful to behold. As the logs reach the car the catcher places them in position, and as soon as the requisite number is loaded the car moves down the track and the binder dexterously encircles the load with his chain and fastens it securely, while an empty car takes the place of the one just loaded, and thus the process is repeated until the train of 10 cars is freighted with logs and ready for the returning engine which is to haul it to the railway on the river. The average time used in loading a car is one and one-half minutes. An average of 270,000 feet a day is put over this road, and 15,000,000 feet has been taken from the lake and put into the Muskegon this season in less than sixty days. The firm has 200,000,000 feet of pine tributary to Pickering lake.

RED OAK.

A Frankfort, Ky. correspondent makes an inquiry in another column about red oak, a wood regarding which there is much interest just now. This wood is now in much favor as a finishing wood, and is constantly and rapidly gaining in popularity. Compared with other finishing woods it has a large sale in this market. Red oak has been in stock at the yards for many years, but its value was never fully understood or appreciated until within the last two years, and since it began to be used more extensively it has gained ground constantly. Before it came into favor it was slow of sale, and only put to isolated uses. It was principally made into barrel staves and other rough stocks. When walnut began to get high, with cherry following suit, a search was made for a cheaper wood that would fill the bill, and a most valuable substitute was found in red oak. It has a rich and conspicuous grain, is easily worked, takes on a polish readily, and is much more economical than many of the woods deemed more fancy, which hardly present as good an interior effect. It is used generally in finishing and building, including balusters, newels, stop plank, sideboards, floor and ceiling strips, etc. It is also put in office desks and furnishing, and is generally regarded a very neat wood. It sells in this market at about the same price as

white oak, which is likewise a very pretty finishing wood when rift-sawed, though not much is used that way.

Red oak enters to some extent into manufacture also, but in this direction its province is limited. It is used some in the making of furniture, and takes the place of ash in certain wood-work in the manufacture of implements, and is made into poles and folios. It is sometimes used in waggon-bottoms, in the absence of white oak. The latter is generally preferred, because it is a tougher and better wood, as a general thing. Some of the red oak, however, is regarded fully as good for durability and strength. That which grows in northern or central Michigan is considered by many handlers as better than that from the forests of southern Michigan and in Indiana, because it is harder, firmer and stronger. The farther south the wood is found the softer it is, which is the tendency with most woods. Some dealers had stocks on their hands for which there was no sale, the piles being simply a dead weight on business, through 1879-80, but the demand for wood during last year and this season effectively cleaned out such supplies, and now good red oak is in no sense a drug. There have been several good sales of red oak at the yards of late, and when it cannot readily be had dry, it is bought half dry or green, and kiln dried. We have already mentioned the fact that nearly 200,000 feet of this goes into the new First National Bank, of this city, and we know of other important contracts.

The wood is most used in thicknesses of 14, 13, and 2-inch, 1-inch being less used. The lengths and widths run as in other lumber. Three and four-inch stuff enters into the sizes that are sawed, but are not so extensively employed. One and a half and two inch stuff, 12 inches wide and 12 feet long, is used for stop plank, and heavier pieces for novel posts, etc.

This lumber has also been pushed somewhat in the Milwaukee, Wis., market. It is certain that good red oak is bound to be in favor wherever it is properly introduced.—*Northwestern Lumberman.*

THE BRITISH TRADE.

In an article on the official trade statistics of the United Kingdom the *Timber Trades Journal* says:—Turning now to the report of the timber traffic, we shall find several facts worthy of observation. The value of the wood imported in 1877 was estimated, including mahogany, at more than £20,000,000, the greatest amount it had yet attained to. In 1879 the value was only £11,200,000, a falling off in two years of more than £9,000,000 sterling, in a single branch of trade, with its subdivisions. In 1880 it recovered itself to £17,000,000, and last year it exceeded £15,400,000. Though apparently a sober, well-conducted, steady-going business, none seems to be subject to wilder fits of speculation than the timber trade. Fortunes made in 1876 were lost in the excessive importation of 1877; and it is remarkable that in five years of expanding trade and population the demand for foreign timber has never since justified such an importation as overwhelmed the trade in that unlucky year.

In comparison with its enormous import, there is a very limited export done in foreign timber from this country, but occasionally small shipments are made, chiefly to the Cape and Australia. Nor does this trade seem to be appreciably progressive. In 1877 we exported, all told, 49,587 loads, which quantity was not reached in any subsequent year till 1881, when the export extended to 65,307 loads, about as much as not infrequently comes into London in a single week during the import season. Ships now load full cargoes direct from Scandinavian ports for the southern regions, and the export of wood in its unmanufactured state from our shores is not likely to expand. When a ship is laying on for Australia partly laden, and no further cargo immediately offering, a hundred standards or so of flooring or deals are sometimes taken at low freight, or perhaps bought for the occasion, to fill her up. The commodity is light and imperishable, forms an excellent platform for other goods, does not run into much money, and is pretty sure to make a tolerable return for the outlay when it reaches its port of destination. Thus, within a certain limit, foreign timber will always be incidentally ex-

ported; but probably it would be useless to try and make a regular business of it, when by full cargoes, for which there is now a trade, it can be done cheaper from the leading ports abroad.

In the enumeration of quantities and values of the timber imported last year some anomalies occur which are difficult to reconcile. For instance, Russian square timber stands high in the English market, and generally fetches the best price going for European fir, but the importation of 224,421 loads of it is only valued in the Blue Book at £420,145, or not £2 per load, while 220,370 loads of hewn fir from British North America are set down at £888,070, or more than £4 per load. But our public sales would tell a very different tale. In the valuation of wool sawn or split, planed and dressed, from the same countries, the value is more equal, as thus:—

	Loads.	Value.
Russia.....	82,864	£2,102,018
British North America.....	287,481	2,468,083
Sweden.....	908,475	2,325,633

By this account it appears that British North America sent us more of this class of wood last year, both in quantity and value, than any other country.

No duties being levied, these valuations are far from reliable, as they are generally taken by word of mouth from the importer or his entering clerk, who may speak at random or in ignorance, as he is not required to verify. The figures may be taken as an approximation to truth nevertheless, as the mistakes plus and minus in all likelihood pretty nearly balance each other.

PENCIL CEDAR.

The *Southern Lumberman* has received inquiries from English parties in regard to red cedar for pencil stocks, and samples cut to pattern have been forwarded to London. American red cedar is the staple wood used for making lead pencils in all parts of the world, and the Tennessee cedar has been found well suited for the purpose. During the war the demand for it was great, and the difficulty of procuring it so considerable that a lumber dealer of Memphis made a handsome sum by buying up posts, that had been set some time, and shipping them to the North, where they were sold to pencil manufacturers. During the last year the shipment of pencil cedar to Liverpool, Eng., was 15,812 cubic feet against 11,263 feet in the previous year, and the stock there at last accounts was entirely exhausted. The present wholesale price in Liverpool for pencil cedar logs is 97 cents to \$1.10 per cubic foot.

