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NO. 5.

FOREST GROWTH ON COAL FORMATION OF NEW BRUNSWICK.

(BY EDWARD JACK.)

Dr. Bell in the report of the progress of the geological survey of Canada, for 1879-80, states that hemlock "is scarce near the eastern sea coast of New Brunswick." The doctor is mistaken; some of the very best hemlock lands in New Brunswick are to be found on the east side of the Intercolonial, between Newcastle station and the crossing at the Richibucto river, indeed, so far from being scarce, hemlock is very abundant on both sides of this railway in the location above mentioned.

The eastern sea coast of New Brunswick is largely embraced within the bounds of the carboniferous rocks, and where these occur in that Province hemlock is usually in great abundance; where it is usually of large size with rough and coarse bark, the wood being commonly shaly and of infirm quality; on the immediate sea coast hemlock is not usually found, the growth there being most always white birch and poplar or stunted spruce. The rocks of the coal formation underlie about a third part of New Brunswick; the country where they occur is usually level, ridges where they occur being generally low and of gradual elevation. On the heads of the streams there are extensive heaths and bogs, some of these have evidently been at one time lakes over which vegetation has spread and which has acquired such consistency as to allow persons to walk over it. This is especially noticeable on the head of the Canaan river where there are ponds of great depth in the middle of the bays, the water in these being bright and pure. The original growth upon the coal formation consisted largely of spruce, pine, hemlock and Tamarac, hardwoods being less abundant and of inferior quality. As the carboniferous formation was largely in the track of the Saxby gale, the timber which once stood upon it has been for the greater part blown down and burnt, but a young growth, especially of white pine, is springing up in many places, which if protected will be of very great value.

Large quantities of second growth white birch are also making their appearance, and, as this is a wood of quick growth, it will not be many years before it will be of value. Very much of the soil on the coal measures is nearly worthless for agricultural purposes, but very well adapted to the growth of the white and red pine. The streams by which the carboniferous area are intersected are free from stone and easily driven, in many cases logs could be rafted immediately to the sea from the place where they have been cut, so that we have here just the country for the purpose of experimenting in forest cultivation. About the only thing to dread is fire, to which the plains of this district are much subject. Not only could pine and birch be grown to advantage, but also tamarack,

which is a wood of rapid growth springing up around swamps and places where the ground is low and damp.

PROTECTION WHICH DOESN'T PROTECT

WILLIAMSTOWN, January 27, 1883.—The following letter has been published:—Our revenue for the present fiscal year is estimated at \$400,000,000, a sum altogether beyond our needs in a time of peace, an unreasonable burden upon the people, and a temptation to extravagance and recklessness in expenditure on the part of the government. The people are asking for a diminution of this excessive revenue by the lessening or the removal of some of the taxes imposed upon them directly or indirectly, and by means of which the revenue is secured. And now that Congress is considering how to re-adjust the burdens of taxation, what duties or taxes may be lessened or remitted altogether, we venture to suggest that one important article which should go upon the free list is lumber. If there is one thing in which all are interested, from the boy who wants a stick suitable for the exercise of his propensity to whittle to the man who wishes to build a house or a factory, it is lumber, and especially that which is the product of our white pine trees, the noblest trees of the forest. So valuable is this lumber, because it is adapted to so many uses, and so great is the consequent demand for it that the domestic sources of supply are being rapidly exhausted. Formerly we derived large quantities of pine lumber from Maine, from the banks of the Kennebec and Penobscot. Now our chief source of supply is the region comprising the states of Michigan, Wisconsin and Minnesota. And so rapidly are we stripping this region that it is estimated in the returns of the recent census, that the supply from this source will be exhausted in less than ten years. As a consequence the price of pine timber land and of lumber is rapidly advancing, enriching a few land-holders and lumber dealers at the expense of the public at large. Meantime Canada stretches along our northern border a broad belt of pine timber which she is ready to send to our markets, but which we seek to exclude by imposing upon its introduction a duty of two dollars for every thousand feet. The protection which this duty affords to our forests is, to use the words of another applied to a different subject, "such protection as wolves give to lambs, covering and devouring them." The duty amounts to a premium offered for the destruction of our forests. Our lumbermen are stimulated by the additional price of two dollars a thousand feet, which this duty enables them to charge, to cut off our forests as rapidly as possible and hurry them to market, and the people of Canada instead of cutting their lumber and giving us the benefit of it, are coming over the borders as an army with axes to hasten the destruction of our forests. It was recently stated

before the committee on the revision of the tariff that as many as ten thousand Canadian wood-choppers come into the Michigan pineries in the winter and find ready employment in cutting lumber, at wages ranging from two dollars to two dollars and a half per day. Thus our precious pine forests are not only exterminated the more rapidly and the cost of lumber to all of us enhanced, but we are putting into the pockets of our Canadian neighbors \$25,000 a day for the aid which they give us in destroying one of our most valuable possessions. For it is to be remembered that every pine into which the lumberman strikes his axe represents the growth of a century, and that those pine forests of Michigan and Minnesota are not to be reproduced in a hundred years if at all. It will be a great loss when those northwestern pineries are no more. We have other forests indeed. We have other pine forests; but none of the quality of these. It is very desirable to prolong their existence as much as possible, and if, in any reasonable and practicable way we can lessen the demand upon them so that instead of being swept utterly away a remnant may be spared, and so treated that successive growths may be secured upon the same ground, nothing more advantageous for the country in all respects could be wished for.

May we not well, therefore, relinquish all duties upon pine lumber, and welcome freely all that Canada or any other country is ready to give? We need to protect our precious forests. The lumbermen will protect themselves. They have done so already. A prominent organ of theirs, published in the northwest, proclaims that the ownership of a pine forest and a saw mill is better than that of a mine of gold or silver. The mass of the people want cheap lumber and the interests of the few lumbermen ought not to prevent their having it.

N. H. EGLESTON.

PINE STILL GROWING

The Huron County News, of Michigan, said in a recent issue:—

It is a matter of surprise to see how large a number of saw logs continue to be taken from tracts of land supposed to be thoroughly lumbered over which the fires have swept. From such sources the custom mills—of which every township has one or more—are again this winter being fully stocked, some having already all they can saw during the coming season.

Such a state of things is by no means new. Many tracts of pine lands are denuded time and time again. A few years ago a firm of extensive operators on the upper Mississippi gave out that all the pine was cut on lands which they owned on a tributary, and their forces were sent elsewhere. Two or three years ago, however, the same operators established their camps on this same denuded land again, and went right

on logging, as if nothing had ever happened. Incidentally, it may be mentioned that one of the members of this firm helped to make the census figures which so innocently assure the people that there are but 5,000,000,000 feet of standing pine in the state of Minnesota. Possibly there are people of an inquiring turn of mind who will ask, if this man know so little about the pine standing on his own land, how did it come about that he know enough about the pine all over the state to be considered an authority? but, of course, the census figures-makers would at once raise the point that the question is irrelevant.—Northwestern Lumberman.

SOLID PIANO CASES.

The piano manufacturers of this city are discarding, in a great degree, rosewood veneered cases, and making oblong cherry cases instead. The name of rosewood, when pronounced, is a very pleasing word to some, but that does not prevent the wood, when laid on a piano case from splitting and blistering, which it almost invariably does, sooner or later. A rosewood case, a few years old, that looks decently, is difficult to find. The manufacturer is often cursed for it, but he is not to blame. It is the nature of the wood. A Chicago manufacturer had a large number lot of cherry sawed by Muskegon, Mich., parties, and will use it in many of the instruments turned out by him. There is no reason why a solid cherry case should not hold its good appearance until the piano is worn out. A certain class of purchasers—and much the larger class—have some regard for durability as well as style, and these are learning to let a rosewood veneered piano alone. Should the use of cherry become very general in this industry, it will open up a demand for it that has not heretofore existed.—Northwestern Lumberman.

MIDLAND.

The Free Press says:—While taking a stroll around our little village, I observed a structure being placed on the mill dock at Dollar's mill. On enquiry from our Mr. Fraser what it meant he gave me the very pleasant information that Mr. G. A. Greer, a Montreal lumber merchant, has purchased the entire stock, (with the exception of the mill culls, which were sold previously to Mr. Kennedy, of Toronto,) with the intention of shipping it to the Northwest in the spring. Mr. Priest, Mr. Greer's agent, is placing three planing mills on the mill dock, and a rip-saw to be driven by the engine belonging to the mill, to prepare the lumber for immediate use when it reaches its destination. We wish Mr. Priest success in his undertaking. It is a new thing in these parts and it is already doing good, as many of our noble lumbermen will get employment instead of walking around with faces on them as if they were going to their father's funeral.

MANITOBA LUMBERING.

The *Emerson International* of Feb. 17, says: R. J. Short, Esq., a prominent and well-known tie and timber contractor, was an agreeable caller at the *International* office to-day, and during his call, gave a reporter information in regard to his lumbering operations on the Lake of the Woods that may not be without interest to the general public.

Mr. Short has a contract for getting out 15,000,000 feet of logs and 150,000 railway ties, the latter for the C. P. R. Co. He gets his supply of timber from his timber limits on the Lake of Woods, and has eight camps. He employs 215 men and about 50 teams. Wages are as follows: choppers, \$30 per month and board; hewers, \$25 per month and board; teams and teamsters, \$2.75 per day and found. Mr. Short was too modest of course to say anything about the excellent board he provides his men, but we know from expressions of Emersonians who have worked in his camps that he provides first-class fare for his men. The rations include fresh fish, fresh and salt beef, fresh and salt pork, tea and coffee, fresh bread, etc. Mr. Short states that that he has about thirty-five men from Emerson at work in his camps, and quite a number of teams from this point. The object of his visit to Emerson this time was to purchase and hire a number of teams. He purchased two fine teams from Mr. Wm. Coutts, and will engage a sufficient number of horses to make up a carload. Mr. Short furnishes free transportation for men and teams to the camps. He has already shipped three carloads of horses from this point.

Mr. Short states that the eastern portion of Manitoba, or the "disputed territory" is far more valuable for its minerals and its timber than most people imagine. As an instance of the supply, Mr. Short relates that from eight acres his men cut 9,100 logs and 27,000 ties. The pine is of the red and white variety. The trees are straight, and frequently 114 feet high, while some four feet in diameter have been cut.

Mr. Short is erecting a large saw mill at Rat Portage, which promises to become the Minneapolis of the Canadian Northwest. He also has very ingenious machinery at Rat Portage, operated by steam, to facilitate the loading of ties on flat cars for shipment. Those members of the Press Excursion party that visited the Lake of the Woods last summer will remember with what interest the party watched the working of the contrivance which loads a car in incredibly short time.

THE U. S. TARIFF.

In the debate in Congress on the Lumber Tariff, Mr. Horr of Michigan, said: "Last year the State of Michigan alone manufactured 3,850,000,000 feet of pine lumber. The product of the forests in Michigan last year, including laths, shingles, staves, etc., amounted to the enormous sum of \$60,000,000. The lumber product of the United States as a whole was worth the sum of \$230,000,000. The value of the mills and lumber plants in Michigan alone is over \$40,000,000; in the entire United States \$180,000,000. The mills in Michigan employ 21,000 men at an average of \$2 per day, and the camps employ 35,000 men at an average of \$1.75 per day. It will thus be seen that in Michigan there is being paid out to laborers in this industry, over \$100,000 per day. Last year Michigan paid on its lumber industries \$17,500,000 for labour alone. The United States paid over \$80,000,000. There were at work in the United States in the lumber mills 90,000 men, and in the lumber camps 130,000 men. The lumber interests of the United States last year bought and consumed \$30,000,000 worth of products of the farm for food for man and beast. Last year Michigan, Minnesota and Wisconsin produced 7,500,000,000 feet of lumber. In the northwest were produced last year over 4,000,000,000 shingles. There is left in the United States to-day a large amount of standing pine. On the lower peninsula of Michigan there are 7,000,000,000 feet. There are of standing pine in Michigan, Minnesota and Wisconsin 81,000,000,000 feet; in the Southern States the enormous amount of 230,000,000,000 feet; in Canada there are only about 75,000,000,000 feet of standing pine. That imported each year into this

country is less than 400,000,000 feet, the revenue from which amounts to about \$1,000,000." Mr. Horr said he had given those facts to show the enormous magnitude of this interest. "The question now is why should there be a duty upon this article. The commission recommended keeping the duty on lumber where it is. The stumpage on lumber in Michigan averages about \$4 per thousand. The bulk of lands in Michigan and Wisconsin were granted by the government to different corporations. In Michigan large grants were given to the canal company and four or five railroads running through the peninsular. Very little, if any, of the pine of Michigan now left in the hands of mill men was purchased at Government price. The lands from which the manufacturers get their supplies have to be bought at advance rates. The taxes in Michigan are ten times as large as they are in Canada. Wages are 30 per cent higher. The price of articles is higher in the United States than in Canada. All farm products are higher, horses are higher."

In regard to the question of preserving the forests in Michigan, Mr. Horr said they were compelled to lumber their lands or lose them altogether. "All through that state settlers are building up farms. Railroads have been run in every direction. This causes large fires. When the timber is burned it has to be lumbered within one year or it becomes worthless. A worm or grub attacks the tree as soon as it commences to die. The question is not so much how to preserve the forests as how to preserve the timber when the forests are burned. With the tariff on lumber which protects against the coarse lumber of Canada, they can lumber their lands much more closely than when lumber is low. It was stated that lumber was high, but, asked Mr. Horr, "is it true that a country is most prosperous when the prices of everything is low?" He held the contrary to be true. Mr. Horr said it had been his aim to stand by from the start all the industries of the country. He had tried to rise above the mercantile advantages. They had been living twenty-two years under the present tariff system and no other nation could show such general advancement. No class of men were more prosperous than the tillers of the soil. They find a ready market and a good price for all they can raise, and they fully understand that this state of things exists on account of the enormous industries that have grown up and become prosperous under the present tariff system.

DISTRICT OF NIPISSING.

TOWNSHIP OF FIELD.

The following is taken from the official report:

ST. MARY'S, ONTARIO.

December 31st, 1881.

SIR,—I have the honor to inform you that I have completed the survey of the township of Field, under instructions from your department, dated May 18th, 1881, and have to report thereon as follows:

Leaving Toronto on the 15th of June, I proceeded to the township, via Rosseau and Nipissing, crossing Lake Nipissing by the steamer Inter-ocean to Sturgeon Falls. I then proceeded by canoes up Sturgeon River to the northeast angle of the township of Springer, and having obtained on the 21st of June an observation of Polaris on east elongation commenced my survey by running the east boundary of Field on a course astronomically north, making the concessions one mile in depth, from one to six; the lots were laid out forty chains in width along the south boundary by retracing the northern boundary of the township of Springer from one to fourteen inclusive, and I found only twenty-seven chains, twenty-five links left for lot fifteen to the northwest angle of Springer, instead of thirty-seven chains as shown on sketch furnished me. From the post at the northwest angle of the township of Springer, the west boundary was drawn on a course north astronomically as per instructions. In carrying out the survey I ran the line between concession two and three from the east to the west boundary, on a course west astronomically making the lots forty chains in width to lot fifteen returning to side line between lots ten and eleven. I ran north astronomically to the north boundary. The western portion of the survey was

then completed in the manner set forth in instructions, and finally I worked east completing the work at the northeast corner of the township.

The latitude of south boundary I assumed as north 46° 27' 16". The variation of the needle was found to be west 6° 15'. Astronomical observations were taken frequently during the progress of the work, the details of which will be found among returns of survey.

I have to report about one-third of this township fit for settlement. The valley of the Sturgeon River, which traverses this township from southeast to northwest, is clay soil with an occasional vein of sand, which when cleared will make excellent farming land; while a fair portion of township may be described as sandy loam, the best land is along the Sturgeon River and northern or central portion of the township, the other portion being rocky and generally unfit for settlement.

Considerable white pine is scattered over the whole of the township, the southwest quarter is a very valuable limit of timber, the pine being of large growth and good quality, some very good pine was also found in the northwest quarter of the township, and the township generally is covered with a thick growth of white birch, balsam, spruce, cedar, tamarack, etc., here and there a few maples, some very good groves of cedar suitable for telegraph poles, and tamarack timber suitable for railway ties being met with.

