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THE
Wisconsin Lumberman,

DEVOTED TO THE

LUMBERING INTERESTS OF THE NORTHWEST.

NOVEMBER, 1874.

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EDITORS: E. B. NORTHROP and H. A. CHITTENDEN, Jr.

MILWAUKEE:

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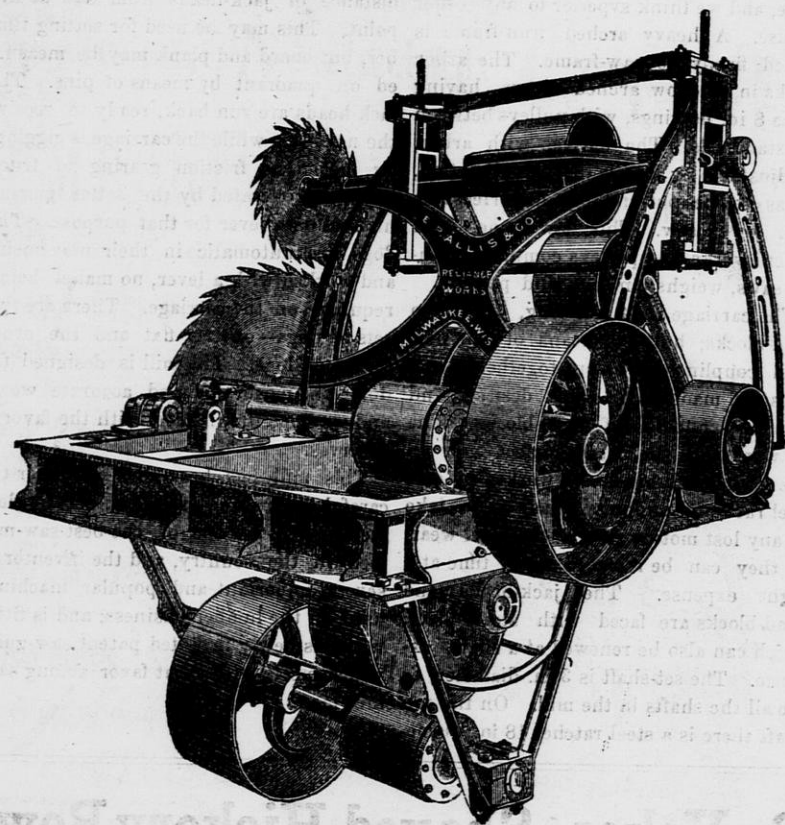
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tightner-frame and pulley hinged to frame, for tighting belt to upper arbor. The lower arbor has three 12 in. bearings, with improved self-oiling boxes. The upper works are of a new and improved style, and we think superior to any other in use. A heavy arched iron-frame is bolted firmly to saw-frame. The arbor works in a hollow arched sleeve, having three 8 in. bearings, with pulleys between the standards. The sleeve, with arbor, is adjustable by screws in every direction, so as to be put and kept in perfect line with lower saw. This saw-frame, with upper works and pulleys complete, without saws, weighs ten thousand pounds.

The carriage is 24 feet long, with two head-blocks; but by means of our new rigid coupling can be put together in sections and made any length desired, and with any number of head-blocks. The set works are the most perfect now in use. The jack-heads are worked by cast steel rack and pinion, so made as to take up any lost motion should the steel wear; or they can be replaced at any time at a slight expense. The jack-heads and head-blocks are faced with steel plate, which can also be renewed at a slight expense. The set-shaft is 3 in. diameter, as are all the shafts in the mill. On the set-shaft there is a steel ratchet 18 in. diame-

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T H E

WISCONSIN LUMBERMAN.

VOL. III.—OCTOBER, 1874.—No. 2.