MR. J. McALLISTER, a lumber merchant of Windsor, while engaged in watering square timber on the banks of Lake Erie recently, was forced over the bank by a large piece falling. About fifty feet of timber following fell on him, and death resulted almost instantly.

TEABERRY whitens the teeth like chastened pearls. A five cent sample settles it.

"AND FOOLS who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zepesa. Clergymen write us earnestly as to its wonderful effects.

THE Rev. Charles E. Piper, formerly of Pittfield, N. H., but now of Wakefield, R. I., writes:—"I have used Baxter's Mandrake Bitters in my family for over two years, and as a result have not called a physician in the whole time. My wife had been an invalid for two years, but these bitters have cured her."

A SINGLE BOX of Mack's Magnetic Medicine will prove to any sufferer from nervous prostration or weakness of the generative organs, that it is the best and cheapest medicine ever sold for this class of diseases. Read the advertisement in another column and send at once for the great brain and nerve food.

C. BRITTON, Lindsay, Ont., writes:—"I have much pleasure in recommending Baxter's Mandrake Bitters in all cases of Jaundice, Biliousness, Sick Headache and Liver Complaint, for they have given universal satisfaction, and I have sold more of them the past season than any other one patent medicine."

A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zepesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the digestive apparatus and the liver to properly perform their duties in assimilating the food. Get a ten cent sample of Zepesa, the new remedy, of your druggist. A few doses will surprise you.

WOOD AND PAPER.

Speaking of the relative qualities of paper made from wood and straw, and that made from rags, &c., the *Western Paper Trade* makes the following remarks:—Modern improvements in the quality and cheapness in the price of paper appear to have been coincident with the discovery and practicable application of new fibrous substitutes for rags in paper making. As early as 1772 Christian Schaeffer published a book on papermaking, and Matthias Koops, in the beginning of this century, obtained a patent for extracting ink from waste paper, and reconverting it into white paper; also for making paper from straw, thistles, hemp, &c., and different kinds of wood and bark; and he actually printed a book in 1801 on paper made from wood and straw. Koops, in this book, stated that he had been able to produce the fine and strong paper upon which the book was printed, from straw and wood, without other mixture. Hofman, who had a copy of this remarkable book, wrote of it in 1873. The last fifteen pages are printed on paper made entirely from wood; it has the colour of light manilla, and is rather rough. The wood had evidently not been thoroughly reduced to pure fibre, but nevertheless the paper is strong and tough, and the printing shows well upon it.

"If the modern paper maker has not realized to the full extent the sanguine expectations of Matthias Koops, in the early years of this century, certainly straw and wood as papermaking materials have reached an importance that would surprise the original searcher in the field of valuable fibres. If we cannot yet make the purest white print paper out of wood, the progress in this direction has been great. A leading papermaker, who has been experimenting in this direction, recently said that he had arrived at a point where 90 per cent of wood to 10 per cent of other fibres could be utilized in print paper with good effect, and he confidently looked forward to the time when even the 10 per cent of rags or other material might be supplanted and the entire fabric made from wood."

LARGE CARGOES.

The Stockholm correspondent of the *Timber Trades Journal* says:—I have to chronicle the loading of the largest cargo of wood that ever left Sweden. This is the cargo per steamship *Prinz Georg*, of Hamburg, Captain D. zum Felde, for Avonmouth. The vessel, which is quite new, and on its first trip, loaded about 400 standards at Hudiksvall and completed at Skonvik, Sundsvall. This completing of the cargo represented, however, no less a quantity than 700 standards, total about 1,100 Petersburg standards. It is quite clear that, with the possibility of having the market crushed beneath the weight of such enormous quantities of goods as are now carried in single bottoms, importers in England will have to remodel their mode of business. They will have to keep as small stocks as possible, and do a hand-to-mouth trade, so as to avoid the risk of being caught when a glut of goods arrive. The small import places will either have to get their supplies from the large depots, or a class of steamers built carrying from 150 to 200 Petersburg standards.

English Oak Bark.

Messrs. Cleve W. Hooper & Sons report in their July circular that the price of oak bark remains stationary. The quality is good, but with the quiet operations of tanners the consumption is by no means as great as formerly, although the high price of Australian bark has caused some increase in certain yards.

The *Timber Trades Journal* says a largish parcel of Petersburg lathwood was bought for country consumption at £6 10s. a fathom, an apparently moderate reserve being placed on the stuff, which there was no difficulty in obtaining, for the bidding was offhand, and seemed to lie between a couple of provincial representatives who apparently had it all to themselves. The evident disposition of holders on this occasion was to sell if they could find buyers at anything like a reasonable figure, and with this in view the reserve values for most of the parcels were put at a limit that the room were able to advance upon and yet secure bargains.

Chips.

Logs to the amount of 20,000,000 feet have been rafted thus far this season at the Bangor, Me., boom.

The end of the Red River log drive arrived at Grand Forks, Dak., July 29. It is expected that the drive will reach Winnipeg about the last of August.

The rapid development of the South in lumber production is indicated by the fact that at one time there were on track at Louisville, Ky., 30 carloads of mill and wood working machinery that was in transit from the North.

There is a large foreign demand for the lumber of the Pacific coast. It goes to China, Japan, the South Sea Islands, Mexico, and the west coast of South America. These markets are continually making large demands.

The *Northwestern Lumberman* says the Fort Edward, N. Y., board of health wished to remove the accumulation of saw dust and drift wood in the river there, and to do so, poured kerosene oil on the mass and set it on fire. The stuff burned briskly for two days, presenting the novel spectacle of a river on fire.

The *Timber Trades Journal* says the Quebec trade, like a large portion of the Baltic, will soon be in the hands of steamers altogether, and we see signs of it in the fact that many of the regular liners are dropping out of it through old age or other causes, but which all lead up to the same result, viz., handing over the carrying trade to steam vessels.

Very few people, we presume, have any idea of the extent of the lumber business done in Emerson by our three lumber firms. One firm alone, that of Chalmers & Carney, have during the past month got in one hundred cars of lumber. They are now receiving a consignment of one million feet of lumber, which Mr. Chalmers recently purchased at points on Georgian Bay. It is brought up the lakes to Duluth and from there by rail.

Under the heading "Biting Into Our Sandwich," the *Northwestern Lumberman* says:—The Canadian lumber operators are fishing for some of the Australasian trade, an effort being made to capture Australian custom. Inducements held out have resulted in the appearance at Montreal of Mr. Sharpe, of Sharpe & Sons, Melbourne, Australia, where, it is stated, he has made arrangements for the direct shipping of lumber from Canada to Australia.

Col. Prosser, United States timber agent, lately seized the log drive on the Yakima river, W.T., put in by the Northern Pacific Railroad Company. He claims that a large portion of the timber has been cut from lands belonging to the Government, the intention of the company being to use it in constructing the road at points remote from the Cascade division, when it should be used on that part of the line in order to entitle the company to the timber.