As before stated the Sturgeon River traverses this township from northwest to southeast, eventually falling into Lake Nipissing. It is a stream about three chains in width and fifteen feet in depth, very suitable for driving purposes. The Tomiko River is the principal stream coming in from the northeast, and various creeks from other portions of the township—some of them being outlets of lakes—find their way into the Sturgeon River; a few lakes, as shown on my plan of the township, were met with.

The general character of the township is undulating, but not broken, here and there a cliff, but no very high hills are met with. The formation is granite and is but scantily covered with soil in many places, especially in the southwest, northwest, and northeast portions. I did not observe any traces of valuable minerals, and saw no rock but ordinary granite.

Access to this township is at present by Lake Nipissing and the Sturgeon River, but the Canadian Pacific Railway will doubtless afford the means of settlement at an early day.

There being no squatters in the township no Inspection Returns are necessary.

I have the honor to be, Sir,

Your obedient servant,

(Signed) H. R. McEvoy,
Provincial Land Surveyor.

RIGA GOODS.

The *London Timber Trades Journal* says that a correspondent favors it with the following extract from a letter from Riga:—"The manufacture of wood goods at Riga will during the coming season be conducted on a considerably reduced scale. In the first instance it will be remembered that last winter was highly unsuit-

able for the felling or transporting of timber, in consequence of which circumstances a much smaller quantity of logs reached Riga than usually is the case, which again influenced the price to a degree preventing the millowners from buying anything like their usual stocks.

"But the great check to production will come from the Fire Insurance Companies throwing as they do serious difficulties in the way for the renewal of expired policies of sawn goods.

"It is hardly surprising that the companies should try to resort to extraordinary measures in view of the numerous and highly disastrous fires in timber yards, mills, &c. during the last years in Russia and Finland; but we find this stipulation quite prohibitory to trade, viz. "that the insured is to take a quarter of the risk himself." The rate of insurance has recently been raised to 3 per cent. on these kinds of goods, and the stockholder has thus actually to pay 4 per cent. on the insured amount, of which 25 per cent. is not recoverable in case of accident.

"It is rumored that a firm of large mill-owners and shippers will give up the timber trade entirely, in order to engage in another branch of business on account of the above mentioned difficulty to insure their goods. Partly for the same reason, and partly from want of logs, two other saw-mills have stopped work, and one mill burnt last year has not been rebuilt. The above three mills turned out and shipped more than 30,000 standards. Thus this quantity will at least be less exported than last year, not counting that the rest of the mills will also have to restrict their production for reasons mentioned above."

Old Timbers.

The posts of a railing recently put up in the new office of the Sycamore Powder Company, on Market street, Nashville, are carved out of white oak timber cut about forty-five years ago, at Sycamore Mills, in Cheatham County, Tenn. The timber out of which these posts were made was used by the late Judge Samuel Watson in the construction of a mill-race, and lay immersed in the water over forty-two years, when they were taken out, and after being seasoned, Maj. Eugene Lewis, manager of the Powder Company, had them fashioned into their present shape. The wood is as sound as it was the day it was cut, and has become almost as hard as iron, and turned a very dark, almost black color.—*Southern Lumbermen.*

The *Lumberman's Gazette* of Bay City, Michigan, says:—"That the immense snowfall and other peculiarities of the weather have greatly interfered with logging operations all over the country, is undoubtedly true, and that a great shortage in the anticipated cut will result is also undoubtedly true. It may be said that the elements, by their late unpleasantness have been playing into the hands of the lumbermen, in interfering with the enormous output of logs which had been anticipated. In fact it may be stated with a great deal of truth, that the elements have conspired to prevent the average lumberman from committing business suicide.

LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Jan. 30th, 1882 and 1883, and also the Consumption for the month of Jan., 1881 and 1882:—

	Stock, Jan. 30th, 1882.	Stock, Jan. 30th, 1883.	Consumption for the month of Jan 1882.	Consumption for the month of Jan 1883.
Quebec Square Pine.....	284,000 ft.	256,000 ft.	02,000 ft.	04,000 ft.
" Wany Board.....	318,000 "	245,000 "	10,000 "	43,000 "
St. John Pine.....	16,000 "	8,000 "	2,000 "	19,000 "
Other Ports Pine.....	35,000 "	47,000 "	—	7,000 "
Red Pine.....	80,000 "	58,000 "	—	—
Pitch Pine, hewn.....	523,000 "	524,000 "	50,000 "	43,000 "
" Saw.....	324,000 "	522,000 "	113,000 "	67,000 "
Planks.....	74,000 "	84,000 "	8,000 "	8,000 "
Dantzic, &c., Fir.....	46,500 "	40,000 "	9,000 "	23,000 "
Sweden and Norway Fir.....	13,000 "	21,000 "	3,000 "	—
Oak, Canadian.....	537,000 "	304,000 "	10,000 "	31,000 "
" Planks.....	78,000 "	105,000 "	33,000 "	17,000 "
" Baltic.....	61,000 "	34,000 "	3,000 "	0,000 "
Elm.....	50,000 "	43,000 "	3,000 "	8,000 "
Ash.....	17,000 "	9,000 "	1,000 "	5,000 "
Birch.....	104,000 "	68,000 "	21,000 "	34,000 "
East India Teak.....	13,000 "	13,000 "	1,000 "	—
Greenheart.....	34,000 "	128,000 "	11,000 "	4,000 "
N. B. & N. S. Spruce Deals.....	16,803 stds.	20,122 stds.	1,000 stds.	4,462 stds.
" Pine.....	934 "	1,500 "	—	—
Quebec Pine & Spruce Deals.....	7,233 "	8,035 "	570 "	447 "
Baltic Deals.....	3,025 "	4,848 "	95 "	164 "
" Boards.....	145 "	361 "	53 "	89 "
" Boards Flooring.....	1,766 "	3,395 "	137 "	544 "

AUSTRALIAN TRADE.

Messrs. Gemmoll, Tuckott & Co.'s last report, dated Melbourne, December 20th, says. Notwithstanding the advanced rates for money now ruling, operations in the building trade continue as brisk as ever, and although the consumption of timber continues on the same large scale as reported by us in all of our issues during the present year, stocks are steadily accumulating, and in view of the large quantities yet to arrive we do not anticipate that present rates will be maintained, unless great caution is exercised by importers in handling their stocks. American lumber.—This has fully sustained our ideas of an advance on last month's rates, and we believe that higher prices will be obtained at the next offerings at auction, as the trade holds stocks sufficient for requirements. We report sales of Penobscot, Childers, Loising, and Abbie Carver. Prices realized were:—For w. p. shelving (inferior), 12 in., £9 2s. 6d.; 14 to 16 in., £8 15s.; Michigan clear pine, 1 1/2 in. to 4 in., £18 2s. 6d.; 1 1/2 in. to 2 in. Canada do., £18 to £17 17s. 6d.; 1 in. dressed clear, 12 in. to 14 in., £16 7s. 6d. to £16 2s. 6d.; 12 in. to 14 in. shelving, £11 5s. to £9 5s., according to quality; Michigan clear pine, 1 1/2 in. to 8 in., £18 10s. to £17 5s.; dressed clear, 12x1, £16 2s. 6d.; 12 in. ordinary shelving, £11 per 100 ft. super.

THE ENGLISH WOOD MARKET.

We take the following from Messrs. Robert Coltart & Co's. annual wood circular, dated Liverpool, January 31st, 1883:—

QUEBEC YELLOW PINE.—The import during the past season has exceeded that of 1881 by 24 per cent. In the early part of the year the stock of both square and waney pine was unprecedentedly light, and prices ruled extremely high. The arrivals during the year met with ready sale at full prices until towards the close of the season, when they became rather easier, but as the stock now held is comparatively small, consisting of only 503,000 feet, full prices are again demanded. It is gratifying to find that the trade have been able to import this wood profitably at the present high prices, in the face of the large stocks of, and low prices for pitch pine. The total consumption during the year has consisted of 1,950,000 feet, against 2,013,000 feet in 1881. The sales have been, of waney board pine, of prime quality, 15 inches average at 2s 1d per foot, 18 1/2 inch average at 2s 7d per foot, 19 1/2 inch average at 2s 7d per foot; of prime square pine, 18 inch average at 2s 6 1/2d per foot, and deck plank wood at 2s 6d per foot; good fair average square, 15 inch average at 2s 2 1/2d per foot, and 12 1/2 to 14 inch average at 2s. 1d. to 2s. 2d. per foot. The import of St. John pine has consisted of 2,081 logs against 1,690 logs last year. Of Miramichi pine, sales have been made, of 13 to 14 inch average, at 20d. per foot, and of Newfoundland pine, 14 to 1 1/2 inch average at 23d. per foot.

RED PINE.—More business has been done in this article than for several years past, the import having consisted of 135,000 feet against 51,000 feet in 1881, and the present stock consists of 58,000 feet. The sales have been—of 27 feet average at 1 1/2d. per foot, 35 feet average at 16 1/2d. per foot, and 50 feet average at 20d. to 20 1/2d. per foot.

QUEBEC OAK.—The import has slightly exceeded that of last year, but there has been a fair consumption, and the stock on hand is very moderate. With inferior wood the market has been amply supplied and sales have been difficult to make, but the supply of prime wood has been limited, and prices have shown little variation, the sales having been—of 53 feet average at 2s. 10d. per foot, of 65 feet average at 3s. per foot, 55 to 64 feet average at 3s. to 3s. 1d. per foot, and 68 feet average at 3s. 2d. per foot.

ELM.—There has been a fair enquiry for this article at steady prices, and the consumption has exceeded the import, which consisted of 125,000 feet. Prices have shown little change, the sales having been—of 50 feet average at 23d. per foot, 54 feet average at 2s. to 2s. 1d. per foot, 45 feet average at 2s. 0 1/2d. per foot, and 45 to 50 feet average at 2s. per foot.

BIRCH.—The arrivals have been light during the year, and as the consumption has been on a fair scale, sales have been readily made at good prices. The present stock is light, consisting

of 72,000 feet, against 106,000 feet at the same time last year. The sales have been—of St. John, 1 1/2 inch average, at an average of 20 1/2d. per foot, 15 inch average at 17 1/2d. to 18 1/2d. per foot, and 15 1/2 inch average at 20 1/2d. per foot. Parcels of Lower Port wood have realized 10 1/2d. per foot for 15 inch average from Miramichi and Dalhousie, and 13d. to 14d. per foot for Prince Edward's Island wood.

QUEBEC PINE DEALS.—The import during the past year has amounted to 21,116 standards, against 18,930 standards during 1881. During the first few months the demand was dull and prices declined, and the early shipments being pressed forward by steamers at low freights, there was a further fall in values to a point below the cost of import, which, however, was recovered before the end of the season. The present stock amounts to 5,822 standards, being about equal to that held at the same time last year. Prices opened at from £20 to £22 10s. per standard for 1st quality, £14 to £15 per standard for 2nd quality, £9 10s. to £10 per standard for 3rd quality, from which, about June, they declined about 10s. per standard, but have since recovered to about the opening prices.

A SHORT CUT.

There is a strong probability that the cut on some of the streams will fall short of what was intended to be put in, and it is rather paradoxical that the majority of the operators are rejoicing over such a prospect. Before they put their forces in the woods they know there was a large stock of lumber at nearly every point, and that a heavy production this season would have a decided tendency to push prices downward; nevertheless they prepared to cut more logs than were ever cut before in one season. A few concerns, understanding that conservatism would be a jewel, pulled in their sails in part, but the others went right ahead, declaring at the same time that there would likely be an overstock, and that the only legitimate outcome would be cheaper lumber. Now that Providence has stretched out a hand to help them, albeit they would not help themselves, they grasp the hand with all the fervor of an old friend, and declare that things do sometimes come right in spite of them. One of the largest operators recently visited the *Lumberman* and stroked his beard with satisfaction at the outlook, and expressed a belief that 75 per cent. of the intended cut would put as much money into the manufacturers' pockets as the entire anticipated cut would—and without much doubt he reasoned well. The *Lumberman* has held for some time that it would be wise on the part of the saw mill men of the Northwest to regulate the supply by the demand—to avoid putting two boards on the market when the demand called for but one—and it is rather pleased to know that so many have accepted its teachings as correct, notwithstanding they have not cultivated sufficient nerve as yet to live up to them. The prosperity of the lumber industry depends largely upon steady prices, and the *Lumberman* has no sympathy with the man who would push the prices of lumber ruinously low, providing they could, and none with those who would force prices to such heights that the demand, in part, would be choked off.—*Northwestern Lumberman.*

U. S. LUMBER TARIFF.

The *New Orleans American Lumberman* contains the following communication under the heading "Unjust Discrimination":

ALEXANDRIA, LA., Feb. 12, 1883.

I notice with much surprise and regret the action of the Senate of the United States in passing a bill to take off the duties on Canadian lumber. This is an injustice to a large industry, and to many men, now being supported by it, for the following reasons:

1. There is about three hundred million dollars, and one million men engaged in the business, and a reduction if made at all should be gradual, say 50 cents per m. at a time—and not violent—such as taking the whole \$2.00 off at once.


2. Careful estimates by practical lumbermen show that the forestry bulletins of the Government are unreliable, as there is a much larger

Lumber Drivers' Calks


For Use in Stream Driving to insure a safe footing in Slippery Places.

25 in ball and 5 in heel are the numbers usually required.


SMALL BALL




MED BALL



LARGE BALL




SMALL HEEL



LARGE HEEL



SCREW HEEL



PRICES for the six different sizes and for Calk Sets and Punches for adjusting Calks, on application to

T. McAVITY & SONS,

Dealers in Lumber and Mill Supplies,
ST. JOHN'S, N.B.

quantity of white pine in the Northern States than the Government agents report.

3. There cannot possibly be any scarcity of lumber for a century after the Northern States have been depleted of their standing pine, for the reason that there are larger tracts of yellow pine in the Southern States.

4. This can be all used where white pine is now used, by using thinner boards for boxing, building, and most other purposes, by which the difference in weight, as relating to transportation will be overcome, as a yellow pine board five-eighths of an inch thick—timber—in proportion, and the duty on lumber should be retained so that our Southern States may have the benefit of northern capital to develop this vast industry, which I am afraid will not be done for years if Canadian lumber is admitted free of duty.

5. Everything to produce lumber in Canada is at least 25 per cent. cheaper than in any part of the United States.

6. The average price of lumber to the consumer is about \$20 per thousand feet, and the present duty of \$2 is only 10 per cent. of its selling value in the States, and as probably nine-tenths of the people who use lumber are people above the laboring classes, the duty is not in any sense a burden upon the community.

7. Consider the difference it will make to the States having these large tracts of yellow pine—Mississippi, Georgia, Florida, Louisiana, Arkansas, Missouri, and North and South Carolina—whether they are developed, or left comparatively untouched, as they certainly will be for years, if Canadian lumber comes in free of duty.

I would like to see some action taken by your lumber exchange, and if possible a meeting called, and the subject ventilated, and memorials circulated and sent to our representatives, protesting against having an injury done to our infant industries.

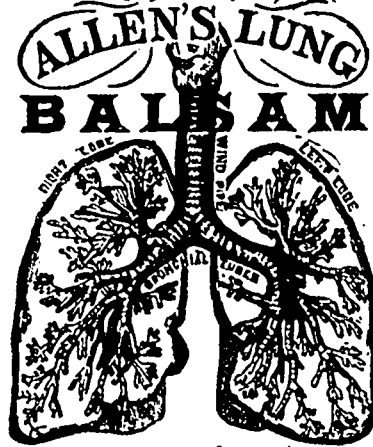
Yours,
LONG LEAF PINE.

Messrs. Whitesides, of Champlain, N. Y., have purchased seven hundred cords of wood from Mr. Bachand, of Roxham, Que., at \$1.50 per cord and are drawing it to their paper mills.

A new industry in the Southern States is the making of pressed wooden plates. A factory in Newbern, N. C. is turning out 100,000 per day, and there are two other factories, one at Frankford, Delaware, the other at Sunderland, Vt., for making the same articles.