WHAT WILL LUMBER BE WORTH IN 1875

The continued depression in the prices of lumber is evidence that there is too much lumber on the market. Present prices also indicate that manufacturers who operate now and are obliged to sell, before there is a material advance in prices, will do so at a loss. From the present outlook we can see no reasons for believing that lumber will advance any in price—to be worth mentioning—until there is an actual scarcity of lumber on the market. At this moment a fair demand and only a medium supply would not materially increase the price per thousand of common lumber, for the one reason that all values have touched, or are about to touch, the bottom prices, and cannot again advance until there are far greater prospects of activity in business than there are now. There must now be a marked scarcity of any commodity before that commodity can advance, to any great extent, in prices. We believe lumber will continue very low for a long time to come. One reason is that there is enough lumber now manufactured—to say nothing of this winter's and next spring's work—to supply the demand for 1875. Another reason is

that there is no prospect for a renewal of any very pronounced business activity. The farmers are going to be hard up next season; their crops were not particularly abundant; prices are extremely low and are going still lower; and they are making matters worse by paying interest on borrowed money and endeavoring to hold their crops in hopes that next spring will relieve them by increasing the values of their grains. Next spring will probably find the farming community hard pressed for money. The general business of the country is depressed as all will acknowledge, and the best opinions are to the effect that the approaching winter will be particularly distressing to all business circles. If so, the lumbermen certainly cannot hope to secure active trade and fair prices for lumber; and there are even good grounds for claiming that it will become more and more a drug in the market. There isn't probably one lumberman in five hundred that will log this winter but will be sorry next spring that he "went in." And yet the usual winter's work will undoubtedly be accomplished. There is not one single argument which justifies the belief that lumber will be at a remunerative price next season. Then why

should lumbermen operate this winter? The man who can make up his mind to be inactive one winter of his life will do well to take a rest. Be assured that you will be thanking your stars before next July if you do; and undoubtedly confounding them and your ill-luck, if you do not. Look the whole matter over carefully and see if you can discover a single argument that is calculated to prove that there will be any material advance in prices next season. There will be very nearly or quite as much logging done. There will be a general stagnation of business. The farmers will be poverty stricken, in comparison, and lumber in 1875 will be just as low and perhaps lower, if possible, then it now is.

THE APPROACHING LOGGING SEASON.

Will there be as great an amount of logging done this season as there was last, is a question just now agitating lumbermen from Maine to Minnesota. There are no reliable data to go by in framing an answer to the all important question. At the best only general statements and arguments can be used. The season thus far is favorable to a general curtailment in the amount of logging to be done; and it is to be devoutly hoped that the winter snows may not come until the season is far advanced. It is well known that the different lumbermen's conventions have endeavored to arrive at some definite conclusions and positive arrangements whereby the log crop of 1874-75 might be materially lessened; yet it is equally as well known that

no satisfactory results came from those endeavors. At the most recent convention of lumbermen, that held at Ottawa Canada, October 16, several resolutions were adopted recommending curtailments, and also that the mills should run only on half time; but they were resolutions merely, and will operate but ineffectually to produce the desired result of less logs and less lumber. Still it is probable that the agitation of the question of curtailment has operated in a great degree to the benefit of the lumbermen of the country and may be the foundation upon which private arrangements may be made in future seasons. There are really but two considerations in the question of curtailment in logging this winter. One is in relation to the ability of the logger to get money, and the other depends upon the favorableness or unfavorableness of the season.

There is undoubtedly more money in bank this season than is usual at this time of the year. Money was very plenty at the banks all through the summer and there has been so little movement of the crops that there is now much more currency left in the banks than is usual. It is too late for a very extended and general moving of the western crops this winter, and it is generally believed that money at the banks will be easily obtained for use during the winter. It is highly probable that lumbermen will obtain money this fall much more readily than they did last. The question then will really resolve itself into whether the lumbermen of the country, who have

SAGINAW AND BAY CITY SHIPMENTS.

suffered such terrible losses during the past two years, will go on in their suicidal policy and invest this winter, as usual, every cent they can borrow in logging, or will they for once exercise some little caution and endeavor, by curtailment, to advance the prices of lumber and secure at least a fair margin of profit? A farmer who would invest all his money in wheat raising when that commodity was already a drug on the market would be deemed foolish at least; yet lumbermen will continue their investments in cutting more logs and lumber in the very face of the present enormous overstock on hand in all the different lumbering localities. We confidently believe that there will be as much logging done this winter as the lumbermen of the country have means to log with. From different portions of the country we hear continually that the usual preparations for winter's work is going on. It is to be feared that there will be no general movement for any material reduction in the amount of logging. The situation is to be much regretted. It is doubtful if any remedy can be suggested for the present mania of mill men to get every log out of the woods that they have money to get out, excepting that suggested by a correspondent in the last issue of the WISCONSIN LUMBERMAN: To get such an overstock on hand as to ruin the market and all operators with it.