An English paper says the favor which has during late years been accorded to pitch pine as an inside joinery wood is evidenced by the fact that our house painters are now imitating the grain. Pitch pine graining bids fair to become popular as was oak graining twenty years ago. The grain of pitch pine can be very effectively copied, and the painted work has a pleasing and very clean appearance. The common bedroom furniture, which was so generally painted in vile imitation of maple and satinwood, is now effectively painted in imitation of ash and of other, what may be termed, "modern woods."

The Glasgow correspondent of the *Timber Trades Journal* says the imports of American timber and deals to Clyde during the past week have been large, amounting to over 15,000 loads. The arrivals of Canadian deals alone at Glasgow sum up to 104,149 pieces, making a total since the season began of 292,000 pieces, which is considerably in excess of the quantity imported at corresponding date last year. The bulk of these have arrived per steamships. The prices obtained at Wednesday's sale held well up, the attendance being good, with a fair sprinkling of country buyers. Quebec spruces deals formed the bulk of what was disposed of, the offers made for the yellow pine deals not being considered sufficient by the brokers.

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Vegetable Balsamic
ELIXIR!

This valuable medicine is purely vegetable, the discovery of which was the result of many years' close study in order to discover the cause, the symptoms and the cure—viz.: Consumption, Coughs, Colds, Catarrh, Croup, Asthma, Influenza, Pleurisy, Hoarseness, Spitting Blood, Bronchitis, and every species of oppression of the Chest and Lungs. In all cases where this Elixir has been duly administered its efficacy has been invariably manifested, convincing the most incredulous that

CONSUMPTION
is not incurable, if properly attended to.—Consumption, at its commencement, is but a slight irritation of the membrane which covers the lungs; then an inflammation, when the cough is more observable, but rather dry; then becomes local fever and the pulmonary frequent, the cheeks flushed and chills more common. This Elixir curing the above complaints, operates so as to remove all morbid irritations and inflammation from the lungs to the surface, and finally expel them from the system. It facilitates expectoration,

IT HEALS THE ULCERATED SURFACES
and relieves the cough and makes the breathing easy. It supports the strength and at the same time reduces the fever. It is free from strong opiate or drastic ingredients, which are so trying a nature as to be in great danger of destroying the patient; whereas this medicine never dries or stops the cough, but by removing the cause, generally destroys the habit before the cough is entirely gone. Consequently, when the cough is cured the patient is well. Send address for pamphlet giving full directions for cure of pulmonary diseases. Price 25 Cts. and \$1 per bottle. Sold every where.

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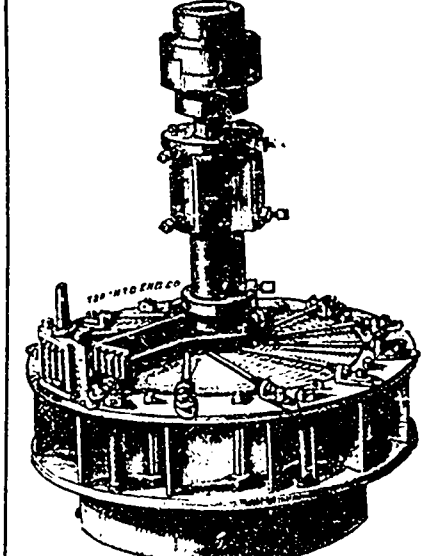
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Market Reports.

OTTAWA.

From our own Correspondent. SALE OF TIMBER LIMITS.

Aug. 10th.—This afternoon a large number of our most prominent lumbermen and limit-owners were present at the sale of limits at the Grand Union Hotel. Bidding was extremely lively. The limits formerly belonged to the late Eugene Martineau, at one time Mayor of this city. They were put under the hammer by the Banque Martineau. The "Jean de Terre" limits, comprising 50 square miles each, were sold for \$340 per square mile. The "Baldwin" limits, of 9 1/2 square miles, brought \$300 per square mile, and the Temescamingue limit of 50 square miles sold for \$380 per square mile. These limits are all situated in the Valley of the Ottawa. Mr. E. Beaudet was the purchaser, having bid on the three lots put up.

NEW SLIDE MASTER.

Mr. W. Macdonald, slide master at Arnprior, will succeed Mr. John Macdonald, the slide master at this place who was recently superannuated. Mr. Harvey, formerly slide master at Arnprior, has been reappointed to that position.

THE DRIVE.

Aug. 25th.—At no season during the past twenty years has the timber drive been so complete and advanced as at present. Thus far the drive on the Ottawa has been completed to within some thirty miles of Pembroke, at which point the water is reported by agents lately returned to the city to have risen as much as ten inches within the past few days, and is still on the increase. The prevalence of high water will have a not less beneficial effect upon the season's cut, which, as already stated, will greatly exceed that of preceding years.

SCARCITY OF MEN.

Manufacturing operations which have been up to the present carried on unremittingly by all the lumbering firms in this district, promise to receive a check shortly from an anticipated scarcity of men. The causes for this are twofold. During the past week several of the principal firms have been sending their advance gangs to the shanties which reduced their manufacturing staff in some cases to the lowest working quota. The high rate of wages offered by farmers throughout the country to harvest hands has induced numbers of men to quit work in the saw mills and accept that which affords a remuneration of \$2 per day, if only for a limited season. The effect of this will probably be that in a few weeks at the farthest some of the mills will be compelled to discontinue night-work.

SQUARE TIMBER.

The market for square timber, which has been this season unprecedentedly stagnant, is reviving. A few sales have lately been made. Messrs. Thistle, Carwell & Co. have disposed of two rafts. The price obtained is said to be 32 cents for white and 22 for red pine.

LIMIT SALE.

The valuable property known as the North Nation Mills and Cameron limits were sold by auction yesterday at the Russell here. There was a large attendance of prominent lumbermen and limit-owners, and the bidding was lively. The property was started on a first bid of \$20,000, and was knocked down to Mr. W. C. Edwards, of Rockland, for the sum of \$100,000. The limits comprised 130 square miles.

CHIEFS.

Mr. Oliver Latour, the enterprising lumberman, left on Tuesday last for Manitoba, where he goes on an exploring expedition. He will invest in limits in that province, if he sees his way clear.

Thirty car loads of lumber are being shipped daily from Messrs. McLachlin Bros.' mills at Arnprior. Water pipes have been laid throughout the lumber yards for protection against fire. The electric light will shortly illumine the whole premises.

TORONTO.

From our own Correspondent.

Aug. 22nd.—Both the local trade and shipments over the docks is still extremely quiet. Shipments and their receipts are able to take a

long holiday without danger of their business suffering in consequence, and yet in spite of this dull state of things, there is a tendency upwards in prices, more especially on bill lumber and lath, the latter being scarce, and, as predicted in one of my spring letters, there is no prospect of lath selling this season at anything like as low figures as that reached last year. I still am under the impression that business over the docks during the fall months will be brisk. Our American cousins have been blessed with a bountiful harvest, which will stimulate to increased activity in building, and ready purchasers will be found for all the lumber we have to dispose of, and if our mill men will only take the pains to manufacture, sort and pile as carefully as the American manufacturer, they will be able to compete in any of the American ports with American lumber. Our pine is as good as theirs, and there is no reason why we should not realize as good prices, in the Eastern markets at least.