The *Parry Sound North Star* says:—The Maganettawan Drving and Boom Company, has been granted Letters Patent by the Lieutenant Governor in Council. The members of the Company are: Hon. W. E. Dodge, Arthur M. Dodge, and H. Dodge, of New York, U. S.; Jesso S. Peckham, Waubaushe, Ont.; Henry L. Lovering of Coldwater; James Scott, of Waubaushe, and James H. Buck, Byng Inlet. The object of the Company is to operate the rivers tributary to the mills of the Maganettawan Lumber Company at Byng Inlet, in this district.

ALLEN'S LUNG BALSAM



(This Engraving represents the Lungs in a healthy state.)

THE WAY IT WILL AFFECT YOU.

It excites expectoration and causes the lungs to throw off the phlegm or mucous; changes the secretions and purifies the blood; heals the irritated parts; gives strength to the digestive organs; brings the liver to its proper action, and imparts strength to the whole system. SUCH IS THE IMMEDIATE AND SATISFACTORY EFFECT that it is warranted to break up the most distressing cough in a few hours time, if not of too long standing. It is warranted to GIVE ENTIRE SATISFACTION, EVEN IN THE MOST CONFIRMED CASES OF CONSUMPTION! It is warranted not to produce costiveness (which is the case with most remedies), or affect the heart, as it contains no opium in any form. It is warranted to be perfectly harmless to the most delicate child, although it is an active and powerful remedy for restoring the system. There is no real necessity for so many deaths by Consumption, when ALLEN'S LUNG BALSAM will prevent it if only taken in time. Physicians having consumptive patients, and who, having failed to cure them with their own medicine, so would recommend to give ALLEN'S LUNG BALSAM a trial. Sold by all Druggists.

PERRY DAVIS' VEGETABLE PAIN-KILLER.

This celebrated Medicine is recommended by Physicians, Ministers, Missionaries, Managers of Factories, Workshops, Plantations, Nurses in Hospitals,—in short, everybody, everywhere who has ever given it a trial.

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

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

FORESTRY IN CANADA.

The following paper was read by A. T. Drummond, of Montreal, at the meeting of the American Forestry Congress at that city:

Perhaps no trade question has around it at the present time so much interest as that of the conservation of our forests with a view to the continuance of the lumber industry. This industry has once more revived, and very large demands are now being made on our lumber supplies. Public attention cannot, however, be too strongly directed to the fact that those timber supplies are not unlimited. The drain which has been going on for thirty years past on the resources of our forests, has been so vast and so continued that the questions are now being forced upon us—for how long a time can those resources be depended on, and what efforts are being made to provide for that supply being continuous? It is perfectly clear that under the present system of farming out the public lands, the time is near at hand when the supply of merchantable standing timber will not equal the demand made upon it, and it is imperative that means should at once be adopted to preserve and recuperate these timber lands. Those who are familiar with the localities—each year extending further northward and westward—where the lumbermen obtain their logs, cannot be blind to the fact that the area in which the pine may be expected to be found of merchantable size and in fair abundance, is not so extensive but that another few years of working the timber limits to the extent done in the past, must result in a marked diminution in our exports of white pine. It is not with timber as with other agricultural products. Reproduction cannot take place in a year or a decade. It must be recollected that not until the pine is from seventy-five to one hundred years old is it of good merchantable size for square timber, and that thus at least three-quarters of a century would be required to make these timber limits what they were. And what has been the experience in Maine and Michigan? The pine forests of both these States were thought to be inexhaustible, and gave employment to many thousands of men. Bangor, on the Penobscot, was one of the busiest spots in New England—so many mills lined the river banks, and so many vessels frequented the port for lumber. Now the scene is largely changed. The pine lumber manufactured there has fallen from 102,000,000 feet in 1856 to 63,000,000 feet in 1866, and to 14,000,000 in 1877, whilst the total production of pine, spruce, and hemlock boards was not in 1877 one-half in amount what it was in 1866. Again, in Michigan, the Saginaw Valley is being rapidly depleted, and to supplement the supply to its numerous mills, whose capacity is 600,000,000 feet, logs have to be brought from other large rivers long distances away. But most important of all is the fact that the lumber journals of the Western States admit that in the three states of Michigan, Wisconsin and Minnesota—the main sources of lumber supply in the West there does not, with the present demand, remain of standing pine timber sufficient for ten years to come.

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

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

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

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

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

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

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

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

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

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

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

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

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

THE LITTLE PINES.

MALVERN, ARK., February 5, 1883.

A correspondent of the *Northwestern Lumberman* writes as follows:—

You ask, in your issue of January 27, the cause of the absence of young pines in the vast yellow pine forests of the south, and discredit the theories of their being killed off by the annual fires and by hogs. In the early summer, after a very wet spring, the hogs are troubled with kidney worms, more or less, and when thus affected they eat the roots of the young trees. Again, the fires, in a yellow pine forest of any density, are slow fires of sufficient vigor and duration to kill off trees five or six years old. Another reason is that the pine straw keeps the seed away from the soil to a very considerable extent, and it is eaten by birds, squirrels, etc. These, however, are not the main causes. The lack of light and heat is against the young trees in the deep woods, and without these the yellow pine is a dwarf in the richest soil. The observer will notice primitive forests in all the old fields of the south in nearly every stage of growth, from the infant plant to the tree of 20 inches in diameter. Here, a field of one year's growth, completely filled with trees knee high, and as thick, so to speak, as the hair on a dog's back; another of some three years' growth, with the future forest a little marked out by the sturdy growth of, say, 10 per cent. of the little trees, the smallest beginning to show the effect of the shade; then another of five or six years' growth, showing the effect of last fall's burning over—all the little ones entirely burned off and one-half of the larger ones killed, leaving enough to shade the ground perfectly; still another field presents a clearer demarkation of the future timber land, all the trees having an appearance of being the same age, yet only about one-third of them promising more than a stately sapling.

The young pine growth in stumpage clearings bids all fear of a lumber famine to "go awa;" and although it is true that the same soil will not produce the same kind of pine where the loblolly has grown, it is not true of the long leaf, the yellow pine par excellence of the United States. This variety reproduces in the same soil with increased vigor, caused by the more regular fires of the settlers, who are sure to be found where the saw mills have been—who burn off the woods every year to improve the range and prevent forest fires, thus keeping the young forest thinned out, admitting air, sunshine and heat. —W

PULP MILL IMPROVEMENTS.

The *Northwestern Lumberman* says:—The Umbagog Pulp Mill Company, of Livermore Falls, Me., has been making improvements. A canal has been dug, and general changes made, which are thus outlined by a local paper: The main building has been removed down the river 220 feet, and a heavy wing dam extended from the main dam to the mill. The mill is now 36x70 feet in size, with an L of 25x30 feet, three stories high, used for boiler, store and finishing room. The flume of the mill is laid on the solid ledge. The material is of the best pine lumber bolted together in the most thorough manner, and the iron required for making bolts and rods for the flume is estimated to weigh 6,000 pounds. The flume is 50 feet long, 12 feet high and 10 feet wide on the inside, with an extension on the front to receive the bulkhead, in which are five gates, each 3x6 feet. The flume, with the extension, is 28x16 feet on the front. The driving power will be supplied by six water wheels of the most im-

proved pattern, under about 18 feet head. Four grinders will be placed in position at once. The log will be taken from the river, pass over a large circular saw, which will cut the bolts into right lengths for use. They will then be carried by a belt to the barking-machine; from thence to the double splitting machine, which will require four men to run it, and thence to the grinders. After leaving these, it is conducted below, into steam cylinders, and pumped by power, on the wet machine, so called, where the fiber is separated from the water, and taken off in sheets of clean, white pulp, suitable for making into paper, paper boxes, etc. It is then packed in bundles of 100 pounds each for market. When the mill is fully equipped, it will furnish employment for about 40 operatives.

Importance of Small Industries.

Speaking in Congress the other day of the need of encouraging certain relatively small industries, Senator Miller referred to the city of New York, the greatest manufacturing city in America—he might have said in the world—and "yet she has not a cotton mill, a blast furnace, or a rolling mill within her borders. Her manufacturing are small," he said, "but they employ more than a quarter of a million people.

It is worthy of notice in this connection that while recent patents have much to do with the means and methods of the great staple industries, such as steel and iron production, iron milling, cotton and woolen manufacture, and the like, the smaller yet in the aggregate immensely important industries are almost wholly based upon and due to the development of recently patented inventions.—*Scientific American.*

The Tariff Question.

The *Northwestern Lumberman* says:—The tariff question still broods like a cloud of doubt over the lumber business, especially at the East. A correspondent from Nova Scotia writes that an unusual effort is being made in that province to get in a large log crop. It is possible that the operators have an eye to the removal of the lumber duty, and intend to be ready for the main chance as against Ottawa and the Georgian Bay. It is noteworthy, however, that wages in Nova Scotia are higher than in previous years, and that labor is scarcer. It is barely possible that lumber cannot be produced any cheaper in the Dominion than on this side of the line, which would equalize the value of forest products on both sides as naturally as water finds a level.

Red Lake Fluc.

The Grand Forks *Plainsdealer* says that the men interested in the growth of that place still have their anxious eyes on the Red Lake pine, and do not intend to be put off their guard because there is silence regarding the Washburn bill. The *Plainsdealer* asserts that the pine of the Red Lake region is tributary to Grand Forks, and that city has the enterprise and capital to obtain and manufacture it into lumber, which can be furnished to the country to the westward at prices lower than are paid at Minneapolis. Every move is watched, the friends of Dakota in Congress are kept posted as to the wants of the territory, and it is hoped that the schemes of the Minneapolis men will be baffled.

The Tariff and Hemlock.

The Saginaw valley lumbermen are especially exercised about the effect of the tariff bill on hemlock lumber. One of them is said to have reported that the vast quantity of hemlock in Michigan is just coming into market, but if the duty on foreign lumber is removed, the Wolverine hemlock cannot compete with the Canadian product in Eastern markets. The country in northern Michigan is being cleared up, and the hemlock will be burned up if it cannot be cut and marketed. For this reason it is thought that placing lumber on the free list will particularly damage the hemlock interest.—*Northwestern Lumberman.*

The U. S. Tariff.

The *Northwestern Lumberman* say:—The opponents of free trade in lumber have boistered themselves since the senate act in placing lumber on the free list, and thousands of names

have been forwarded from all parts of the Northwest in opposition to the measure, while the promoters of the petition movement at Chicago have been flooded with correspondence urging, in nearly every case, the holding of a convention. As, however, it is deemed certain that the question will not be settled by this congress, or, if reached, will be defeated, it is not considered advisable by the Chicago committee to call a convention at this time.

A THOROUGH dosing of raw turpentine will clear hickory of the ravages of worms, destroying those already at work in the timber. It is a good expedient for carriage-makers and others.

A GRAPE-SHOT has been found imbedded in a pine tree in Jackson county, Ala., seven miles west of the Apalachicola river. It is supposed to be a relic of one of Gen. Jackson's Indian fights in the Seminole war.

THE *Northwestern Lumberman* says:—There was lately cut at F. N. Wright & Co's. camp, a little north of Stanton, Mich., a forked tree, which turned out 31 logs, but one having been rejected, 30 sound logs were obtained from the tree.

THE *Northwestern Lumberman* says:—Housh & Bros. are buying bird's-eye maple in Ogemaw county, Mich., to be shipped to New York city for veneering purposes. They will have shipped from Ogemaw county, when they have done, 50,000 feet. They are paying \$11 a thousand.

WHAT is called the boss cherry log of the country was recently got out at Potter, Pa. It was cut by James McNulty on Bingham's land at Ellison's pond, was 18 feet long, sound and clear, and scaled 1,550 feet. The scaler pronounced it the largest and finest cherry log he has ever seen. It was all there was in the tree, weighed 10,850 pounds, and was worth \$150.

JAMES HARRIS, of Rising Sun, Ind., while engaged in sawing veneering from a walnut knot, discovered in the twisted fibres of the wood a perfect delineation of a spaniel's head. The lines are said to be as accurately drawn as if from the pencil of an artist, and so true is the semblance that even the expression of mute intelligence one often sees in canine visages is readily seen.

It is stated there are now more hemlock logs in the Allegheny river, Pa., between Connersport and the State Limits mill than there ever was before. The sleighing has been good and the streams frozen over. On account of unfavorable hauling conditions, it is said there was two years' supply of logs back in the woods at the opening of the present season. There is estimated to be 40,000,000 feet of logs in the water.

THE *Northwestern Lumberman* says:—The Flint & Pore road, in Michigan, is running about 15 log trains. The quality of the logs brought out is said to be better than those of last year. The Harrison branch of the road will be extended 12 miles beyond Harrison, which will increase the product of the road about 500,000,000 feet, while the branch built last fall from Coleman will open up about 700,000,000 feet.

Letter from Member of Congress.
HOUSE OF REPRESENTATIVES,
Washington, D. C., Feb. 19, '82.

GENTLEMEN,—Inclosed find \$1, and will you send me some of N. H. Down's Vegetable Balsamic Elixir by express. I have a bad cold, as has almost every one else here, but cannot find the Elixir, which I used frequently at home and consider a most valuable medicine; in fact, the very best remedy for a cold that I ever used. Very truly yours, WILLIAM W. GROUT.

LITTLE BY LITTLE.—The constant dropping of water will wear away even the hardest stone. So the constant irritation of a cough will so wear upon the lungs as to induce incurable Consumption. Haggard's Pectoral Balsam will cure the worst cough, speedily and effectually.

WALTER LINTON, of Waterloo, writes that Haggard's Yellow Oil has done great good in his family, his wife being cured of Callosous lumps that other medicines failed to remove, he also states that a neighbor was promptly relieved of Rheumatism by the same remedy.

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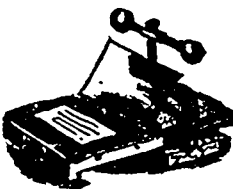
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THE CANADA LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY
TOKER & Co. PETERBOROUGH.

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Per line, for six months..... 50
Per line, for three months..... 30
Per line, for first insertion..... 10
Per line, for each subsequent insertion to 3 mo's..... 05
Cards not occupying more than 12 lines (1 inch) per annum..... 8 00
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Advertisements intended for insertion in any particular issue should reach the office of publication at least four clear days before the day of publication, to insure insertion.

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

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

PETERBOROUGH, Ont. MARCH 1, 1893.

AN Ottawa correspondent says:—The timber cut on the Mattawan this year will be an unusually large one.

THE demand for California redwood in the east is increasing. It takes a good finish, and presents a good effect.

ARKANSAS claims to possess more valuable hardwoods than any state in the Union. Her forests are attracting considerable attention.

A TREE was recently cut in Hemstead county, Ala., that measured 26 feet in circumference. It took six men, working constantly, half a day to fall it.

THE throne to be used at the Czar of Russia's coronation has been ordered. It is to be made of black oak, richly carved in antique Slavonic patterns, and will cost over \$8,000.

THE *Northwestern Lumberman* tells us that it is said that T. B. Walker, of Minneapolis, Minn., sends logs into Manitoba, and has them sawed there. He thus escapes the duty on sawed lumber, and makes well on the scheme.

ACORNS from America are in demand in Europe, for the propagation of oak forests. A special agent for the forestry department recently shipped 300 bushels of red oak acorns and 120 bushels of pig nuts to England and Germany, where they are to be planted next spring.

THE *Northwestern Lumberman* says that Robert Jackson and a Canada party talk of building a mill at Depere, Wis., for the purpose of sawing a quantity of Menominee pine that he owns. The logs will be towed on Green bay to Depere. They intend to saw 10,000,000 feet this year.

THE *Ottawa Citizen* says that parties down from the Kippawa say that the timber cut there this season will be considerably larger than that of the preceding year. The snowfall has been such as to render the work more easy than in general. Some forty shanties are in operation, worked by well-known Ottawa firms and jobbers.

THE floods have been doing an immense amount of damage through various sections of the country, particularly in Ohio and Pennsylvania. A recent estimate for Ohio placed the lumber carried away by overflowing streams at 25,000,000 feet, and shingles at 15,000,000. The damage has been heavy since these figures were made.