The statistics of the shipments of lumber from those two great points of manufacture, Saginaw and Bay City, are always studied with care by lumbermen, as affording something of an index to the general condition of the trade. We find that the shipments of lumber from the Saginaw river during the entire season up to November 1st, amount to 443,938,184 feet. In 1873, during the season up to November 1st, the same locality shipped 452,753,562 feet. In 1872, there was shipped 412,024,355 feet. It will be seen that while the shipments this year are about ten million feet less than they were in 1873, yet they amount to nearly thirty million feet more than the the shipments in 1872. This year there were shipped 68,559,500 shingles, against 38,521,400 last year and 87,204,500 in 1872.

The statistics show that during the month of October there was a heavy falling off in shipments of lumber; although the shingle trade increased over the corresponding time in 1873.

In the line of statistics that we receive from Michigan pineries the reports seem to indicate that extensive preparations are being made towards logging this winter and that in some localities the cut this season will be much larger than it was last winter. For instance, it is claimed that in the Muskegon district there will be at least 400,000,000 in logs put in, against 300,000,000 last year. Of course much will depend on the winter weather and its favorableness or unfavorableness. At present writing the winter promises to be unusually backward.

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THE CHICAGO MARKET.

EVIDENCES THAT IT IS NOW LARGELY OVER-STOCKED.

The Absurd Cry of "Shortage" from a Contemporary Exploded—Our Correspondent Vindicates Himself from A Reckless and Unfair Assault—Chicago at Least a Hundred Millions Ahead of An Average Stock for this Season—Facts for Manufacturers to Study.

CHICAGO, Nov. 4, 1874.

EDITORS WISCONSIN LUMBERMAN :—

The reference made to an article published in the *Lumberman's Gazette* of Bay City, Michigan, Sept. 19th, in my letter to the WISCONSIN LUMBERMAN written Sept. 28th is alluded to in the last issue of the *Gazette* in terms very unjust to me, charging that my letter, was written "after October developments had materially changed the prospects." Had the article fairly stated that my letter was written in September, and within one week after the arrival of the *Gazette* direct from the publisher, no allusion would now be made to the matter. I am content however, as the *Gazette* now admits that the log product in the districts tributary to the Chicago market will exceed that of former years, confirming what I claimed in my September letter. It states "by the letters of our special correspondents it will have been seen that the logging in the districts mentioned (western Michigan) will be an increase over all previous cuts."

I have no desire to advance opinions nor in any manner invade the sphere of those who furnish the lumber literature of the country, but I believe it the duty of every lumberman to question the correctness of such state-

ments as seem improbable, and that may materially affect the lumber trade; as radical errors of lumber manufacturers whether the result of incorrect information or other causes, must affect the trade many months, or years in proportion to their magnitude. Owing to the limited capital of many mill owners in the west, the winters log crop cannot be carried until the markets improve, if depressed, but it is sawed and sold without regard to the condition of the market, and principally from this cause the lumber markets are now overstocked. I disclaim any selfish motives, or any desire to criticise, the statements of the *Bay City Gazette* from the decided unfairness of the notice I have already received in it, but I believe certain statements published in its issue of October 31st if not contradicted must work great injury to the lumber producing interest, and shall risk another editorial notice by again quoting from its columns in relation to the stock of lumber at present in Chicago and the receipts of 1874. It states "as long ago as the 1st of August the *Gazette* gave the result of a personal inspection of the Chicago lumber yards and the producing districts that supply them. This inspection was made by a well informed Chicago dealer and his report has been verified and his prediction fulfilled. He estimated that the shortage of lumber in Chicago this year would be from two (2) to three (3) hundred millions of feet, and that this could not be made good from the lake Michigan district." In the same article, alluding to the stock on

hand it states "that this report astonishes the older heads in Chicago who find the stock is not compared to what it was supposed to be," and afterward adds: "It is doubtless upon calculations based upon such facts as are shown above, that the lumbermen in the west shore districts of Michigan are going into the woods for such extensive operations."