QUOTATIONS, FROM YARDS.

Table with 2 columns: Item description and Price. Includes Mill cull boards, Shipping cull boards, Scantling and joist, up to 18 ft., 21 ft., 24 ft., 27 ft., 30 ft., 33 ft., 36 ft., 39 ft., 42 ft., 45 ft., 48 to 44 ft., Cutting up planks to dry, boards, Sound dressing stocks, Picks Am. Inspection, Three uppers, Ann. Inspection, 1 1/2-inch flooring, dressed, rough, undressed, Beaded Sheeting, dressed, Clapboarding, dressed, XXX sawn shingles, XX sawn shingles, Sawn lath.

MONTREAL.

From our own Correspondent.

Aug. 25th.—The Forestry Congress which has taken place this week in this city will doubtless be of immense benefit to lumbermen, timber limit owners, and farmers, and the hints and suggestions made, if carried out, as they should be, ought to help to a large extent the saving of timber, the planting of new forests, and prevent the wholesale destruction of trees by fire. The proceedings of the Congress will be read and studied with much interest, as they show the experience of some of the best Arboriculturists in Canada and the United States.

Business has been good here since the date of our last report, imports are pretty heavy and stocks are well kept up, which seems to us as fast as it comes in. Prices in the yards keep steady; they do not vary much in this market, such as they do at ports where it is sold for shipment. A large number of rafts of square timber have passed here lately for Quebec. Very few rafts of saw logs pass here now, most of it being sawn into boards before leaving Ottawa. We continue to quote yard prices as follows:

Table with 2 columns: Item description and Price. Includes Pine, 1st quality, Pine, 2nd, Pine, shipping culls, Pine, 4th quality deals, Pine, mill culls, Spruce, Hemlock, Ash, run of log culls out, Bass, Oak, Birch, Hard Maple, Lath, Shingles, 1st, Shingles, 2nd.

SHIPMENTS.

The shipments from this port since the date of our last report were as follows:—To Glasgow, 11,788 pcs; to Gloucester, 8,346 deal ends; to London, 36,618 pcs pine deals; to Buenos Ayres, 1,996,265 ft. lumber; to Montevideo, 490,107 ft. and to Rosario, 364,420 ft. The total shipments to South America from the opening of navigation to date was 8,161,012 ft. Six ships have cleared for the River Plate since the 10th inst. Freights are unchanged.

CORDWOOD.

The military authorities have given out their contract for cordwood delivered in the city and

on St. Helen's Island at about \$8.50 per cord. Not much wood coming in either by water or rail. Demand continues slack and prices steady as under, ex cars and on the wharf:—

Table with 2 columns: Item description and Price. Includes Long Maple, Short, Long Birch, Short, Long Beech, Short, Tamarack.

ST. JOHN, N. B.

From our own Correspondent.

Aug. 22nd.—There is no change in our lumber market worth mentioning since my last report, and prices remain about the same. Deals that are arriving are selling slowly at about \$9. Freight still remain firm at my last quotations, with an advance of about 2s. 6d. for moderate sized vessels for Irish ports. Owing to the recent scarcity of vessels and unremunerative prices of deals in England, shippers have been accumulating much larger stocks than usual here, and this will of course have a tendency to maintain freights during the remainder of the season, which will also keep the price of lumber from advancing to any considerable extent. Freights to-day may be quoted as firm at the following rates:—

Table with 2 columns: Destination and Rate. Includes Liverpool, Bristol Channel, Ireland.

SHIPPING.

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

Table with 2 columns: Vessel Name and Destination/Rate. Includes Calliope, Eurydice, Missouri, Arabia, Lottie Stewart, Unity, Maiden City, Lepreaux, Fidelia, Belle Star, Annie Burrill, Pernana, M'nicie Hunter, Cedar Croft, Harriet Campbell.

Table with 2 columns: Deal/Pine, Tons, Price. Includes Deals, Pine, Birch, M. S. ft. Tons.

Table with 2 columns: Ship, Tons, Price. Includes 18, 14,717, 15, 11,770.

ALBANY.

Quotations at the yards are as follows:—

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

CHICAGO.

The Northwestern Lumberman of August 26th says:—The cargo market has been somewhat better supplied during the past week, the favorable winds having enabled the fleets to arrive with more celerity. At the close of our last report a fleet commenced arriving, which placed

20 vessels at the dock for Friday's market, Saturday showing about the same number. Monday's fleet was 20 vessels, Tuesday's but about a dozen, Wednesday brought 20, and Thursday 23. Every day witnessed a pretty general clearing out of all the offerings, and at noon on Thursday there remained but three un-sold cargoes on the market. Prices were well sustained at the quotations following, exceptional cargoes bringing more or less, according to their excellence or lack of desirability:—

CARGO QUOTATIONS.

Table with 2 columns: Item description and Price. Includes Short dimension, green, Long dimension, Boards and strips, No. 2 stock, No. 1 stock, Clear, Lath.

Receipts and stock on hand of lumber and shingles, etc., for the week ending Aug. 21, as reported by the Lumberman's Exchange.

Table with 2 columns: Receipts, Lumber, Shingles. Includes 1882, 1881.

Table with 2 columns: Receipts, Lumber, Shingles. Includes 1882, 1881.

Table with 2 columns: Inc., Lumber, Shingles. Includes 1882.

Table with 2 columns: Stock on hand Aug. 1, 1882, 1881.

Table with 2 columns: Item description and Price. Includes Lumber, Shingles, Pickets, Cedar posts.

BOSTON.

The Journal of Commerce says:—There has been a very fair and steady inquiry for most kinds of western and eastern stock of soft woods, and values keep along on quiet a uniform basis. Southern pines continues rather dull, and prices are certainly no stronger. Hard woods meet with a fair inquiry and prices are well sustained.

CANADA PINE.

Table with 2 columns: Item description and Price. Includes Selects, Dressed, Sheling, Dressed, Lath, Dressed Shippers, Dressed Box, Sheathing, 1st quality, 2nd.

BUFFALO.

Table with 2 columns: Item description and Price. Includes We quote cargo lots, Uppers, Common, Culls.

OSWEGO, N.Y.

Trade has been very quiet during August and the attendance of buyers in the market limited to those who were seeking to make an assortment. Stocks on hand are good and well assorted. We make some corrections in quotations, as noted. Canal and lake rates have advanced a little.—\$1.50 to Albany and \$2.50 to New York. Receipts to date, 1882, 121,000,000; 1881, 90,000,000, excess, 31,000,000.

Table with 2 columns: Item description and Price. Includes Three uppers, Pickings, Pine, common, Culls, Mill run lots, Sillings, selected, 1 inch, 1 1/2 inch, Mill run, 1x10, 13 to 16 feet, selected, Strips, 1 and 1 1/2 inch mill run, 1x3 selected for clapboards, Shingles, XXX, 15 inch, pine, Lath, XXX, 15 inch, cedar.