THE Hon. William H. Stiles, of Franklin county, Vt., in a recent address, stated that he was somewhat surprised at the size of spruce logs that were recently taken from land that was cleared of that kind of timber down to trees 12 inches in diameter 30 or 40 years ago. The logs now taken off are, some of them, 16 to 18 inches in diameter.

ENGLISH milling engineers are introducing square rope belts, which are said to be very suitable for transferring power. They are made in strips with "stop" joints, screwed together; the sides of the rope leaving the pulley groove without loss of power. It is stated that 1½ inch rope, at 4,000 feet a minute, has driven over 100 horse power.

THE *Wood-Worker* says:—It is predicted that the prices of walnut lumber will rule somewhat lower the coming season. The reasons for this belief are the extensive additions to facilities for cutting and transportation, in the way of new mills and tramways through heretofore inaccessible sections. Yards have full stocks of this lumber, with a dull market and weak prices.

THE Tennessee Lumber Company has built a large new mill at Cincinnati. The building is 50x100 feet, and two stories. Several railroads have access to it. A tunnel reaches from the mill to the Ohio river, by means of which logs are driven on a truck direct. The mill will be well equipped. The company has another mill at Chattanooga, and one at Hinch Mountain, Tennessee.

THE *Monetary Times* says:—It is the opinion of lumber dealers that a shortage in production is to be expected this season in the Northern Ontario district—with which may probably be included the Western Peninsula—equal to 20 per cent., under an average season's product. The excessive depth of the snow has kept operations back, and the increased cost of lumbering has deterred some operators. American buyers have not appeared in this market as yet; a feeling of uncertainty as to the pending action of Congress on the Tariff probably keeps them back. Meantime the feeling here in lumber is firm and some lines of dry are likely to be scarce.

THE St. John, N. B., *Telegraph* says:—Lumbermen in this province report that the present winter has been a most advantageous one for their operations. There is plenty of snow in the woods for hauling, while it is not over deep; the crust has not been hard and the brooks have kept well frozen, the weather having been clear, cold and steady throughout. Considerable business is being done in ship knees and futtucks, which are bringing better prices than have been obtained for many years. Most of this class of timber at present being got out, goes to the United States market, where the demand for it is very strong. The season has been very favorable for digging the roots, the frost not having gone very deep into the ground.

THE SOUTH VS. CANADA.

THE New Orleans *American Lumberman* courses as follows:—The Chicago lumber dealers represented by the Chicago Lumber Company, effected an association a few days since. They favor free lumber from Canada, and to that end they agreed upon a heartrending petition to Congress to admit lumber free from Canada. After alluding to the census statistics, which they presume are incorrect, from the fact that they believe there is enough white pine standing to supply the country for twenty-five years, they then quote the prices of lumber in 1878 and 1883, to show that the advance in the lower grades has been from 45 to 65 per cent. They continue: "The upper grades of lumber have advanced in still greater ratio, showing plainly

that unless new markets of supply be opened, lumber in the future will be a luxury only attainable by the rich, while all improvements and settlements in the new states and territories must cease."

Their panacea is free lumber from Canada, but seeing at once that this alone is an argument of no special value, they turn tail and bid for the support of their opponent in the following manner: "In fairness to the men who object to free lumber, from a feeling that it will greatly and suddenly depreciate their property in pine lands and logs, we call your attention to the fact that the entire present capacity of the saw mills of Canada is not of sufficient volume to materially lower prices, and it is not so much to lower prices as to guard against continued and ruinous advances in the price of building material, so essential to the development and progress of our country, and the total extinction of our white pine forests, with all its deplorable consequences, placing the citizens of our country at the mercy of foreigners, who control the only available white pine accessible to our country."

If this association would exhibit as much zeal in getting fair rates of freight from the South to Western points, as they do in getting lumber from Canada, they could easily find a sufficient supply of the best of lumber—which is not rated a luxury, by a good deal. Let them help to develop the forests of the South first, then they may turn their attention to Canadian interests.

KNOCK-DOWN HOUSES.

THE Bay City *Call* calls for somebody in that wood-working city to engage in the manufacture of houses in the "knock-down," and suggests particularly the probability that a good business in this direction can be done in furnishing ready-made houses for summer resorts. The suggestion is a good one. It has come to be such a fashion for people of independent means—and some whose means are not so very independent—to "resort" to the eligible sites on the shores and islands of the great lakes for a summer sojourn, that there is a great demand for light structures in which to live during the season of relaxation. Doubtless many more people than hitherto would seek a summer retirement if a handy means of obtaining a neat and comfortable pavilion were provided. A ready and sufficient supply always creates a demand greater than would otherwise exist were there no such supply. Now that the summer-resort boom has grown to such considerable proportions, it seems as if the furnishing of ready-made cottages on a large scale could be made a profitable business. The same scheme might embrace the supply of necessary light, portable furniture. Then a resorter could order his out-fit of the knock-down house factory, have it shipped to the designated locality the same as he would his trunk, and in a day or two after arrival he would be living comfortably under his own roof by the lakeside. If the scheme were once under full headway it would become very popular, and develop an important industry in the preparation of portable summer cottages.—*Northwestern Lumberman*.

UNITED STATES TIMBER LANDS.

Congressman Valentino proposes to make the woodsman spare the tree by law. He lately introduced in the house a bill, the provisions of which direct the secretary of the interior to withdraw from market the fine timber lands remaining undisposed of, which are chiefly valuable for fine timber of merchantable value. It further directs him to employ a sufficient number of examiners skilled in woodcraft to make an examination of the pine lands already surveyed, and report a full description of them, giving the quality and quantity of pine and other timber growing thereon, the distance from navigable streams and railroads, and such other matters tending to fix the value of the land. It provides that a copy of this report shall be filed at the local land office, and a copy with the secretary of the interior. It makes it a crime for any examiner to file a false report, punishable by fine and imprisonment. After the making and filing of the reports the secretary of the interior is authorized to offer the lands for sale in the manner now prescribed by

law, but the notice of sale shall contain a description by legal subdivisions, and the quality and merchantable value of the lands. The reports of the examiners are to be at all times open to inspection. Any land offered for sale and remaining unsold shall thereafter be subject to sale at private entry at their appraised value.—*Northwestern Lumberman*.

THE NIPISSING DISTRICT.

We have given at full length the reports of two of the most important surveys in the District of Nipissing, and we must be content with extracts relating to the remaining townships.

TOWNSHIP OF DUNNET.

Mr. R. A. McEvoy, P. L. S., says:—There is some valuable pine timber in the township, the best being in the central part as shown by timber map. A small area of maple was found on lots four and five, concessions four and five. The remaining green bush is balsam, spruce, tamarac, cedar birch, and poplar. On what is known as brule, a thick growth of white birch, poplar, cherry, etc., has sprung up.

TOWNSHIP OF HUGEL.

Mr. W. O. Johnston, P. L. S., says:—The greater portion of this township has been overrun by fire and the timber destroyed. Some of the north part has also been burnt again last year. The northwest corner of the township, however, is green bush and contains a considerable amount of good pine, but the other timber is not of marketable value, being mostly white birch, small spruce, balsam, tamarac, and some poplar.

TOWNSHIP OF RATTER.

Mr. F. Bolger, P. L. S., says:—The township is generally level throughout and contains little good land. The face of the country is rocky and stony, with light sandy soil, the prevailing timber being white and red pine, balsam, poplar, white birch, with scattered groves of hemlock and tamarac.

Towards the centre of township pine predominates of a merchantable quality. The westerly part of the township has been burnt over, all the timber being utterly destroyed, about one sixth of the township has thus been devastated.

TOWNSHIP OF KIRKPATRICK.

Mr. C. D. Bowman, P. L. S., says:—Nearly the whole of the township has been burnt over, there being only about eighty chains of unburnt land found along the lines run, the balance being thickly grown up with small poplars, birch, alder, etc., with occasionally the trunks of large dead pines, while in some places there was no trace of the original forest left.

There being no squatters or improvements in the township no inspection returns will be required. The whole of township with the exception of about twenty chains on the west boundary and a few chains on the front of the sixth concession, being brule, no timber plan will be necessary.

TOWNSHIP OF HAGAR.

Mr. F. Purvis, P. L. S., says:—Bush fires have destroyed nearly all the timber. The only pine, or in fact any timber worth mentioning, is on lots one and two, concessions, one, two, and three. There is a small island of timber at the junction of the northwest branch with the La Veuve River, and another in lot eight, concession five. That portion of the township lying south of the river is a brule, with scattered red and white pine, with some tamarac, balsam, and white birch, and is covered with dense undergrowth and fallen timber.

TOWNSHIP OF DRYDEN.

Mr. F. O. Bolger, P. L. S., says:—Its timber resources are very limited, the greater portion of it having been destroyed by fire. Along the northern boundary—in several instances extending over the sixth concession—some good pine exists, either in groves or in a scattered form.

The only stream calling for notice is the Wahnapitac River, which has a large and constant flow of water, admirably adapted for the driving of logs and timber, although much broken by falls and rapids.

TOWNSHIP OF WILKES.

Mr. J. W. Fitzgerald, P. L. S., says:—That part of the township lying south and east of Tea and Manitou Lakes and north concession ten can only be described in a general way, as a

tract more or less broken by ridges of hardwood and mixed green timber separated by swamp valleys in which the prevailing timber is tamarack. In the uplands where maple, beech, and birch predominate the land is stony in many places to such a degree as to render cultivation impossible.

The timber is very mixed and mainly consists of hemlock, spruce, tamarack, white birch, poplar, balsam, etc., mostly under average size. There is but little pine scattered over this part, although tamarack and spruce of fair dimensions are occasionally seen.

It may be worthy of remark here that although the country for miles north, east, south, and, I believe, west of this township, has been lumbered over for thirty years or more, not one stick has yet been cut in it for that purpose.

The township also is singularly free of fallen timber. Excepting along the north shore of Long Lake on the south boundary, and for a distance of about half a mile east of it no evidence of fire or fallen timber to any extent was met with on the survey.

SPRUCE AT LIVERPOOL.

The *Timber Trades Journal* of Feb. 10 says: Our Liverpool correspondent, referring to the article of spruce deals at his port, last week, wrote:—"The consumption for this month has been nearly four and a quarter times as great as that of last year. From this it might be inferred that the case-making and building trades were in a most flourishing condition, but he would be a bold man who would assert this to be the fact; but if we look a little further we shall find that much of this excess is attributable to the increased imports, which are 1,150 standards in excess of last January, and this has been forced by auction at low prices, in addition to the ordinary consumption through private sales." Another factor which has operated to increase the recent consumption of spruce deals, or rather to draw from Liverpool for consumption inland, was that when spruce deals were selling at over £8, as they were some three months ago, inland buyers relied as much as possible upon their stocks, and bought only what they actually required for immediate use, and which their stocks would not supply them with. Consequently, stocks inland became seriously reduced, and on the arrival of the new cargoes, which were offered at moderate figures, the opportunity for re-stocking was made use of. Whether, when stocks are made up to the average, the present rate of consumption of spruce will continue appears to be doubtful.

MIRAMICHI PINE DEALS.

The following letter appears in the *London Timber Trades Journal*:

SIR, The paragraph in a colonial contemporary directing attention to the remark which appeared in this *Journal* some time back anent the rapid decay of Miramichi pine deals when standing in the pile, has induced me to seek for the cause which produces the effect. That Miramichi deals do decay more rapidly than Quebec deals is certain. It would appear that the wood possesses constituents which encourage or provide for fermentation, for when the deals are piled with any insufficiency of air space fungus almost immediately forms. Dry rot in any case attacks Miramichi deals that are kept long in stock, and this fact makes holders always anxious to quit them.

The cause of the rapid decay is unquestionably of a chemical nature, and I should say it is the presence of vegetable acids peculiar to the material which gives to the wood this unfortunate character.

My observations, I should add, have not been made in London, for I have no experience of the wood trade there.

HEMLOCK BARK.

The *Shoe and Leather Reporter* says that the tanners of this country are periodically treated to prophetic warnings that the time is not far distant when they must seek some other tanning agent than hemlock bark, as the forests are becoming rapidly denuded. This hue and cry of short supply is not confined to bark alone. The reminders are quite as persistent that as

there has been no epidemic in South America during the past year, all must run short of nips for upper leather. Forebodings of scarcity of hides and of bark have been so often repeated that they would receive little heed now, even if there were any ground for them. The bark supply shows no sign of diminution. Dealers did for awhile scare consumers into putting up prices from \$9 to \$13 per cord in Woburn and Peabody and other tanning towns in Massachusetts, but that at the present as work in such a lively way that the tracks at the large distributing points were crowded to excess to accommodate the heavy shipments, and hundreds of cars incumber the side tracks. The market has weakened; contracts have been closed for large quantities at \$11.50 per cord, and the tendency is still downward. In the meantime, with high-priced hides and bark, and low-priced leather, the tanners are having a bad siege of it. There may come a period when bark will be a scarce article, but it is too far in the future to have any place in our present calculations.

THE ENGLISH TRADE.

Messrs. James Smith & Co's. circular says:—For the year now opening much will depend on the action of the trade on this side, as well as on the demand from the Continent, the Colonies, and the United States, all of which are now becoming very large consumers; and as the cost of production of timber is everywhere becoming enhanced, through scarcity of men, higher wages and cost of provisions, and longer distances to haul the logs, prices generally may be considered much too low, and without firmness and caution in buying and shipping no good result can be looked for this season to shippers or receivers. As regards the freight market, the class of wood vessels, usually brought into this trade is fast disappearing by loss, and is not being replaced, except by steamers, which are, so far, not so convenient and workable as sailing vessels, and the rates for which cannot be so reliably calculated, being more susceptible to severe fluctuations. There is no doubt that the various ports will soon have to meet this great change, as the present dock system is far from being applicable to steam carrying for the wood trade. Rates are slightly firmer than last spring.

HEMLOCK IN THE STATES.

The *Northwestern Lumberman* says:—There is a firm feeling that there will be a decided decline in Pennsylvania hemlock lumber this season. The facilities for getting it have never been so large as they will be this year. Railroads have been constructed recently that tap extensive hemlock forests, and will give outlets that heretofore have been closed. One thing is in favor of the manufacturers of hemlock lumber—it can be produced cheaply under favorable conditions. Stumpage can be bought very low, and the price is made still lower when the sale of the bark obtained from the trees is taken in consideration. If a man has a mill with plenty of hemlock surrounding it, and can load the lumber on cars right in his mill yard, many dollars per thousand are not required to give him a good profit. We hear of efforts to sell at from \$2 to \$3 per thousand under prices of a year ago. Possibly, however, the flood in the Susquehanna will change the aspect of things somewhat.

Breaking Up.

It has been stated in several newspapers that the camps on some of the streams were breaking up, with a probability that all work would come to a standstill. Such stories are usually very fishy, and should be so considered. A force that has been obliged to quit creates a great commotion on reaching a settlement. Because these particular men and teams are out of the woods, of course everybody else is breaking camp and will be right down. It's a rare season when there is not more or less breaking up before spring. When the hauling is hard and the expenses run up unexpectedly, it is as natural for the small jobber to get weary and fall by the wayside as for water to run down hill. Occasionally the principal will advance funds to keep the fainting man on his feet—this depends somewhat on what kind of a heart the

principal has, and how he looks at the case financially. To help the man along he may consider will be cheapest in the end. There are others who stop work, not for the lack of money, but because if they work at all they are obliged to spend too much of their time among treacherous swamps.—*Northwestern Lumberman.*

Great Tree Planting Contract.

By directions of Sir Henry Loch, K. G., Her Majesty's Commissioner of Woods and Forests, a large extent of Crown land in the Isle of Man is about to be planted with forest and ornamental trees. About 500 acres are now being so planted on the mountain called Archalagan, where cabins have been erected by the contractors for the accommodation of the men. Messrs. Little and Ballantyne, Knowsfield Nurseries, Carlisle, have been entrusted with the contract (one of the largest of the kind ever entered into in Great Britain), and already the first instalment of a quarter of a million of young trees has been shipped from the Carlisle nurseries for the work.

Spruce Gum.