As I desire to consider only "facts" and produce figures to verify them I shall venture to question the correctness of the above statements that I believe are causing manufacturers to increase the log cut beyond all former efforts, and I believe my statements will bear the test of time, and not prove the simple opinion of "an extremist."

I will take the "facts" in order and first consider the statement of the "Chicago dealer" whose report of a shortage of 200,000,000 to 300,000,000 of feet has since August "been verified" and "fulfilled." To November 2d, 1874 the actual receipts of lumber by lake as compared to 1873, at same date are deficient 44,000,000 feet, and when the amount received by railroad is added to this amount *there is no deficit in the season's receipts to date, and from present indications when the railroad receipts of the year are added in December as is the custom always, the total receipts of the year will fully equal those of 1873.* The above statement which is correct to this date at least, readily disposes of the well informed dealers verified opinion.

The actual stock of unsold lumber in this city as compared to former years comes next in the order of

"facts" and as a manufacturer and dealer, I fail to discover any encouragement for manufacturers in this direction, and certainly cannot share the astonishment of "the older heads in Chicago." On the contrary I believe their astonishment will increase when the January inventory is taken should present receipts continue.

A careful and I believe correct inventory of lumber in Chicago taken October 1st, 1874, foots.....		858,432,582
Lake receipts from October 1 to Nov. 2.....		160,788,000
		<hr/>
		519,215,582
Shipments by railroad and canal from October 2 to November 2.....		85,214,000
Estimated city consumption from Oct. 1 to November 2.....		30,000,000
		<hr/>
		115,214,000

Leaving as stock on hand November 2d, 404,001,582 feet, showing a large increase of stock since October 1st. The ratio of increase continues, as during the week ending November 2d, 8,800,000 feet more lumber was received in Chicago than in the corresponding week in 1873, and 14,000,000 feet were added to the stock in pile less the amount consumed in the city. On the 3rd day of November the entries of lumber at the Chicago custom house were 6,668,000 feet against 2,423,000 the same day of November, 1873, and not the result of a fleet, as none arrived that day, the greater part of the lumber being large cargoes from lower lake ports.

If the manufacturers of the west, from the above showing, justify an increased production of logs they are indeed extremely hopeful. That they should know the exact condition of this market and make true comparisons it should be stated that the average stock at this port January 1st, for three years past has been

294,564,167 feet and that 300,000,000 is an ample supply any season at that date. The panic of September 1873 checked shipments to interior to that extent that the stock unsold January 1st 1874 was 327,877,742 and very much in excess of former years, but from present indications January 1st 1875, will show a still larger amount unsold.

In addition to the stock now unsold in Chicago fully 50,000,000 feet would be added had it not been forced on the dealers of the interior towns, by the persistent drumming of travelling salesmen.

Nothing but the desire of Chicago yard dealers to prevent a serious decline in the value of their stocks has sustained the market at this port during 1874. I state with a full knowledge of facts that this will not be their policy in future. There is a limit to their willingness and financial ability to carry the burthen and it has been reached.)

Manufacturers make no limit to the supply and they alone are responsible for the present condition of the market *and they know it*—and unless the receipts of the lumber at this port show a fair reduction hereafter mill owners that sell by cargo may prepare to accept low prices and extend credit on cargo sales to yard dealers and also submit to an inspection of cargoes. Saginaw and Alpena manufacturers have inaugurated the inspection and credit changes in this market already, both of which I believe correct and necessary.

The Chicago lumber market is today no exception to the principal lumber markets of the country—they

are all overstocked and will continue so until losses are sustained to compel a reduction and under existing circumstances any manufacturers who plans his winter's operations on a different theory will have cause to regret it unless he has ample means to carry his stock.

I can safely wait for time to verify or disprove the statements now made, but I believe it the duty of lumbermen in the different sections to keep others at remote points informed of the actual state of the trade, even at the risk of seeming too willing to advance opinions.

My sole object in addressing this letter to you for publication is to contradict with correct and official figures, statements that cannot but mislead many manufacturers.

In conclusion, allow me to add without intending any disrespect to correspondents, that very many statements of the condition of the lumber markets at distant points, as published in the lumber journals, have been superficial and not the whole truth. At least those relating to the Chicago market, do not accord with my daily business experience, which I find my best business guide.