TONAWANDA.

Table with 2 columns: Item description and Price. Includes Three uppers, Common, Culls.

BRISTOL.

The Timber Trades Journal, of August 12th, says:—Messrs. King Brothers' latest circular contains the following: We are pleased to be able to report a slightly better demand for timber. The importation, though heavy compared with last year, is not in excess of the average at this period. Quebec Goods.—Yellow pine timber—The new arrivals have been for railway purposes. Wansy board pine still elicits enquiries. Red pine—We are unable to report business. Oak remains dull of sale, Birch,

ash, and walnut are enquired for, and the first arrivals will command a ready sale. Pine deals are still arriving by steamer, but are not much in demand. New Brunswick goods.—Spruce deals have arrived somewhat freely; the stiffness of the freight market is now favorably influencing their value. Pine deals—No stocks. Birch—A parcel has arrived; large sized wood will sell well.

GLASGOW.

The *Timber Trades Journal*, of August 12th, says:—The imports of wood to Clyde during the past week have been light for this season of the year, they comprise two cargoes of Quebec timber, one of pitch pine, one of New Brunswick deals, and a cargo of Tabasco mahogany and cedar.

At the auction sale held here on the 9th inst. the demand was quiet, and of the Quebec deals catalogued the bulk were withdrawn, offers not being considered sufficient by the brokers. A portion was disposed of at the prices under-noted. In the selling of the small parcel American black walnut a strong demand was indicated for sound logs of large square.

On 9th inst., at Glasgow, Messrs. Edmiston & Mitchell, brokers:—

Quebec 1st pine deals—

10 & 11 ft. 12/24 x 3	2s. 8d. cub. ft.
13 " 10 x 3	2s. 4d. "
13 " 9 x 3	2s. 3d. "

Do. 1st pine planks—

6 to 14 ft. 6/13 x 2	2s. 1d. "
----------------------	-----------

Do. 1st pine deal ends—

7 & 8 ft. 9/15 x 3	2s. 2d. "
6 " 7/18 x 3	2s. "

Do. 3rd pine deals—

11 ft. 11 x 3	1s. 1d. "
10 " 11 x 3	1s. 1d. "

A parcel of 18 logs American black walnut, 21 in. av. sq. string measure, sold at 4s. 5d. to 6s. 9d. per cub. ft., averaging 5s. 3/4d.

TYNE.

The *Timber Trades Journal*, of Aug. 12th, says:—Another week has added a good list of arrivals of wood cargoes to the already large importations reported recently, and every branch of wood-exporting countries appear fairly represented. More Quebec cargoes are to hand, and several more are daily expected; some pitch pine ships are delivering in the river, and although prices of the latter are a little weaker, a fair even trade is being done all round in it. For wood goods generally the demand is feeble, with the exception of American yellow pine, &c., and for it prices remain firm. So far this season the appearance of cargoes leaves little or nothing to be desired; they are clean and bright, and the delivery having been under sunny skies, the wood will turn out well at a later date. Stocks of red deals are getting larger, a great proportion of later arrivals having been placed to stock in Tyne Dock.

LIVERPOOL.

The *Timber Trades Journal*, of August 12th, says:—During the past week there has been a steady amount of business done in small orders, and it is apparent that consumers are at last beginning to realize the fact that the market is going against them, and that from the present appearance of things it is likely to be the case for some considerable time to come. One of the best criterions of this is to be found in the fact that there have been no wholesale transactions in spruce deals, which are being held firmly by the shippers' agents for higher prices. There are very few vessels engaged or loading in St. John, N. B., and it seems probable that at any rate for some time the supply will be moderate.

Quebec pine deals are also advancing in sympathy with the increase of freights and insurance, and there does not seem any chance of decline. Taken all around, there is a most lively tone in the market, and orders coming in make a more animated feeling than has been experienced for some time past.

LONDON.

The *Timber Trades Journal*, of August 12th, says:—The increase noticeable in the deliveries last week has not been unexpected, though it can hardly be attributable to the public sales, these having been on a more than usually limited scale. There are undoubtedly signs of a fresh stir in the trade in the renewed activity in the deliveries at the docks, though the general reports are not corroborative of it. At present

time, however, we naturally look for some improvement, and undoubtedly the spell of fine weather we have been experiencing, though short, has given outdoor work a stimulus which may remotely affect prices in a favorable manner. In the f. o. b. trade several transactions have been concluded for late shipment at very fair prices all things considered—certainly better than the poor values obtained at the public sales would lead one to expect.

On the whole, so far as the season has gone, we think the shippers have very little to complain of. At the beginning of the year they managed to place the bulk of their open water and summer shipments at full prices, and the subsequent concessions on goods for autumn shipment were comparatively insignificant, and even for fall shipment the present quotations are hardly 10 per cent. below the first price list issued in January last. This, in the face of immense stocks, both here and abroad, speaks well for the vitality of trade, and is due to the rapidly widening area of the field of consumption, which seems every succeeding season to be extending more and more.

WEST HARTLEPOOL.

The *Timber Trades Journal*, of August 12th, says:—In the new docks several large ships are discharging yellow pine deals and timber from Quebec and other American ports. The *Bucephalus*, with this class of wood, for Messrs. Harrison & Singleton, is said to be the largest sailing vessel which has ever entered these docks, having on board upwards of 400 standards of deals as well as 200 loads of timber.

In the big timber department of the trade there are not so many deliveries from stocks in pond, but there has been a better general supply of timber lately, and orders from these are plentiful. Oak is particularly in good demand, and from 60 to 70 loads are going away daily; the first shipments of timber from Quebec are also just now discharging, including parcels of waney board and white pine, elm, ash, birch and oak, and as there is scarcely any American timber left on hand from last year's supply, a considerable proportion of these shipments is certain to be sent away direct ex ship.

A. L. UNDERWOOD

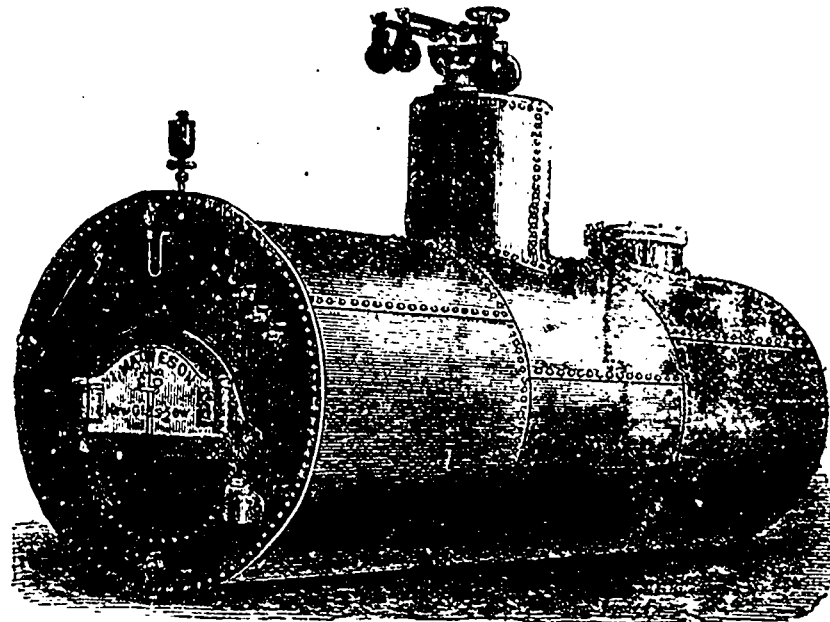
WHOLESALE DEALER IN
White Pine, Basswood & Hardwood,
82 King Street East,
TORONTO, ONT.