The *Northwestern Lumberman* says:—The loggers of Maine are far removed from society, but they do not neglect to put in their spare minutes in a way that tends to make the ladies happy. They gather all the spruce gum they handily can. Every spruce tree is not productive of gum, but when one is felled that is, the loggers profit by it. Occasionally a live Yankee, with a stock of socks, mittens, etc., wanders up through the woods, and swaps his goods for the gum that the men may have secured. The gum in the woods brings from 30 to 45 cents a pound, and is worth \$1 in Portland. In this city it is worth, at retail, \$2 per pound.

LUMBER

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

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WHOLESALE AND RETAIL LUMBER MERCHANTS And MANUFACTURERS, 227 Dealers in WALNUT, BUTTERNUT, CHERRY, CHESTNUT, ASH, OAK, WHITEWOOD, and all kinds of Hardwood and Pine Lumber. PICTURE BACKING, HOLLY, EBONY, LIGNUM-VITÆ, RED CEDAR, &c. American and French VENEERS. Orders for Lumber and all kinds of Factory Work promptly attended to. Lumber Kiln dried to order. Yard, Cor. Wellington & Strachan Aves. FACTORY - Corner Soho and Phoebe Streets. OFFICE - 39 Adelaide Street East, (First Floor, nearly opposite the Post Office.

15 TORONTO, ONT. 17



Notice to Contractors.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Newcastle Harbour Works," will be received at this office until WEDNESDAY, the 14th MARCH, next, inclusively, for the execution of

Works at Newcastle Harbour, ONTARIO.

according to a plan and specification to be seen on application at the office of the Town Clerk, Newcastle, where printed forms of tender can be obtained. Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied and signed with their actual signatures. Each tender must be accompanied by an accepted bank cheque, made payable to the order of the Honorable the Minister of Public Works, equal to five per cent. of the amount of the tender, which will be forfeited if the party declines to enter into a contract when called on to do so, or if he fails to complete the work contracted for. If the tender be not accepted the cheque will be returned. The Department will not be bound to accept the lowest or any tender. By order, F. H. ENNIS Secretary. Department of Public Works, Ottawa, 19th Feb., 1883.

FOR SALE!

The MURRAY BAY LIMITS

COMPRISING ABOUT

330 SQUARE MILES.

These limits control the whole territory on the Murray River. The limits are very valuable, heavily timbered with Spruce and Pine, interspersed with valuable hardwoods, Poplar and White Birch. Apply to

D. C. THOMSON, QUEBEC.

MINNESOTA PINE LANDS FOR SALE.

THE SUBSCRIBER OFFERS A TRACT OF 8,000 ACRES

OF PINE LANDS, in St. Louis County, Minnesota, carefully selected and estimated to cut FORTY MILLION FEET, well located on good driving stream, tributary to Duluth.

A. MCALL,

Lumber Merchant, Simcoo, Ont.



NOTICE.

SEALED TENDERS addressed to the Superintendent General of Indian Affairs, and endorsed "Tender for Indian Supplies," will be received at this office up to noon of SATURDAY, 10th MARCH, 1883, for the delivery of the usual Indian Supplies, duty paid, in Manitoba and the North-West Territories, consisting of Flour, Bacon, Groceries, Ammunition, Twine, Oxen, Cows, Bulls, Agricultural Implements, Tools, &c. Forms of tender and full particulars relative to the Supplies required, can be had by applying to the undersigned or to the Indian Superintendent, Winnipeg. Each Tender must be accompanied by an accepted Cheque of a Canadian Bank for at least five per cent. on the amount of the tenders for Manitoba, and ten per cent. on the amount of the tenders for the North-West Territories, which will be forfeited if the party declines to enter into a contract when called upon to do so, or if he fails to do the work contracted for. If the tender be not accepted the cheque will be returned. The lowest or any tender not necessarily accepted.

[No newspaper to insert without special authority from this Department through the Queen's Printer.]

L. VANKOUGHNET,

Deputy of the Superintendent General of Indian Affairs.

Dept. of Indian Affairs, Ottawa, 30th Jan., 1883.

24

PUBLIC NOTICE

TRADE MARKS. TESTED



Granted according to Act of Parliament and Registered in England, Germany, Canada and the United States.

And Beam Engine Marks.

It having come to the knowledge of Messrs. Thomas Jowitt & Sons, of Scotia Works, Sheffield, in the County of York, Merchants and Manufacturers, that several manufacturers and merchants in Sheffield and in various parts of the Dominion of Canada, are pirating the above mentioned marks of "J" and "Beam Engine," which are the exclusive property of the said Thomas Jowitt & Sons, and which trade marks have been duly registered in the Trade Marks Registry of London, and the latter of which has been duly granted to Albert Alsop Jowitt, of the said firm of Thomas Jowitt & Sons, by the Cutlers Company of Sheffield, aforesaid, NOW NOTICE IS HEREBY GIVEN, that legal proceedings will be immediately instituted against anyone trading in Goods of Steel or of Steel and Iron combined, whether with or without a cutting edge, which Goods bear either of the above marks, unless such Goods are of the manufacture of THOMAS JOWITT & SONS. Dated this 21st day of October, 1882.

YOUNG WILSON & Co., EAST PARADE,

SHEFFIELD, ENGLAND.

Solicitors to the said

THOMAS JOWITT & SONS

STOCKS IN CLYDE PORTS.

We take from the *Timber Trades Journal* the following Comparative Table showing Import and Consumption of Timber in Clyde Ports during 1880, 1881 and 1882:—

Table with columns for Year (1880, 1881, 1882), Import (Pieces), and Consumption (Pieces) for various timber types like Yellow pine, Red pine, Oak, Elm, Ash, Birch, etc.

COMPARATIVE STATEMENT OF STOCK IN CLYDE PORTS, (GREENOCK TO GLASGOW INCLUSIVE) AT 31st DECEMBER 1880, 1881 AND 1882.

Table with columns for Year (1880, 1881, 1882) and Stock (Cub. ft.) for various timber types like Quebec waney boardwood, Quebec square, Yellow pine, etc.

prohibiting cattle, sheep, and swine from running at large in any part of the Province, unless the municipal council of any municipality shall pass a by-law authorizing their running at large within that municipality.

VII. That encouragement be given to farmers to plant timber lots of not less than ten acres on each farm of one hundred acres, and maintain the same as a timber lot, from which cattle must be faithfully excluded.

VIII. That encouragement be given to farmers to plant and maintain shade trees along the public highways and the boundary lines of farms, by granting out of the Provincial treasury, a sum of ten or twelve cents for each tree so planted and maintained in a healthy and growing condition for a period of five years, provided the municipal council of the municipality in which they are growing shall have granted a like sum.

IX. That hereafter it be a condition in all sales or grants to settlers, that not less than twenty-five acres in every hundred shall be forever kept as woodland, under penalty of forfeiture of the whole, and that the covenant be made to run with the land.

X. That scientific and practical instruction in forestry be given to the students at the Agricultural College.

XI. That a competent conservator of forests be employed, with a sufficient staff, and clothed with adequate powers to see to the proper execution of all laws relating to the cutting of timber, lighting of trees, running at large of animals, etc., etc., within the timber lands of the Province.

XII. That as soon as practicable the management of the public forests be assumed by the Government, and all timber be cut and sold, trees planted, pruned, and cared for, and all matters relating thereto be conducted under the supervision of a chief forester.

XIII. That the grounds of the several public institutions be utilized as far as practicable as experimental stations, by planting thereon timber trees that promise to be of practical value, and testing their adaption to these several localities.

XIV. That Government cause accurate maps to be made of each County, showing the area that has been cleared off, that has been destroyed by fire, and that is yet covered with timber, and indicating as far as practicable the quality of the standing timber.

XV. That a forest of acclimation be established at the Agricultural College, Guelph, in which shall be planted such forest trees of other countries as may probably become acclimated in this country, and prove to be valuable for economical or ornamental purposes.

All of which is respectfully submitted, D. W. BEADLE, WM. SAUNDERS, WM. BROWN, P. C. DEMPSEY, THOS. BEALL.

PRESERVING RAILWAY TIES

In Austria, Germany and France there are some 80 roads that use treated ties, and 33 of them have records of successful processes of treatment. The chloride of zinc method, or burnettizing, takes the preference for several reasons. Its practicability is the best establish-

ed, the objections to its use are few, and the cost is slight. When applied, it is diluted 99 per cent. Kyanizing, or the use of corrosive sublimate, a poison, is dangerous, the workmen who use it running great risks. Convicts are usually employed for the purpose. Creosoting dates back in its use to ancient Egyptian history. Creosots and cedar oil were employed for embalming mummies, and for general purposes of preservation. The common refined tar used contains one per cent of creosote. When timbers are saturated with this they are highly inflammable, but the process is not particularly dangerous to the workman. There are, in all, some 60 methods of treating timber, only a few of which have borne out a practical test. Pyroxyline of iron is used by repeated application by means of a hole in the timber, the agent dissolving itself and becoming diffused through the vascular tissues. Soaking in salt, using a solution of gas-tar, rosin and linseed oil; charring the surface to protect the body; steaming with creosote, to prevent dry rot; applying sulphate of iron and sulphate of copper, are processes that have met with more or less satisfactory results. A beech fence has already stood 26 years, with sulphate of copper. Where dampness gathered around the spikes or nails driven into the material, a chemical action resulted which induced decomposition. The expedient was adopted of dipping the spikes in tar. There are several solutions employed for petrifying, such as carbonate of lime, alum and potash, steaming with chloride of lime and diluted sulphuric acid, etc., but common or Glauber's salt seems as feasible an agent in this way as any that has been tested. In the German experience, creosote costs eight times more than chloride of zinc. There a tie is treated at a cost of 6 cents, while the Houston & Texas Central road finds its creosoting process to cost 60 cents per tie. Superheated steam is also held to weaken the wood by destroying the vascular tissues. By simply dissolving old zinc in acid, chloride of zinc can be made for about 2 1/2 cents per pound, or it is furnished in tanks at 3 1/2 cents. The patentee figures the cost of impregnating ties, with the apparatus in proper operation, at about 8 cents each. The average life of a tie is found to be about five years, while preserved ties can readily be made to last, as they have in Europe, 25 to 30 years. The Royal Railroad Company, of Hanover, Germany, has sent several specimens of burnettized timber by the patented process, as follows: Part of the middle of a pine tie which served on the road from 1852 to 1879; a piece from the centre of a beech tie which lay in the road from 1854 to 1879; a piece from the centre of an oak tie which lay in the road from 1854 to 1879; and other specimens. E. Buesch, of the Grand Ducal Railroad, and author of a German work on the subject of timber-preserving, makes some statements of the same character. He tells of pine ties lying in a road from 22 to 25 years, and when taken out, because of damage to the road, they were undisturbed so far as decomposition was concerned, being made into fence-posts and used in other ways. C. Shaler Smith, city engineer of Omaha, Neb., states that the treatment of wood diminishes its tendency to swell or contract, as observed in timbers put into a bridge at St. Louis, the amount of expansion depending on the wood used. He further says, "I used sweet gum, a wood which rots in four months and swells one inch and a half in 16, as the best wood to experiment with, as it could be had at \$10 per thousand. The bridge pavement is nearly two years old, is in first-class condition (the traffic is so great that the average life of a three-inch plank was only four months), and out of 1,800 square yards I have had to relay only 260 yards on account of hammoeking, and this on the first batch laid; with cedar, oak, pine, ash or elm there would have been no hammoeking at all. It is easily prevented by dipping the blocks in coal tar after treatment, or laying them diagonally. I laid the bridge blocks with one-fourth inch joints. Hereafter I will immerse the blocks in liquid asphalt or creosote, and without any joints at all.—Northwestern Lumberman.

GERMAN FORESTRY.

At the meeting at Cincinnati last year of the American Forestry Congress the following com-

munication from Richard Von Steuben, Royal Chief Forester of the German Empire, was read. FALKENBURGH, near Dornitzsch, District of Torgau, March 11, 1882.

MOST HONORED SIR,—I thank you most sincerely for your cordial invitation to the opening exercises of the National Forestry Association. It is, however, to my greatest regret, impossible for me to accept the same. Irrespective of all personal considerations, I am bound here by the onerous duties of my position as an officer of the King; for a trip so far and time consuming, I would have to crave leave of the Minister, which I cannot do so soon after the long leave of absence given me last fall, especially not during the planting season, when the superintending officer can least be spared.

I regret most exceedingly that I cannot attend the opening exercises, since it is certain that your Association will be productive of much good to the whole country. During my stay in the United States last fall I had occasion to discuss the question of the rapidly growing necessity of introducing a regulated Forest Government in order to prevent future calamities which must undoubtedly result from a reckless destruction of the forests. Even the Honorable Secretary of the Interior, at Washington, honored me with a consultation on the subject.

There can be no doubt that every country requires a certain quantity of well stocked woods, not only to supply the demands for building material and fuel, but more especially to secure suitable meteorological conditions, to preserve the fertility of the soil, and out of sanitary considerations. The ratio of the minimum quantity and judicious local distribution of the indispensable forest to the aggregate area cannot be expressed by a universal rule, but the same can only be approximated by scientific investigation. Above all things, it is essential to prevent forest destruction where such would injuriously affect the fertility of the soil. It is important, then to preserve and to cultivate judiciously those forests which stand at the head-waters and on the banks of the larger streams, because through their indiscriminate destruction fluctuations in the stage of water, sandbars, and inundations of arable lands are occasioned. It appears also necessary to preserve and properly cultivate woods in quicksands, or on the summits and ridges, as well as on the steep sides of mountains, along the sea coasts, and other exposed localities.

In Germany, and especially in my more narrow bounded fatherland, Prussia, it is regarded as of the greatest importance, not only to preserve the forests already there, but to extend them as much as possible.

In the National Appropriation Bill large sums are set apart for the purchase of such lands as are unfit for cultivation, and for utilizing the same by planting trees.

In the German Empire 25.7 per centum of the aggregate area is occupied by forests—that is, 13,873,065 hectares out of 53,074,041 hectares. In Prussia the percentage of wooded land is 23.4 per centum of the entire area—that is, 8,124,520 hectares out of 34,750,903 hectares. Of the Prussian forests about one-third belong to the State, to wit, 2,648,892 hectares, which produce a gross income of about fifty five million marks. The Government foresters come within the province of the Minister of Agriculture and Forests. At the head of this department is the Chief Master of the Forests; in each governmental district is the Forest Master, who serves as a member of the Governmental Commission, and the entire forest area is divided into 630 principal forest districts. Each forest district is separately valued, and for each separate part regulations are devised, which are strictly followed, thus attaining the chief object, of so regulating the annual amount of wood-cutting that a continuous gain in material and money is secured, and even increased. The forest government is devised with the minutest detail, and may well lay claim to being termed exemplary, it strives not only to utilize the forest as a source of income, but rather are the Government forests used to continually satisfy the requirements of the country.

In order to obtain a situation as Government officer of the forests, a course of study of sever-

FORESTRY REPORT.

We take the following from the report of the delegates appointed by the Ontario Commission of Agriculture to represent the Province at the meetings of the American Forestry Congress at Cincinnati and Montreal:—

The delegates, in view of the information obtained at the several meetings of the American Forestry Congress, beg leave to make the following recommendations:

I. That such of the public lands as are more suitable for the growing of timber than for agricultural purpose, be retained by Government as a part of the public domain.

II. That within this timbered tract scattered portions be leased to persons suitable to act as forest police, to protect the timber lands from trespass, guard against fires, remove fallen timber, and act under instructions.

III. That no trees shall be cut, whether pine, spruce, hemlock, or hardwood, on any of the public timber lands under fourteen inches in diameter at the stump.

IV. That no cattle, sheep, or swine be allowed to roam at large in any of the public woodlands.

V. That the lighting of fires in or near any woods from May to October, inclusive, be prohibited, under severe penalties.

VI. That a general stock law be enacted,

al years at the Forest Academy is required. After which follows about ten years' preparatory service before a definite engagement can be made, the qualifications for which must be proved by several examinations even for the minor positions in the Forestry Department; several years' apprenticeship and considerable preparatory service connected with the military service in the Hunters' Corps, and two examinations are required. Besides the real Government forests there are the forests of the Faithful Royal Veterans, Community Forests, Corporation Forests, &c.