A. G. V. S.

The local press in the pinery regions claims that the preparations for logging are not so extensive as usual. If there were *no* preparations made there would still be logs and lumber enough to supply the demand for the next twelve-month. But the truth is that preparations will be made, as usual, to the full extent of the financial ability of the lumbermen.

LOGS AND LUMBER.

AT TONAWANDA.

Exactly accurate reports of amount of lumber and logs now on hand at the principal manufacturing points are somewhat difficult to obtain, although approximate figures may be given. The *Northwestern Lumberman* believes the following reports are very nearly accurate as to the amount of logs and lumber at the points mentioned, up to date of October 31st:

The following statement shows the movement of lumber at Tonawanda, N. Y., for the month of October, 1874, as shown by the books at the custom house :

RECEIPTS.

	Feet.
Smith, Fassett & Co.....	10,280,000
McGraw & Co.....	3,376,000
Calvin Haines.....	1,748,000
Noyes & Reed.....	1,881,000
J. A. McDougall & Co.....	640,000
H. M. Slocum.....	534,000
E. H. Rogers.....	704,000
J. E. Potts.....	450,000
Phinney Jackson & Co.....	210,000
J. R. Edwards.....	380,000
Total.....	19,683,000

We have nothing to add to the following comments of the *Stillwater Messenger* upon the embarrassments of Mr. W. D. Washburn, one of the most extensively known, and until recently one of the most successful manufacturers in the country :

Business men, throughout the northwest, and especially lumbermen, will regret to learn that Gen. W. D. Washburn of Minneapolis has decided to make an assignment of his property for the benefit of his creditors. Mr. Washburn has been for years one of the heaviest lumbermen in the state, and has always taken an active interest in every enterprise calculated to benefit the state and the city in which he lives. In so doing he has invested more of his surplus funds than the profits arising from the depressed lumber business for the past two or three years would warrant. His liabilities will foot up about half a million, mostly to eastern capitalists. His assets, inventoried at present low rates, exceed a million dollars, so that if his creditors exercise a little leniency his embarrassment will be but temporary. At a meeting of his Minneapolis creditors representing about one-fourth of his liabilities, the feeling was unanimous in favor of extending his paper three years if necessary.

	Logs on hand.	Lumber on hand.	Total.
Grand Haven, Mich.....	6,850,000	25,000,000	31,850,000
Saugatuck, do.....	1,000,000	40,000,000	41,000,000
Grand Rapids, do.....	8,000,000	16,000,000	24,000,000
Ludington, do.....	15,000,000	40,000,000	55,000,000
Menominee, do.....	30,000,000	11,000,000	41,000,000
Alpena, do.....	33,000,000	40,000,000	73,000,000
Tawas City, do.....	30,000,000	11,000,000	41,000,000
Saginaw River, do.....	220,000,000	200,000,000	420,000,000
Big Rapids, do.....	1,500,000	23,300,000	24,800,000
Oshtemo, Wisconsin.....	20,000,000	85,500,000	105,500,000
Fond du Lac, do.....	18,000,000	35,000,000	53,000,000
Peshigo, do.....	1,500,000	1,500,000	3,000,000
Clinton, Iowa.....	30,000,000	60,000,000	90,000,000
Minneapolis, Minn.....	19,000,000	120,000,000	139,000,000

LUMBER AT BUFFALO AND TONAWANDA.

Buffalo and Tonawanda reports up to November first are very complete. During the month of October there were shipped by canal from Buffalo, 11,624,205 feet of lumber, 5,440,000 shingles and 11,813,773 staves. During the same time in 1873 there were shipped by canal from Buffalo, 14,923,116 feet of lumber, 1,932,000 shingles and 12,187,997 staves.

And since the opening of navigation to November 1st :

	1874.	1873.
Lumber feet.....	73,892,761	115,272,416
Shingles, No.....	24,646,830	5,129,993
Staves, Do.....	159,007,022	170,897,708

IS CURTAILMENT POSSIBLE ?

THE SUBJECT VIEWED FROM THE PRACTICAL SIDE.

Difficulties in the Way of a Voluntary Reduction of the Lumber Product—A Thoughtful Review of the Situation of Loggers and Manufacturers—The Little Fellows Can't Stop and the Big Fellows Won't.