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Shingles, Doors, Sash, Flooring, &c.,
WANTED,
STATE QUANTITIES AND PRICE TO
SHORE & DAVIS,
Head Office, 514 Maine Street, Winnipeg, Man.

LEATHER BELTING.

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



PARKER & EVANS
SOLE PROPRIETORS OF THE
FAMOUS INTERNATIONAL
BOILER FLUID COMPOUND.

Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel. It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation. It is perfectly harmless to Iron, and emits a clear pure Steam. In ordering, mention the CANADA LUMBERMAN.

504 St. Paul Street, MONTREAL.



J. F. LAWTON
Alexandria Saw Works
SAINT JOHN, N.B.

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

EVERY SAW WARRANTED.

SAWS REPAIRED in the best manner and on Short Notice.

Send Address for Price List, Terms, &c.

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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.

MAKING A SEAPORT.

The scheme of making Manchester(Eng.) into a seaport is again on the tapis, and judging from the spirit of earnestness which is animating the advocates and promoters of the work, its accomplishment at a not far distant day seems highly probable. The project is the conversion of the River Irwell into a canal by widening and deepening it suitably throughout its course, some 38 miles, to the point at which it enters the Mersey, about 7 miles below Liverpool. The salt water tide would thus be admitted, and to the advantages of a waterway for ocean shipping would be superadded the obvious sanitary blessing of transforming what is now and has long been, a filthy disease-breeding stream, into a wholesome water stretch flushed twice in every twenty-four hours by the health-giving tide from the old ocean. The cost of the work is variously computed at from five to fifteen million sterling, and given at the largest sum mentioned, it is reasonably calculated that the enormous imports and exports through the canal would yield a good return upon the investment. The large outlay, moreover, that must be made for wharves or docks and warehouses, and the attendant increase in the value of property as a consequence, would form no inconsiderable addition to the city's wealth and importance. All this means, undoubtedly, a *protanto* diversion of traffic from Liverpool, the effects of which the latter city could not but seriously feel. The ultimate results, however, of such a work on all the various interests involved it is difficult to forecast, and impossible to estimate. We shall watch with interest the outcome of the agitation now rife in Manchester upon this matter.—*Monetary Times.*

RAFTS ARRIVED.

The Quebec Chronicle gives the following list of rafts, &c., arrived:—

Aug. 7—J. B. O. Latour, white pine, &c., Cap Rouge.

Perley & Pattee, white pine, &c., Hallow cove.

B. Caldwell & Son, white and red pine, St. Lawrence Docks.

Fraser & McCoshen, white and red pine, St. Lawrence Docks.

Collins Bay Co., pine, etc., Sharples' cove.

Smith & Mackey, white and red pine, Cap Rouge.

Aug. 8—J. McRae & Co. and A. McIntyre, staves, Indian Cove West.

Higham Lot, deals, South Quebec.

Aug. 9—John Roche, deals, Wolfe's cove.

Aug. 10—Levi Young, red pine, Windsor cove.

A Lumber Company as a Farmer.

The Kirby-Carpenter Company is getting things fixed so that when its stumpage on the Menominee is used up the members of the company will have something to fall back on for a living. At its nine-mile farm a barn is being erected 36 x 150, with 20-foot posts, with a basement eight feet in the clear. The company has several farms, all in crop, and the harvest of hay is immense. The company will cut 700 or 800 tons of hay, and the harvest of root crops would suffice for a large section of Ireland's population. We shouldn't wonder if Mr. Carpenter would before long write a book on what he "knows about farming," like the lamented "H. C. — Northwestern Lumberman."

Swedish Forests.

The board of the Swedish Crown forests has just published its review for 1880, of which the following will no doubt interest our readers. The whole surface of the kingdom of Sweden is estimated at 10,651 acres, of which 8,892 acres, or 88.47 per cent., are covered with forests. Of these 1,409 acres are Crown forests, and the rest, or 7,483 acres, are private property, the latter being 74.45 per cent. of the whole area of the kingdom.

Cement For Leather Belting.

Common glue and isinglass, equal parts, soaked for ten hours in just enough water to cover them; bring gradually to a boiling heat and add pure tannin until the whole becomes rosy or appears like the white of an egg. Buff off the surfaces to be joined, apply this cement warm and clamp firmly.

Russian Saw Mills.

At the National Exhibition at Moscow, says the *Ironmonger*, is a saw mill put up by the Wyborg Mechanical Works, on the system usually adopted in Finland. The framing is a combination of timber and iron, produced in a cheap way, and admirably suited to the wants of Russia. The mill is complete with engine, driving gear, hauling gear, and circular saw, the frame being capable of taking in a 30 in. log, and with the boiler and all connections, including strapping, is sold for about £600. The work is not of that finish seen in the frames of Ransomes or other English makers, but for all practical purposes it answers the end in view by cutting 60 trees per day of 28 ft. average length. The frame alone costs £240 with gearing.

A New Demand.

The *Timber Trades Journal* says there appear to be some rather heavy shipments of firewood ends just now coming forward, and it would be interesting to know to what purpose, other than the making of firewood chips, the wood is being applied. We expect this demand for ends has grown out of the enormously increased number of small wooden boxes that are in these times required for such multifarious purposes. Thousands and tens of thousands of small domestic articles are now-a-days packed and sold in wooden boxes, and thus a new and exceedingly important branch of commerce has been established, which directly affects the interests of the wood trade.

Sweden and Australia.

The Stockholm correspondent of the *Timber Trades Journal* says:—The cargoes shipped to Australia are also getting very large, but the loading of these large Australian cargoes is much pleasanter for the shipper than the monster steamers to England. The *Maraval*, of Glasgow, an iron ship, carrying probably nearly 700 standards, is now in course of loading at Nacka, near Sundsvall, by Mr. J. A. Enhorning, for Hobson's Bay. The Australian trade is now very important for Norrland, and is developing rapidly, as I have frequently of late had to point out.



THE GREAT
GERMAN REMEDY
FOR
RHEUMATISM,

Neuralgia, Sciatica, Lumbago,
Backache, Soreness of the Chest,
Gout, Quinsy, Sore Throat, Swell-
ings and Sprains, Burns and
Scalds, General Bodily
Pains,

Tooth, Ear and Headache, Frosted
Feet and Ears, and all other
Pains and Aches.