The forests of the Faithful Royal Veterans are governed entirely according to the principles of the State Government. The State exercises a supervisory power over the other forests named, so that even as to these a regulated system of government prevails. It is otherwise with forests owned by private individual, for they are not restrained in the use of their forests, and may, according to their own judgment, clear the same, and till the soil, in short, do what they like, and yet there may be certain restrictions placed on the free use of the same as soon as danger to the common welfare is feared; those restrictions are prescribed by the law of July 5th, 1875, relative to forest protection.

This law is applicable in cases:

1. Where by reason of the sandy nature of the soil, adjoining lands, or public grounds, natural or artificial courses, are in danger of being covered with sand.

2. Where through the washing away of the soil or through the formation of cascades in open places on the ridges of hill and on hillsides, the arable lands, streets or buildings lying below are in danger of being covered with earth or stone or of being flooded; or the lands or public grounds or buildings lying above are in danger of sliding.

3. Where through the destruction of the forests along the banks of canals or natural streams riparian lands are in danger of caving, or buildings hitherto protected by the woods are in danger of iceflows.

4. Where through the destruction of forests rivers are in danger of a diminution of the stage of the water.

5. Where through the destruction of forests in open places and near the lakes, neighboring fields are seriously exposed to the detrimental influences of winds.

In the cases above mentioned, which have been copied *verbatim* from the statute book, the manner of use as well as the culture of forests may be legally ordered, in order to prevent those dangers where the dangers to be averted are considerably in excess of the damages which would result to the owner by reason of the restrictions.

Excepting the restrictions prescribed by this law, the owner may dispose of his woods as he pleases.

Finally, permit me to remark that the larceny of wood and other products of the forests is punishable according to a law of April 15, 1873.

It is evident that these Prussian regulations are not at all applicable to the United States, as circumstances are so entirely different there. Unfortunately I am not sufficiently familiar with them to venture an opinion as to judicious measures to be taken for the protection of the forests, and it would have given me great pleasure to have informed myself on the grounds and to have taken part in the deliberations.

I trust you will grant me the favor to inform me of the result of your sessions, and consider me always ready to give all desired information concerning, as well as our forest arrangements, as our usual mode of planting and cultivating trees; indeed, to give information of all kinds and at all times.

Permit me now, my dear sir, to thank you most heartily for your friendly invitation and to express my sincere regrets at my inability to accept the same. Give my kindest regards to the gentlemen of the committee. I wrote to Mr Adolph Strauch a few days before the receipt of your letter. I thank you for your friendly wishes, and return mine most heartily.

I am, with greatest respect,

RICHARD VON STEUBEN,

Royal Chief Forester,

THE GLASGOW TRADE.

The *Timber Trades Journal* of January 20, says:—Prospects of the timber trade for the year now entered upon, though not in all respects promising, are of a generally favourable character, its main support being in the great and growing activity of Clyde shipbuilding.

YELLOW PINE.—The stock of Quebec waney board-wood amounts to about the same quantity as last year's, but much of it is of 2nd quality and not easily moved at prices now required. Rates about 2s. 2d. to 2s. 8d. Of square yellow pine, the stock is light comparatively; demand is quiet meantime, its high price being a check on the consumption; other goods at cheaper prices coming into competition. The market is bare of first-class deck-plank yellow pine.

RED PINE.—Stock comparatively moderate; good wood of large dimensions saleable. Recent prices 1s. 3d. to 1s. 7d.

OAK.—The year's import of Quebec oak is about 1,200 logs over that of 1881, and the consumption shows an almost corresponding increase. As a good deal of the stock at present on hand is not of the prime quality it is not so easily moved. Prices from 2s. 6d. to 3s. 5d., varying considerably according to quality. There have been large arrivals throughout, the year: of oak-planks and scantlings from the States, per steam liners.

ELM.—Demand at present is quiet. Recent prices 1s. 8d. to 2s. The stock, it will be observed, is little more than half the quantity held a year ago.

BIRCH.—The stock on hand is unusually light. Prices have advanced considerably, especially in the latter part of the year. For Quebec wood, 15½ in. square, about 20½d. may be quoted; and for lower port about 17d. is the average rate, more or less, according to size and quality.

ASH.—The past year's import was light compared to that of the previous year, and the consumption shows a falling off, though not to the same extent. Present demand is fair; pure white wood in especial request. Prices range about 1s. 9d. to 2s. 2d.

WALNUT.—The import during 1882 from the States and Quebec is short of the previous years. Prices for good wood, medium and large sizes, range from 5s. to 5s. 6d., but drop considerably for small and inferior descriptions. The supply of walnut has not been sufficient for the wants of the market.

DEALS.—Quebec yellow pine. There is a comparatively small stock of 1st quality. Rates 2s. 3d. to 3s. 6d.; broad dimensions have brought high prices, 2nd quality are not readily sold. Prices of 3rd quality, the import of which (mostly per steamer) has been excessive, have undergone little change. Prices for 11×3 about 13½d. to 14½d., broad deals bringing a considerable advance. 4th quality, 11×3, sell at about 1s. Quebec spruce deals, 11d. to 13d.; lower port spruce, 10d. to 12d. Not many American spruce deals have been sold in the latter part of the year, the large import of deals from the Baltic coming into competition.

Alcohol and Paper From Wood.

The *Oesterreichischer Liquer Fabrikant* states that Messrs. Bochet & Machard now prepare both alcohol and paper from wood: 2,000 kilos. of wood shavings are treated in wooden vats with 8,000 kilos. of water and 800 kilos. of hydrochloric acid for 10 to 12 hours, steam being passed in the whole time, so as to keep the mass on a constant boil. When this operation is over the acid liquid is run off, neutralized with chalk, and fermented at a temperature of 24°—25° C. The ligneous residue in the vats is washed and dried and worked up for paper.

Our Neighbors' View.

The *Lumberman's Gazette* of Bay City, Michigan, thus discusses the question of the United States lumber duties:—The lumber interest is thoroughly awakened at the attack made on the prosperity of this industry, and Congress will be besieged next week with powerful delegations representing \$9,000,000 of capital and more than 1,000,000 American laborers whose prosperity is also imperilled in order to benefit Canadian industry. It will be strange if Congress refuses to deal justly with this class,

ROBERTSON'S LIGHTNING CANT-DOG

STEEL RING,

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

PETER ROBERTSON, Chaudiere - - - Ottawa.

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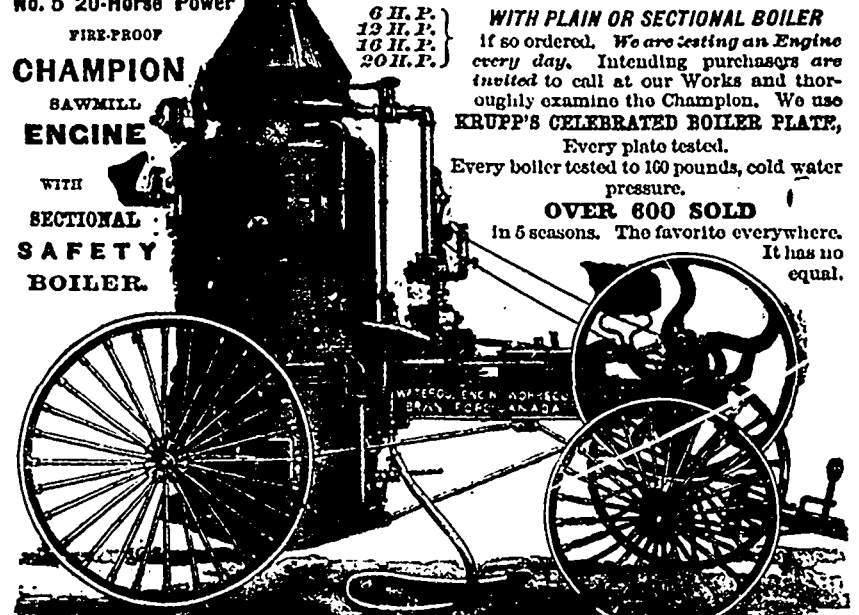
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MONTREAL.

Represents No. 5 20-Horse Power FIRE-PROOF CHAMPION SAWMILL ENGINE WITH SECTIONAL SAFETY BOILER.



Build 4 Sizes Fire-Proof Champion Engines WITH PLAIN OR SECTIONAL BOILER If so ordered. We are testing an Engine every day. Intending purchasers are invited to call at our Works and thoroughly examine the Champion. We use KRUPP'S CELEBRATED BOILER PLATE, Every plate tested. Every boiler tested to 160 pounds, cold water pressure. OVER 600 SOLD in 5 seasons. The favorite everywhere. It has no equal. The sectional safety boiler is manufactured expressly for the "North West" trade. This boiler is so arranged that it is readily taken apart in sections enabling purchasers to clean thoroughly every part of it and prevent burning out. We know from experience this is absolutely necessary with the alkaline waters of the great Western prairies. Largely used by the Pacific Railway Company and all the large Colonization and Rancho Companies. ADDRESS WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA. Send for New Circular.

Market Reports.

MONTREAL.

From Our Own Correspondent.

FEB. 25.—Although prices as a rule have kept very firm during the past two weeks, business has been very quiet, and very little lumber, and that only in a retail way, has been changing hands. Very little movement is looked for till the spring trade opens which will be about the middle of March. We have no report as to how things are progressing in the lumber regions. The weather has kept very cold and without much snow falling. We repeat our last quotations which are as follows:—

Table of lumber prices in Montreal, listing items like Pine, Spruce, Hemlock, and Shingles with their respective prices.

LIVERPOOL MARKETS.

The consumption of lumber during the month of January has been moderate. Spruce deals were sold by private bargain at £7 2s. 6d. and £7 5s., and by auction at £7 3s. 9d. to £7 5s. 3d., while some from Tetanagouche averaged only £6 17s. 6d. The stock of Canadian lumber on hand for the month of January, 1883, with comparative figures for 1882 and 1881 was as follows:

Table comparing lumber stock in Liverpool for 1881, 1882, and 1883, listing items like Quebec square pine and waxy pine.

Wholesale quotations are as follows:—Quebec square white pine 1s. 7d. @ 2s. 5d.; Quebec waxy board pine 2s. 3d. @ 2s. 5d.; St. John pine 18 inch average 1s. 10d. @ 2s. 4d.; Quebec red pine 1s. 3d. @ 1s. 5d.; Quebec oak 1st quality 2s. 10d. @ 3s. 2d. per cubic foot; 1st quality Quebec pine deals £21 @ £22 per stand; and; spruce boards £5 5s. @ £6 15s.

CORDWOOD

is entirely without any change since our last report. Stocks ample for all requirements.

Table of cordwood prices, listing items like Long Maple, Short, Long Birch, and Long Beech.

TORONTO.

From Our Own Correspondent.

FEB. 21.—Trade stands much about the same here as when I last wrote you. Owing to the continued severe weather building is at a complete stand still. The wholesale dealers, however, make no complaints; dealers from Manitoba have turned up here in formidable numbers during the past week, all seemingly in the best of spirits and evidently manifesting strong faith in the future of their adopted home, and the quantity of lumber likely to find its way there from the Georgian Bay, during the coming summer, will form no inconsiderable portion of the total manufacture in that locality. It is true some of the dealers from that western province are a trifle shy of purchasing at present prices, believing that the opening of navigation will see a fall from present values. My own impression is that in this respect they will not find their expectations realized, and, indeed, they may have to pay higher prices on the first day of May than those at present demanded; and in support of this view I would point to the extreme difficulty now being experienced both in the lumbering states of Michigan and Minnesota, as well as north of this place, owing to the great depth of snow; many operators indeed have entirely suspended work in the woods; the horses in numerous instances being entirely used up, so that it is doubtful if the total crop of logs, west of the Ottawa lumbering regions, will run up as heavy as that of last season. Lath still continues extremely scarce and to advance in price; and shingles have a slightly

downward tendency, although the latter are still quoted at the yards at figures formerly given you:

QUOTATIONS, FROM YARDS.

Table of lumber quotations from yards, listing items like Mill cull boards and cantling, with prices.

Cutting up planks to dry boards... Sound dressing stocks... Picks Am. inspection... Three uppers, Am. inspection...

B. M.

Table of lumber prices under B. M. section, listing items like 1 1/2-inch flooring and Beaded Sheeting.

ALBANY.

Quotations at the yards are as follows:—

Table of lumber quotations at Albany, listing items like Pine, Spruce, Hemlock, and Shingles.

BUFFALO.

Table of lumber prices in Buffalo, listing items like Uppers, Common, and Culls.

TONAWANDA.

Table of lumber prices in Tonawanda, listing items like Three uppers and Common.

BOSTON.

Cotton, Wool and Iron of Feb. 24, says:—The weather continues to average unfavourable for both inside and outside building operations, especially the latter. There is, however, more or less inquiry for moderate amounts of lumber for repairs, and for the most necessary operations now in progress. New business is rather backward and cautious, but there are prospects for the starting of a good average amount of fresh building enterprises as soon as the weather becomes spring-like and somewhat settled. Indeed, a number of new contracts are already offering or have been placed. John W. Leatherbos & Co. have been awarded the contract for spruce for the city of Boston the coming year at \$15.75 per thousand. Among the other new contracts in the city are a school building for the Institute of Technology; a business block for the Ames estate, on Washington street, corner of West; a large building corner of Pearl street and Atlantic avenue, and a large structure started at Hamilton place.

In soft woods there is no particular change in values, and the demand is quiet and moderate, with quite full stock at the railroad. Southern pine shows a rather better and firmer tone. The

furniture factories are starting up lively, which will improve the demand for hardwoods, which are moving steadily for desirable stock.

CANADA PINE.

Table of Canada Pine prices, listing items like Selects, Dressed, and Sheathing.

CHICAGO.

The Northwestern Lumberman of Feb. 24, says:—The lumber business at large begins to give promontory signs of the spring revival. Reports from the points of heavy supply in Michigan show that the buyers are beginning to feel around among stocks with a view to purchases. At Saginaw and Muskegon dealers begin to put in an appearance, and though transactions are not yet very numerous, the nature of the enquiries denote an intention to purchase at a not distant time. The number of the inquiries also indicate a heavy volume of trade when the season fairly opens. At Saginaw there is but slight disposition openly manifest to make concessions on anything but coarse stocks, yet little is known of the prices obtained, such transactions as have taken place being kept very quiet. At Muskegon as well as other manufacturing points in west Michigan, the holders of lumber seem to be indifferent to the general clamor about cheap lumber, and are generally holding stocks at last fall's prices. They meet enquiries with evasive answers, shrewdly concluding that questions put at this early period mean nothing more than a feeling around for information. The mill men over the lake appear to be simply holding their stocks for the spring demand, and do not mean to manifest any anxiety to sell before the demand fairly begins. It is likely, too, that considerable is hoped from the distributing trade movement that has been given a breeze at that point. The scheme at Manistee to combine in an agreement to limit the mill output, shows that the manufacturers intend to make a stand against the expected onslaught of the jobbers on prices. Other indications are at hand pointing to the same determination. Some jobbers in this city begin to doubt the future possibility of purchasing another stock very much cheaper than the one they now have on their foundations, and distrust the good policy of an over anxiety to sell what they have on hand at extremely weak prices. It is true that there is a disposition both in this city and on the Mississippi to scale down price-lists, some markets having taken that step already. The meeting that will be held by the trade in this city, February 27, will be one of great significance, for the tone then manifested in regard to prices will have a widespread effect. Though the Chicago price-list has fallen into disrepute under the influence of last year's defection in the ranks of the Exchange, and the cutting of prices that has prevailed, the markets of the Northwest still look to Chicago as the barometer of trade, for the reason that it is the heavier repository for lumber, and influences values throughout the country whatever may be the general opinion as to the integrity of the price-list. Throughout the Michigan producing region there is a present looking for indications, and in the meantime the holders of primary stocks are keeping quiet, with no disposition to force events. The whole sale trade in the Northwest is clearing its decks for the spring contest with values, and more or less concession to customers is the consequence of the jobbers desire to sell. Trade is generally picking up in Illinois, Iowa and the west of the Missouri. In Ohio and Indiana it is somewhat hindered by the break in railroads, caused by floods. In northern Wisconsin and Minnesota extreme winter weather still holds a firm grip, and trade is duller than in milder climes. At Winona, Minn., the price-list has been reduced 50 cents on common boards, from 50 cents to \$1 on scantling, and from \$1 to \$3 on timber. There is little change in the condition at the East. Trade is moderate at New York, while at Boston and New England points the indications are better, the demand having somewhat revived. A steady railroad demand at Albany is reported. Yellow pine at New York still maintains the slight improvement hitherto noted.