DETROIT, Oct., 23, 1874.

EDITORS WISCONSIN LUMBERMAN :—

A great deal has been said and published respecting the curtailment of the production of lumber the coming season, but has it ever occurred to any one making such suggestions that curtailment is substantially *impossible*. I agree with you that it would be advisable if *possible* to do it, but can it be done ?

Here is a man who is in debt. He owes for his lands and his mill. Interest is running against him, and his deferred payments must be met, or he must go under. His reliance is upon his lumber, his logs, his standing timber. This is his whole business. He cannot borrow money on this kind of property at low rates, though it is the best of security. He must if he borrows, go to the shark, and if he does this, he had better make an assignment immediately after his first interview with that individual. He *must* cut his trees and sell his logs or saw them up and sell them. He cannot lie idle. I believe it to be a fact capable of demonstration that more than three-fourths of the lumbermen of the northwest are in *debt*. For a debtor to lie idle, means bankruptcy and ruin. He had better *try* and go down trying, than to lie still and be thus swept away.

Then there are the jobbers, they

have their houses and rigs, some of them quite expensive in their cost, and all expensive to be idle. The rig depreciates in value, and the horse eat their heads off. They must do something and logging is their trade.

Then there are the choppers and woodsmen, they have mouths to fill and backs to cover. Their trade is aiding in getting in logs. What can they do ?

One reply is let these men go to farming, or find other employment.

But the farmers are not in want of laborers during the winter months, and these men have not the capital to commence anew on farms, stock them and wait for their crops to bring them in support. They, many of them, live from hand to mouth, and must work or starve, and they can do better of course in their usual work than in any other. All kinds of employment are more than full, and they cannot expect help from such sources. The jobbers cannot sell their rigs and horses, for no one wishes to buy them now at anything like fair prices, and they may as well sacrifice on something else, as on these. As for the lumbermen themselves we are answered, that they had better sell their lands and mills and get out of debt. A good suggestion, but who will buy in these times. No one except a madman would pay anything like its full value for mill property, and if he is to lose money he may as well lose it on his lumber as on his mill. He cannot, except for the lands producing the best class of lumber, get anything like a fair equivalent for his lands. So loss threatens him if he takes that course. Nobody buys

lands now except at a sacrifice. The fact of it is all men take selfish views of whatever is presented for their action, and there are few who will sit still and be used up for the general good.

There are a few large lumbermen who have large and varied resources, who can afford to lose something for the good of the lumber interest. They are the loudest talkers in favor of curtailment. How many of them in view of the necessities of the trade are willing to stop, shut up their mills, put their rigs in their sheds, their horses on their farms, and stay still for the next twelve months? I venture to say, *not one*. They may not produce quite so much as usual, but this is not enough, I can name a dozen large concerns, which together could produce a decided impression upon the lumber market, if they would adopt this course of absolutely stopping. Taking their own arguments with reference to the necessity of curtailment, is it not their duty in view of the fact that the poorer men cannot stop to adopt this course for the general good?

They would lose nothing by it. On the contrary, their lands and standing timber would increase in value, enough to more than make up their loss and interest, &c., &c.

But I am answered that if the large mills stop there will be no sale for logs, that matter will take care of itself. The law of supply and demand will regulate that. I have no expectation that these large operators will adopt the above suggestion, and so I am bold to say that curtailment to any great extent is practically impossible.

INQUIRE.

THE WISCONSIN CENTRAL RAILROAD.

By act of congress of May 5, 1864, a grant of public lands was made to the state of Wisconsin to aid in the construction of a railroad from Portage City, Berlin, Doty's Island, or Fond du Lac to Bayfield and Superior City. The legislature in 1866 defined the line of road and chartered companies to construct it. As a result we have the Wisconsin Central railroad. The Wisconsin Central railroad now operates 320 miles of road of a character in construction and equipment unsurpassed by any road in the northwest. No one who thoughtfully considers the condition of northern Wisconsin previous to the construction of this road, the development of that country consequent on and rapidly following, or rather keeping pace with its construction, the new farming lands opened up to the settler and the pine and other timber made available to the lumberman, not to speak of the mineral wealth hitherto locked up in the forests of northern Wisconsin, and who going over the road sees and realizes the labor involved in its construction and the general excellence of the work done, will hesitate to say that here at least is a grant of lands well bestowed and fully earned. No poor settler was robbed, for the land was inaccessible previous to the building of the road and now that it is accessible alternate sections are left him for homestead settlement.