No Preparation on earth equals St. Jacobs Oil
as a safe, sure, simple and cheap External
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with pain can have cheap and positive proof of its
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Directions in Every Language.
SOLD BY ALL DRUGGISTS AND DEALERS
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ROBERT W. LOWE,
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81 SANDS BUILDING, PRINCE WILLIAM STREET.

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

1217

SAINT JOHN, NEW BRUNSWICK.

MACHINE OILS, ETC.

McCOLL BROS. & Co.

TORONTO,

MANUFACTURERS and WHOLESALE DEALERS IN

Machine and Illuminating Oils

Four (4) Medals and Three (3) Diplomas awarded to them
in 1881. by the Leading Exhibitions of the Dominion.

SEND FOR PRICES, ETC.

6124

SAW MILLS!

Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

C. NORSWORTHY & CO.,
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Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills
1711

AMERICAN HEAVY

Oak Tanned Leather Belting

Rubber Belting, | Rubber Packing,
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And Cotton Hose.

A Full and Complete Stock always on hand.
Write for Prices and Discounts.

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STEEL RING,

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

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Farmers and Mechanics.

Provide yourselves with a bottle of *PAIN-KILLER* at this season of the year, when summer complaints are so prevalent; it is a prompt, safe, and sure cure. It may save you days of sickness, and you will find it is more valuable than gold. Be sure you buy the genuine *PERRY DAVIS PAIN-KILLER*, and take no other mixture.

Cobourg, Ont., March 3, 1880.

I have been selling Perry Davis' Pain-Killer for the past six years, and have much pleasure in stating that its sale in that time has been larger than any other patent medicine that I have on my shelves, and in those years I have never heard a customer say aught but words of the highest praise in its favor. It is an article that seems to have combined in it all that goes to make a first-class family medicine, and as long as I have a house and store, Perry Davis Pain-Killer will be found in both.

Yours, &c.,

J. E. KENNEDY

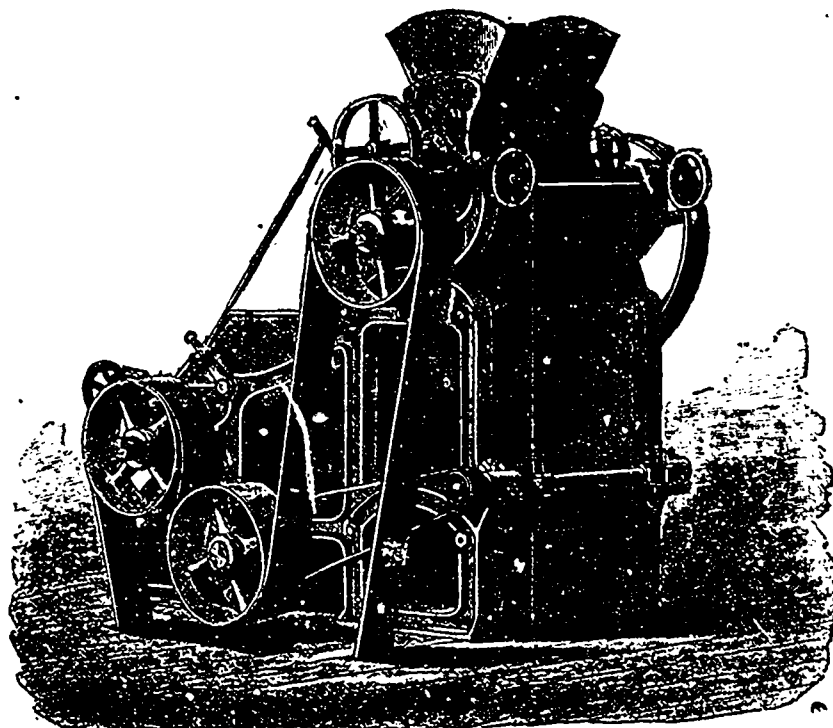
Beware of Counterfeits and Imitations.

Price 20c., 25c., and 50c. per bottle.

THE LATEST

For Flour Mills of 50 to 125 Barrels Capacity.

GRAY'S PATENT Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used; and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scalping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. Send for particulars.

MANUFACTURED EXCLUSIVELY BY

MILLER BROS. & MITCHELL,

Nos. 110, 112, 114 and 116 KING STREET

MONTREAL.

Sole Licensees for Dominion for Gray's Patent Noiseless Roller Mills and Gradual Reduction Machines.

1119

Mention this Paper.

FLOORING BOARDS.

The *Timber Trades Journal* says it is interesting to observe how the favor for flooring boards of 6 in. and 7 in. widths has of recent years strengthened. Some years ago the importations of narrow boards exceeded those of the two sizes referred to. At the time that a large amount of common property was being erected cheapness of first cost appeared to be the primary, and indeed only, consideration. An experience, however, of the narrow boards went to prove that, although by their use a good floor was obtained, economy was not effected, and so favor has been extended to 6 in. and 7 in. boards, and more particularly to the 7 in., which is now generally regarded as being the most economical of all widths.

Mr. J. R. Booth has purchased Messrs. Barnett & Mackie's Indian River timber limits for \$25,000. It is generally supposed that this is an excellent sale. Messrs. Barnett & Mackie will now lumber on the Mattawa and Nipissing districts.

One of the North German railways was some time back supplied with 1,000 young oaks, for an experiment in side planting for the sake of the bark.

Along the line of a proposed new road to touch at Katahdin Iron Works, Me., operators are preparing to get out ship timber, knees, hoops, and spool and pulp wood in large quantities, to be hauled by rail next winter.

The *Bellefleur Intelligencer* says the last piece of the timber drive passed through the harbor boom on Monday afternoon, Aug. 21. The number of pieces that came down the Moira this season is largely in excess of the number which came down last year and the year before. In 1880 the number was 232,434; in 1881, 326,033. We have obtained from the Harbor Master the number of pieces which were brought down by the Moira this season, as follows:— Logs, 434,305; ties, 42,176; cedars, 20,137; juts, 13,066; posts, 4,606; floats, 1,121; timbers, 63. Total, 515,375.

LIVERPOOL STOCKS.