The demand is increasing at Toledo, Ohio. There are enquiries at all markets, indicating a lively demand early in the spring.

The virtual settlement of the lumber tariff question by the refusal of the houses of representatives to put lumber on the free list, has inspired manufacturers with more confidence than they felt when the matter in doubt. They no feel that they have a law for making a fight to maintain values, which no doubt has entered to their more recent determination to preserve a firm attitude.

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

Table of receipts and stock on hand for lumber and shingles, comparing 1883 and 1882.

Table of receipts for lumber and shingles for 1883 and 1882.

Table of stock on hand for lumber and shingles for 1883, 1882, and 1881.

Table of lumber prices, listing items like Lumber, Shingles, Lath, and Cedar posts.

OSWEGO, N. Y.

There are no changes from last quotations:—

Table of lumber prices in Oswego, N.Y., listing items like Three uppers, Pickings, and Common.

GLASGOW.

The Timber Trades Journal of Feb. 10, says: The imports of wood to Clyde ports and also to Grangemouth from abroad during the past week have been extremely limited, consisting of parcels of staves and a few walnut and maple logs, etc. So far as the year has gone the additions to stocks have been few, the only full cargoes yet arrived consisting of teak timber, of which there were three cargoes imported last month. In the absence of pitch pine imports the consumption will speedily tell on the heavy stocks shown in the annual statement to be on hand. It is understood that not many vessels are offering for freights from Pensacola.

There are no public sales to report this week. At those that have been held since the beginning of the year—five in number—a disinclination to stock was shown by dealers, they having, it is said, a difficulty in obtaining a profit off consumers meantime, especially for the better descriptions of wood goods.

The market presently for birch, walnut, and mahogany is bare, and presents a favorable opportunity to importers.

LIVERPOOL.

The Timber Trades Journal of Feb. 10, says: There is apparently a little more life in our trade, although it is still in a languid condition; but as the imports of spruce deals and pitch pine, to which the supplies of this market are confined at this time of the year, are much below those usually made, there is every indication that prices, especially of the first-mentioned goods, will advance, seeing that the quantity held on importers' account is small, and that the engagement of tonnage so far is very limited. There is as yet no movement in pitch pine timber, and the majority of the merchants here appear to be disinclined to import until the present stock is materially reduced, notwithstanding the comparatively low prices that are being asked by the shippers.

There is more enquiry for oak cut into scantling suitable for wagon work, but without any material advance in price, and we may here remark that this description of goods holds a most anomalous position in the market, since prime selected wood cut to size is being sold at considerably less than the raw material. It is

difficult to see how this position of matters can continue in its present state, but for the present it would seem that buyers have the best of the market at the prices now going.

The only auction sale during the past week was Messrs. Farnworth & Jardine's sale of mahogany, &c., which took place on Friday, the result of which was not known until too late for publication in this issue.

TYNE.

The *Timber Trades Journal* of February 10, says:—The only arrivals of sawn goods to hand during the last seven days have been a parcel of staves from New York, and some small lots per Gothoburg steamers. With regard to the former, it is of interest to note the gradually extending importation of manufactured wood goods of every description from America; not only doors, windows, &c., but staves ready to form into a barrel, and so packed that they can be immediately put together, and daily coming forward, and certain trades apparently have all they can do to hold their own in the race.

SWEDEN.

The Stockholm correspondent of the *Timber Trades Journal* says:—The rate of consumption in Great Britain is fairly satisfactory, and if exporters will but practise a policy of abstinence for a month or so, such patience will doubtless be rewarded. Sawing for the season has, it is true, commenced earlier than usual at many of the mills, but this fact is more than neutralized by the circumstance that the rivers up the country are nearly clean of logs. I have already drawn the attention of importers to the latter point, and the danger it may involve if importers' stocks of Swedish goods are allowed to run low.

The letter which you published in your last issue from Quebec is very reassuring to all those interested in north of Europe whitewood, and holds out a legitimate hope that we may expect before long to see prices of these goods approximate more nearly to those of Swedish redwood. In the controversy which has been going on for some time in your columns, those interested in the spruce trade on the west coast of England seem to me to have given too little heed to the fact that a silent but effective natural law has been more responsible than the system of credit in causing the unsatisfactory result complained of. Importers in Liverpool have paid too much for their goods under pressure of a heavy demand from the home American markets, as compared to what they have been able to obtain in the inland markets of England in competition with Baltic goods. The great increase of population and wealth, taking and likely to take place in the United States and Canada, will, in my opinion, cause the spruce trade and the trade in other cheap woods from these countries to the west coast of England to diminish in volume. The east coast ports, notably Hull and Grimby, will probably not fail to benefit by what Liverpool loses in this respect.

Kippewa.

FEB. 13.—It is probable that the cut of timber and saw logs on the Kippewa will be somewhat larger this winter than last.

The number of shanties owned by the various lumbermen is as follows: Sherman, Lord & Hurdman, 2; Bryson Bros., 1; Edwards & Co., 2; Perley & Pattes, 2; Booth & Gordon, 2; Gilmour, 4; Latour, including jobbers, 5; David Moore, including jobbers, 4; A. Grant, 8; giving a total of 30. In addition to these Mr. Grant has about 7 or 8 more on his upper limits, but all this timber will be taken down by Temiscamingue. I only consider as Kippewa shanties, those in which timber or logs are made actually on the Kippewa itself or its tributaries.

The thermometer went down to forty below zero last Saturday, the 12th Feb.

Reciprocity.

A Canadian correspondent of the *Northwestern Lumberman* says:—There is scarcely any doubt but that the removal of the American duty (it being the first inflicted, therefore it should be the first removed) would lead also to the removal of all obstructions to the free entry of American lumber to Canadian markets. My

case is summed up thus: It would be a thousand times better for the American manufacturers to agree to the termination of this duty on the condition that the Canadian government should also repeal the duty on American made lumber. This would give to them an immense market in the western Canadian provinces, and, according to their own statements, they would be as able to hold their own in the old markets as they ever have been.

BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of Jan., and for the first month of the year:—

Timber (Hewn).	Quantity Loads.	Value \$.
Russia	608	691
Sweden and Norway.....	16,872	25,050
Germany.....	3,218	13,300
United States.....	2,642	10,820
British India.....	3,322	45,208
British North America.....	3,570	16,692
Other Countries.....	34,850	42,202
Total.....	63,940	154,047
Timber (Sawn or Split, Planed or Dressed).		
Russia	4,707	12,105
Sweden and Norway	24,041	60,633
British North America.....	27,053	63,355
Other Countries.....	5,450	22,073
Total.....	61,355	158,166
Staves, (all sizes).....	2,315	15,870
Mahogany (tons).....	1,683	17,633
Total of Hewn and Sawn.....	125,295	312,213

Gleaning Pine.

A local newspaper says that two farmers within two and a half miles of Ludington, Mich., have hauled to mill this winter 100,000 feet of pine, all secured from land that had been cut over before—that is, the big operators had skinned the cream from it, and thought that what was left was of no account. But the two farmers, probably in clearing the land, picked up a little matter of 100,000 feet, which they sold for \$7.50 a thousand, or an aggregate of \$750. Probably after the great operators have "exhausted" the pine in Michigan, the farmers, small jobbers and pocket mill men will make themselves rich gleaning up the scattered pine, and furnishing the local supply for years to come. —*Northwestern Lumberman.*

Advice to Mothers.

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

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

CONSUMPTION POSITIVELY CURED.

All sufferers from this disease that are anxious to be cured should try **Dr. Milsner's Celebrated Consumption Powders.** These powders are the only preparation known that will cure consumption and all diseases of the Throat and Lungs—Indeed, so strong is our faith in them, and also to convince you that they are no humbug, we will forward to every sufferer, by mail, post paid, a **Free Trial Box.** We don't want your money until you are perfectly satisfied of their curative powers. If your life is worth saving, don't delay in giving these Powders a trial, as they will surely cure you.

Price for large box \$3.00, sent to any part of the United States or Canada, by mail, on receipt of price. Address

ASH & ROBBINS, 360 Fulton Street, Brooklyn, N. Y.

S A W M I L L S !

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.,
ST. THOMAS, ONTARIO.

Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills

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

And all other Kinds of **HARDWOOD LUMBER.**

White and Yellow Pine Lumber and Timber.

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

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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P.O. BOX 556.

T O R O N T O

HOW TO FIRE STEAM BOILERS.

Young engineers, if not some more experienced ones, will find some useful hints on a very important subject in the following article from the *Milling World*:

"By the application of a little skill and care, very unusual results may not unfrequently be attained by ingenious mechanics. This is especially the case with firing steam generators when the fuel used is salt or saw mill offal. Careless firemen fill the coal haphazard, as long as any can be got into the fire box, causing great volumes of dense, black, unconsumed smoke to issue from the stack, giving evidence to all who see it, and know anything about what is going on, that a large percentage of the fuel is being thrown broadcast into the air, not only wasting the money of the owner, and the labor of the fireman, but contaminating the atmosphere for the use and enjoyment of the public.

Nothing would seem to be to be more plain than that it is the duty of the fireman, for his own sake, if not for that of his employers, to use as little fuel and labor as possible, to do his duty a little better than any one else. To effect this, only a little care, combined with such knowledge and skill as may easily be acquired by any fireman, is necessary. In burning coal, the grates should be much nearer the bottom of the boilers than in burning saw mill offal, the fire should be much more spread out, and kept shallower, and in feeding coal the lumps should be broken up to hickory nut size, and only a small quantity thrown on at once and well spread on, so that the flames may attack it on every side and thoroughly consume all the carbon and bitumen of which ordinary coal is composed. It is of vital importance that all the air needed to thoroughly burn the fuel up should be applied under the grate as directly as possible, and as hot as it can be made. Not a little of the waste in fuel is caused by too much air passing through the furnace in various ways, all of which consume heat in unnecessary quantity. The furnace walls should be as near airtight as possible, and no useless air should be allowed access except through the proper spaces, otherwise the draught is injured and much of the fuel is wasted.

The back ends of the grate bars ought to be several inches lower than the front, that the air going up to consume the fuel may not meet with so short a curve. It is also best, in many cases, to leave the ashes banked up in the back of the ash pit and at the sides, that the air currents may be concentrated into a steady stream, carefully avoiding all eddies. The best method for each separate furnace can only be ascertained by trial and experimental tests, which the fireman must make for himself, and which he will be sure to do if he wishes to excel in his business.

A fire room should always be kept closed up tight, be kept as hot as possible, and free from cold air currents and blasts. It is very poor economy to spend labor and fuel to make steam only to condense and lose it before it is used. The boilers ought to be completely covered with an air and heat tight casing. Formerly it was supposed that the boiler would be injured if the flames had access to the steam space in the upper part above the water, but this long ago been proved to be a great mistake. Where the boilers are fired inside, mineral wool covered over the exterior flagged with wood or metal is excellent as long as it is kept dry. A boiler thus covered can be touched by the hand without any unusual or uncomfortable heat being experienced. Even in warm climates, boilers ought always to be well protected under weather proof sheds or buildings covering up perfectly tight all the rear parts, even using a bulkhead or partition just at the front, outside of which the fireman may stand if the heat is too much for him. It must stand to reason that a boiler room cannot be made too hot, or kept so, for economy and efficiency. How to do so cheapest and easiest, is the problem which both employer and operator should unite in striving to attain.

Not long ago the writer saw a portable saw at a fair, that burned only 24 lb. of coal per horse power an hour. The coal was broken up chestnut size, screened and washed, and fed into the furnace a pound at a time, being carefully

spread over the bed of glowing fuel in the fire box. No smoke could be seen issuing from the stack, and the object, that of entirely consuming the fuel, seemed to be attained. But this is not practicable in ordinary use, though it may be approximated more nearly than it is, in almost every case.

The use of steam in very minute jets in front of the fire box inside may be made to contribute largely toward heating up furnaces and consuming smoke, when intelligently and skillfully used. But when applied in excess it dampens down a fire and does much more harm than good.

Water, it is well known, is composed of two highly combustible gases, oxygen and hydrogen. When steam is injected into a very hot fire, the water of which it is composed is decomposed, or separated into these gases, which add greatly to the heat of the furnace.

These suggestions are made largely for the attention of firemen and engineers, who can readily see what a margin for improvement is before them."—*Scientific American*.

AID OF MACHINERY TO LABOR.

Labor is a natural burden upon humanity; yet it is the key which unlocks the storehouse of wealth, convenience and luxury. By the use of invented and applied machinery muscular work is greatly relieved, and results cheaply and extensively obtained. In all this, however, intelligent skill is not supplanted; but rather there is a wider field created for the same, and more and more does it come into demand as the facilities for production multiply. Man, of course, may exist as our forefathers did, living in a rude and limited way on the necessities of life, and even those secured only at the expense of oppressive toil; but as improvements are made, and varied and enlarged benefits flow therefrom, he rises in the scale of being, and the sphere of life is extended. The easy supply of wants in any direction only begets efforts in others; and as matters thus progress, instead of the demand for useful industry being diminished, there is more and more inducement to laborers to employ themselves with the exercise of every faculty.

It is a mistaken view, therefore, to imagine that there is the least tendency in the use of machinery to supersede the necessity of workmen, and take from them all opportunity to labor. Their skillful hands, discerning eyes, and intelligent brains are surely destined to find an ever widening field. Of course, the worker must not remain stationary, content to live and die an antiquated fossil, while all the world about him is changing and progressing. What he once did painfully and slowly with the hands alone he must now more abundantly accomplish through the agency of labor-saving devices and tools. Society has need of more production, and will only be satisfied with still more and more. With its prosperity and progress the laborer shares; and to-day he has more of the comforts and luxuries of life than were enjoyed by him a hundred years ago. The prejudice against improvement, and the jealousy against capital and associations in their efforts to manage and direct production in the more efficient and beneficial channels should disappear. As changes occur, old ruts should be promptly abandoned. By adjusting himself to circumstances as they are thrust upon him, there is not a man who cannot succeed and find a market for his labor far beyond his ability to supply.—*Dubuque Trade Journal*.

THE U. S. MARKETS.

Saginaw, in one sense, is the key to the lumber business in the country at large. It occupies a position midway between the prairie interior and the seaboard, and was from an early period the centre of the most important pine-producing region in the country. Though West Michigan, and its great market, Chicago, have of late years exceeded the Saginaw valley in producing and distributing capacity, the complexion of affairs at Saginaw points must still be counted on as paramountly significant of the true condition in the country at large. East and West, because of its relation to all the trade south and east, and to a certain extent to the westward. Hence it is, that when the report from Saginaw comes, as it does this week, that

never since the palmy times of 1873 was there so little inquiry for lumber as now, it must be taken as a very important statement bearing on the present condition of the lumber trade. It shows conclusively that at the present time lumber merchants in all the territory tributary to the Saginaw sources of supply have all, or nearly all, the lumber they want. The reason of this apathy about further purchases is not hard to reach—an overstock all along the line, and an uncertainty concerning the future both in respect to the volume of next season's demand and the value of lumber.

When we seek corroborative evidence bearing on the same point from other sources outside of Saginaw, there is a striking unanimity. Wholesale dealers in this market have neglected the question of future supply all winter, their anxiety to sell what they have on hand overbearing all other considerations. At Albany, Buffalo, and minor eastern points, the same quietude is observable, and Mississippi markets are dormant. Undoubtedly the exceptionally severe winter and the snow blockades have intensified the sluggish condition, but that does not really put a better face on the matter, nor inspire any hope for the immediate future. Though there is an excessive stock being carried over this winter, if the cold season had been more favorable to building operations and the movement of lumber, a larger volume would have gone into consumption, and the stocks been more reduced than will now be the case. In all the large cities the excessive and long-continued inclement weather has nearly stopped building, and has thus very seriously reduced the yard trade.