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

	Stock, July 31st, 1881.	Stock, July 31st, 1882.	Consumption for the month of July, 1881.	Consumption for the month of July 1882.
Quebec Square Pine.....	582,000 ft.	158,000 ft.	135,000 ft.	51,000 ft.
" Waney Board.....	105,000 "	210,000 "	3,000 "	4,000 "
St. John Pine.....	30,000 "	41,000 "	10,000 "	4,000 "
Other Ports Pine.....	55,000 "	11,000 "	4,000 "	4,000 "
Red Pine.....	795,000 "	971,000 "	197,000 "	183,000 "
Pitch Pine, hewn.....	603,000 "	919,000 "	184,000 "	504,000 "
" Sawn (Logs and Planks).....	100,000 "	60,000 "	24,000 "	14,000 "
Dantzig, &c., Fir.....	7,000 "	1,000 "	2,000 "	—
Sweden and Norway Fir.....	414,000 "	290,000 "	23,000 "	19,000 "
Oak, Canadian and American.....	132,000 "	102,000 "	32,000 "	56,000 "
" Planks.....	83,000 "	60,000 "	7,000 "	5,000 "
" Baltic.....	44,000 "	88,000 "	4,000 "	0,000 "
Elm.....	143,000 "	52,000 "	27,000 "	31,000 "
Birch.....	43,000 "	51,000 "	17,000 "	32,000 "
East India Teak.....	50,000 "	88,000 "	21,000 "	21,000 "
Greenheart.....	16,428 stds.	9,682 stds.	8,681 stds.	12,006 stds.
N. B. & N. S. Spruce Deals.....	952 "	1,100 "	—	—
Quebec Deals.....	8,657 "	5,183 "	2,651 "	2,177 "
Baltic Red Deals, &c.....	3,912 "	2,329 "	816 "	42 "
Norway, &c., Boards.....	162 "	92 "	132 "	34 "
Boards Flooring.....	2,727 "	2,436 "	1,631 "	855 "

ADAM MCKAY,

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WE ALSO REFER TO

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EMERY WHEELS FOR SAW GUMMING!



Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 3,000 saw mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing \$3 to \$1 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so flock, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of \$500 to \$750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

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

Probably more wheels 12x $\frac{1}{2}$, 12x $\frac{3}{4}$ and 12x are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x $\frac{1}{2}$. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth case hardened, in which condition the saw will cut about 88 per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw *lightly* a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

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

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

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

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

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

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CANADIAN TRADE SPECIALLY SOLICITED.

MILL REFUSE TURNED INTO MONEY

BY THE USE OF

Brown's Patent Shaft and Shingle Mill,

for making Shingles, Barrel Heading, Box Stuff, &c. from spalls, board trimmings, slabs, and mill waste generally, turning material otherwise worthless into valuable products. I have made arrangements with the patentee to manufacture and sell for the Dominion, have made and sold a good number of these machines which are giving excellent satisfaction and can give the best of references.

Our Steam Feed for Circular Mills,

is now the Best Feed where Steam is the motive power. It is easily operated, is simple, rapid, and seems never likely to wear out. Sixteen 16 ft. boards, or eighteen 12 ft. boards, have been cut by it in one minute. It is the established feed for steam mills, I make a specialty of its manufacture; will guarantee satisfaction.

Our Patent Twin or Span Circular,

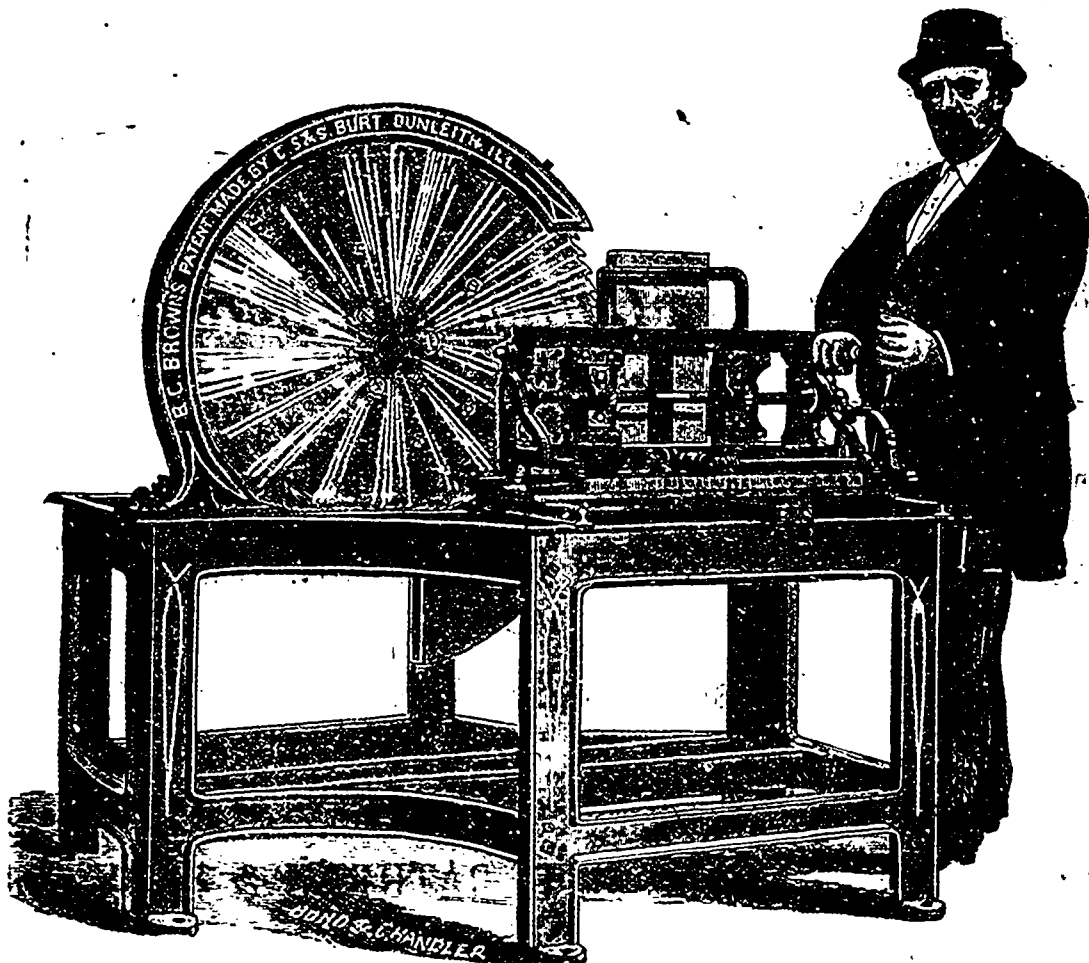
with Steam Feed for Steam Mills, and Rope or Rack Feed for Water Mills is fast coming into general estimation and is used in place of Gang Slabber in our best Canadian Mills. One of our Span Circulars which will slab up 25 inches in diameter down to 7 and 8 inch stocks, will do the work of three slabbers, with an immense reduction in first cost, running expenses and labour. Two of these machines can be seen at work in Messrs. Gilmour & Co's Mill, Tronton, and Georgian Bay Lumber Co's Mill, Wauwashteno and Port Severn. I am also introducing a new style of Mill Engine, neat, substantial and simple, with Corliss Frame and Balanced Valve, all carefully designed and honestly made.

Covel's Automatic Saw Sharpener,

is now well-known and highly appreciated, when placed at work in the mill it sings out its own praise, I keep it constantly on hand ready for immediate shipment.

Our Standard Circular & Gang Mills & Machinery,

are too well known to need any reference, any further than to say that I spare no pains or expense to have my work all first-class and give satisfaction, and as I make Heavy Saw Mill Machinery a specialty, any party wanting a First-class Mill will find it to their advantage to give me a call.



WILLIAM HAMILTON, Peterborough Foundry and Machine Works, PETERBOROUGH, Ont.