This adverse condition, added to an overstock, has put the lumber trade into even a worse shape than the most hopeless individual feared early in the winter. The possibility of it was foreshadowed by the *Lumberman*, though the brighter view was also presented of the opposite extreme. But the seasons carry with them their effects in spite of hope or fear.

There are few lumbermen sanguine enough at the present time to predict that prices in 1883 will equal those of 1882. It is now settled beyond a doubt that they will be scaled lower, but how much it remains for the opening spring to determine. As a matter of fact, values now are considerably below those prevailing last year at this time, when there was a veritable boom in demand, and prices were tending upward. The question now is as to whether they will fall materially lower, and how much, and as to where they will stop, and when become settled. In respect to these very serious matters to the trade every body at present is at sea.

Bearing on the general situation are the probabilities of the log crop and the early or late starting of the mills in the spring. The deep snows are seriously interfering with work in the woods, and it now seems likely that the output will not be as large as was first intended. This may prevent an overabundant supply, as earlier in the season seemed probable. Besides, there is a prospect of a late opening of the streams, and a consequent late coming down of the logs and starting up of the mills. Navigation may also open late. If these may be all become realities they will defer the opening of the re-supply season, so that if the demand for stock to go into consumption should be active as soon as the building season begins, the condition of oversupply may be somewhat modified. The *Lumberman* is not now making such a prediction, but only indicating what borders on the probability. In the present locked-up state of affairs this is about all that can be done.—*Northwestern Lumberman*.

Joinery for England.

The London *Timber Trades Journal* says:—With regard to the joinery trade, the business seems to be divided between the work done at home and the importations from Sweden and America, which goes on, side by side with fluctuations, America having apparently the biggest share.

Referring to a circular before us issued by a large American branch firm on this side, we observe that there has been a falling-off in the imports of ready-made doors, both from the United States and Sweden, to an extent that is corroborative of the dull trade of the past year,

and to which we made special allusion in reviewing the importations of 1882 in last week's issue.

Dye from Poplar.

The young growth of the poplar tree yields a dye which may be extracted as follows: The young twigs and branches are bruised and boiled for twenty minutes with a solution of alum (ten pounds of wood requiring one pound of alum), in three gallons of water. The solution is filtered hot and allowed to cool, and after standing some time is again filtered from a resinous deposit. On exposure to air and light it develops a rich gold color, and may be used directly for dyeing orange and yellow shades upon all classes of goods.—*Buffalo Lumber World*.

A Soap Producing Tree.

In the temperate region of Southern Chili, of which it is a native, grows a tree which promises to be an acquisition to any country where it can be acclimated. It is called the quillai tree, and belongs to the botanical family Rosacea. It grows to a large size in the ravines of the spurs of the Andes and the coast range of hills. Its value is in its bark, which contains an alkali of extraordinary saponaceous virtue, and for washing and cleansing wool or silk has no equal as a detergent which thoroughly cleanses without injury.

FORTUNATELY Valvular disease of the heart is not very common, its disturbed action may be due to indigestion, liver irregularities &c. A Stomach disturbed with wind, or indigestible food will cause pain and fluttering by crowding on the nerves of the heart. Burdock Blood Bitters will speedily remedy all such difficulties.

WORTH KNOWING.—A Fact Worth Knowing. The best household remedy known for Coughs, Colds, Bronchitis, Asthma, Whooping Cough and all throat and chest troubles tending toward Pulmonary Consumption is Hagar's Pectoral Balsam, to be procured of any druggist.

GOOD ADVICE.—If our readers will accept proffered advice, they will always keep a bottle of Hagar's Yellow Oil at hand for use in emergencies, such as Burns, Scalds, Wounds, Lameness, Croup, Chillsblains, Rheumatism and all varieties of aches, pains and inflammations. It will ever be found reliable.

Mr. THOMAS W. RACE, Editor and Proprietor of the *Mitchell Recorder*, writes that he had a prejudice against Patent Medicines, but being induced to try Burdock Blood Bitters, for Biliousness that occasioned such violent headache and distress as to often disable him from work. The medicine gave him relief, and he now speaks of it in the most favorable terms.

Health is Wealth.

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

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THE ONLY VEGETABLE CURE FOR

DYSPEPSIA,
Loss of Appetite,
Indigestion, Sour Stomach,
Habitual Costiveness,
Sick Headache and Biliousness.

Price, 25c. per bottle. Sold by all Druggists.

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EMERY and CORUNDUM WHEELS

These Wheels are

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For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

They Surpass All Other Wheels for Free Cutting and Durability.

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

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GALT.

Messrs. R. H. SMITH & CO.,
ST. CATHERINES.

JAMES ROBERTSON, ESQ.,
MONTREAL.

Messrs. JAMES ROBERTSON & CO.,
TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ.,
PETERBOROUGH,
Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON,
DESERONTO,
Lumber Merchants.

Clips.

A NEW YORK firm recently purchased fifty thousand feet of bird's eye maple timber in one of the northern Michigan counties.

The *Northwestern Lumberman* says that nearly 200,000 hop-poles have crossed the St. Lawrence from Brockville to Norristown, N. Y., this winter.

The *Emerson International* says that about 2,500,000 feet of timber will be floated down the Red River the coming season by Mr. McKay, of Morris, who has quite a force at work at his camp in Minnesota.

S. L. LANDERS, of Mt. Carmel, Ill., has made provision for his wife and children by planting 100,000 walnuts, which he expects will produce trees 15 inches in diameter in 20 years, and yield an independent fortune.

SMOKE will soon be at a premium. From 2,800,000 cubic feet of smoke given out by say 1,000 cords of wood, it is said that 12,000 pounds of acetate of lime, 200 gallons of alcohol, and 25 pounds of tar may be obtained.

PHILIP RITZ is fencing a 7,000-acre wheat field near Ritzville, W. T. There will be 12 miles of fence in all, requiring 50 car-loads of poles and cedar posts, which are being got out in the timber region of Pen d'Orielle lake.

AN Ottawa correspondent says that advances from the lumbering districts state that the winter has been a very favourable one for lumbering operations. Throughout the winter the snow always fell just in time to prevent the shanty roads getting worn.

THERE is some excitement among the Indians on Walpole Island, the report having been circulated that a recent timber sale was consummated by means of bribery. There were two bidders for the timber, and both claimed that the other party resorted to unlawful acts. Indian Agent Watson is investigating the affair.

THERE comes a muttered threatening of danger to the peace of Oka from Seminary sources. It appears that the Okas are cutting wood on the lands sold by the Seminary to the settlers, also that the Okas are in a starving condition, and that their temper is rising. Friends of the Okas say they have not heard of the threatened trouble.

The Western Union Telegraph Company has estimated the duration of telegraph poles as follows:—Cedar, 16 years; chestnut, 13; juniper, 13; spruce 7 years. Cedar, chestnut, and spruce are used in the Northern States; juniper and cypress in the Southern States, and red wood in California. Poles cut in the summer will not last as long as those cut in the winter by five years. Soil and climate, of course, making a difference with the life of poles.

The *Lumberman's Gazette* of Bay City, Michigan, says:—Senatorial action in refusing to place lumber on the free list will undoubtedly be instrumental in restoring confidence, settling values, and again opening up the avenues of business between the lumber manufacturing centres and the great eastern and western distributing points. Capitalists and laborers alike have reason to thank the Senate for this timely expression of interest in the manufacturing industries of the country.

It is understood, says the *Manistee, Mich., Democrat*, that several large lumber dealers and capitalists from the East are making effort to purchase all of the uncut pine on the Ontonagon Grant, now owned by Milwaukee capitalists. The negotiating parties are the incorporators of the American Lumber Company, who have already purchased from the Detroit, Mackinac and Marquette Railroad Company the standing pine on its entire land grant, except Mackinac county and the east part of Chippewa county.

THE making of charcoal is a considerable industry in Michigan along the line of the Flint & Pere Marquette railroad. Kilns are built of brick that will hold 40 cords of wood, and are filled twice a month. The product is shipped to Wyandotte, Detroit, Munro and Cleveland. Twenty pounds constitutes a bushel of charcoal, and a cord of wood will produce 40 bushels. Between Munro and Wayne there are 43 kilns; five at Stony Run, two at Otter lake and eight at Sears. The cost of the wood ranges from \$1.30 to \$1.75 per cord.

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FIRING WITH SAWDUST.

An engineer inquires about the prevention of smoke in using light fuels, sawdust, shaving, etc. If he has a return flue or tubular boiler, let him try a five or six inch pipe, one side drilled with 3/4-inch holes, one inch apart, the pipe long enough to reach through the side walls and be flush with the same on either end; put this in just back of the bridge wall, say one foot, and some four or six inches below it, the holes on top. This arrangement will increase the flame and heat, and decrease the smoke. With a knowledge of the size of grate and velocity of draft, the size of the pipe could be got nearly correct. It is best to have it large enough, and if too large it can be partially closed. If a sectional boiler, have the walls of the furnace built double, with a space of four inches as long as the furnace, and as high as the bottom of the boiler. Connect this space with perforated plates. Be careful not to put them in directly opposite, as the object sought is to get a thorough mixture of the flame and air. If the air enters directly opposite, the tendency is to produce a straight flame, while if the air of one side enters back or forward of the opening on the opposite side, eddies are produced, and a more thorough mixing of the air and flame. An opening to the space should also be left from the outside. If a blower is handy, it would be a good idea to connect the air space with that and thus get greater velocity; but if a blower is used, a less number of holes should be used than with natural draft. The air space should be built so it could be cleaned, as one fault of the various patent settings is the stopping of air flues, and no way to clean them; or the cracking of the same and leaving an opening for air where it is not wanted. I know of a case where a party was getting wonderful results from a popular setting, with screenings and bituminous coal or fuel, but a boiler maker being called in to do some repairs on the boiler, the air flues were found to be entirely closed, and no way of cleaning them but to tear the whole arrangement down and build over again.—*Cotton, Wool and Iron.*

The U. S. Tariff.

The *Northwestern Lumberman* says:—Since it has become evident that the pending tariff bill will not place lumber on the free list, manufacturers breathe easier. After the Senate, in committee of the whole, adopted an amendment looking to the removal of duties on rough lumber, the manufacturers felt decidedly out of mental health. They took in the entire situation—big stocks on hand, a heavy log crop, a large number of new mills, and duty-free Canada lumber. The outlook was really gloomy. But now that the squall has blown over, the manufacturers do not disguise their elation. They are now planning the next season's campaign against the bearish jobbers in good earnest. The *Lumberman* is not surprised at the outcome. It all along was of the opinion that the least danger the manufacturers had to fear was from a deluge of free Canada lumber.

MONTREAL NOTES.

The *Gazette* says:—There is still a good inquiry for the leading descriptions of hardwood for the American market, but holders are not anxious sellers, and prices keep very firm. A fair local demand is likewise experienced for both hard and soft woods at last week's prices. Advices from Ottawa state that the prospects for the output of lumber are good, and that an unprecedentedly large crop of logs will be got out. Mr. J. Poupore, Crown timber agent, Ottawa, has issued a statement of revenue accrued in 1882 classified to revenue as now divided to Quebec, Ontario and the Dominion. It is as follows:—

	Quebec.	Ontario.	Dominion.
Saw logs.....	\$ 327,378 25	\$189,769 54	None
Ground Rents	41,973 95	14,587 12	None
Booms	10,208 00	3,400 00	None
From Indian land's ground rents.....			\$ 9,109
Timber dues.....	116,298 00	3,400 00	None
Timber dues.....			79,349
Siloes and boom dues.....			\$3,000 44
T1 Quebec.....			\$ 363,315 30
T1 Ontario.....			2,043,850 76
T1 Dominion.....			83,854 93

U. S. Census Returns.

Western lumber papers insist that the census estimates of the amount of standing pine in the northwest are anything but correct, and pooh-pooh the idea that there is only a few years' supply on hand. Nevertheless, papers published in the heart of the lumber districts of Michigan daily report that certain specified mills and sections of the country have only from ten to twelve years supply. Mr. R. D. Mallet, of Luddington, Mich., was in the city during the carnival, after a trip through Mississippi. He reports that in the country contributing to Luddington, there is only enough standing pine for ten years cut at the present rate of production. Mr. Mallet is a large operator, and has travelled extensively through the forest regions of this country, and after careful examination, he has come to the conclusion that, so far as the Northwest is concerned, the census returns may be accepted as correct.—*American Lumberman.*

Prevention of Forest Fires.

QUEBEC, Feb. 24.—The following is Mr. Lynch's resolution respecting the means to be adopted for the more effectual prevention of forest fires:—"Resolved that it shall be lawful for the Commissioner of Crown Lands to employ between the 1st of April and the 1st of November, in any year, for the more effectual prevention of forest fires, such a number of men as he may deem necessary for that end, and he may, for any portion of the Province of Quebec, appoint an officer for that purpose who shall be known and designated as fire superintendent."

Hemlock Bark.

In the House of Commons on Monday, Feb. 26, in reply to Mr. Bergeron, Sir Leonard Tilley said the Government had under consideration a proposal to bring forward during the present

session some measure regarding hemlock bark, in view of the fact that the United States House of Representatives had recently adopted a bill imposing a duty of 20 per cent. on the bark.

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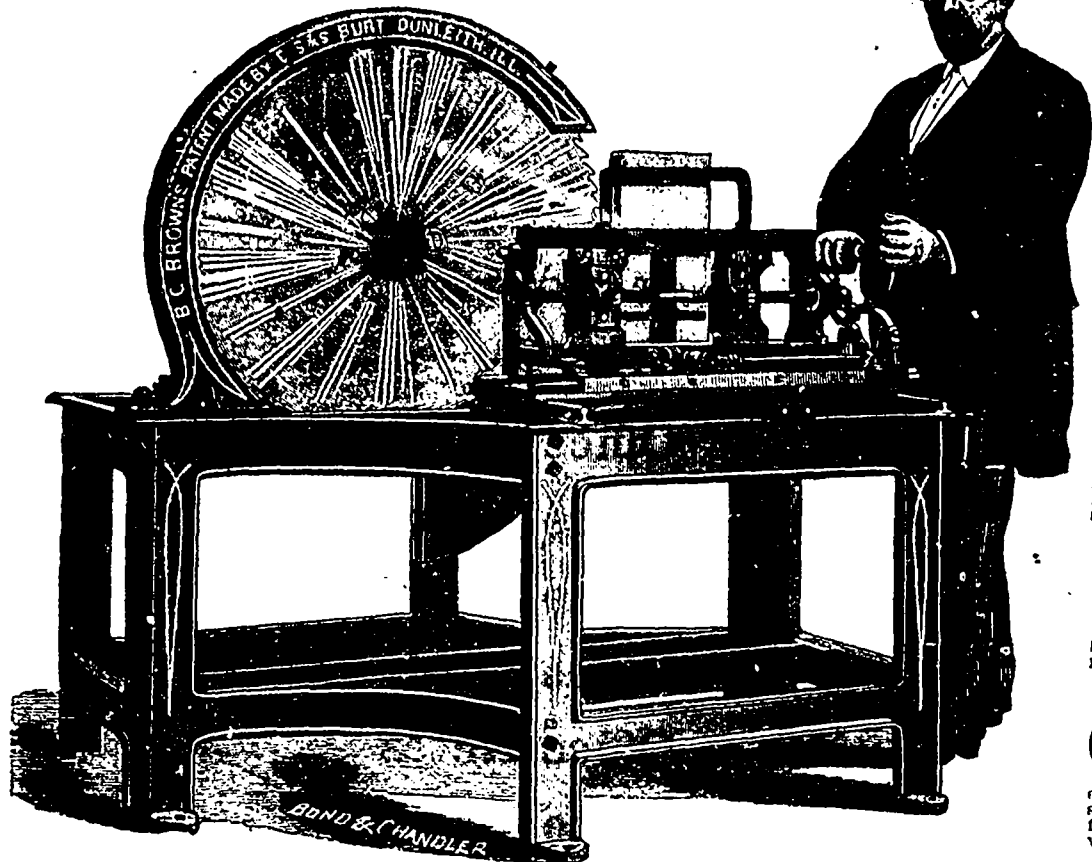
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