It is to be further considered (and this fact needs no demonstration, a glance at the map shows it, that this is emphatically a Wisconsin railroad—Wisconsin and especially Milwaukee are receiving and will receive the benefits of it. It builds up our state and our city as no other railroad will or can.

Northern Wisconsin comprising comprising most of the country north of township 26, contained by the census of 1870 about 35,000 inhabitants or one-thirtieth of the population of the state, its area

being nearly one-half the state. Nor was this population scattered generally over this vast area. It was nearly all contained in the lumber cities and villages. It comprised very few farmers. When work commenced at Menasha on the Wisconsin Central railroad in 1871 there was not a settler on the proposed line of the railroad between Stevens Point and Ashland on Lake Superior, nor except within a few miles of Stevens Point had a stick of timber been cut. There were thousands of acres of good farming lands but the necessary settler's supplies could reach them only by the "packer" toting his burden on his back over some trail, for roads there were none. The farming land was nearly all vacant United States land. It had not even tempted the speculator.

So much for the past. Now what do we see? At Stevens Point the Wisconsin Central railroad, left civilization and plunged into the forest. Stevens Point in 1870 had by the census 1810 inhabitants. It had two saw mills of small capacity. (Its business was and is lumber). Now it has a population of about 3,000, seven saw mills with a total capacity of 60,000,000 feet of lumber per year besides other manufactories giving employment to a large number of men. The growth is due to the building of the Wisconsin Central railroad.

From Stevens Point the railroad runs 40 miles in a northwesterly direction, and thence north over the line between ranges 1 and 2 east 61 miles. The first five or six miles out from Stevens Point the soil is sandy, thence through to Lake Superior the soil is clay loam. At Mill Creek, 14 miles from Stevens Point, in town 25, range 5 east, and Marshfield 32 miles in town 25, range 3 east, are stations surrounded by good farming lands which are being settled and improved. At Spencer, one saw mill is in operation, another will be built this year and a village is rapidly growing up—an excellent point for hard wood manufactures. At Unity ("46") is a large saw mill on the Eau Plaine river and a village of 15 to 20 houses. At ("50") is another mill with its attendant houses. At Colby there are about 40 houses, a clothes-pin and broom-handle manufactory, shingle mill and other manufactories, eight or ten stores (for the supply of the large number of settlers in the vicinity), a good hotel, a blacksmith shop, photograph gallery, etc. It has a school of about fifty scholars. New buildings are

constantly going up. Two years ago there were two shanties in Colby and no settlers in the vicinity.

At Dorchester 57 miles from Stevens Point, a saw mill is in operation and another will soon be built and a village is rapidly springing up. At "62" a mill is nearly ready for operation. At Medford, "67" a large saw mill, planing mill and sash, door and blind factory are in operation. And there is a village of 15 to 20 houses at "79" "83", and at other points where the railroad crosses drivable streams, parties are preparing to put in saw mills. At the crossing of one of these streams it is estimated that 700 to 800 millions feet of lumber will be manufactured, that being the estimated amount of pine on the stream above the crossing. This amount of pine will warrant and ensure several mills at this point. These mills draw around them settlers and villages spring up.

As to the character of the pine, it will be observed that the course of the railroad is on the divide between the Wisconsin and its tributaries on the one side and the Chippewa and Black and their tributaries on the other. Though many of the streams crossed by the railroad are drivable for miles above the crossings they have not been driven. The pine has therefore not been culled. The character of the Wisconsin river pine is well known to lumbermen. That on the line of the railroad is admitted to be better. The timber from the right of way of the railroad has been hauled over the road to Gill's Landing, taken down the Wolf river to the mills at Oshkosh, and even by rail to Fond du Lac, and notwithstanding this increased rate of handling it competes with Wolf river pine. The railroad company offer excellent inducements to millmen.

The lands of the company are in the alternate odd numbered sections for a distance of twenty miles on either side the railroad, and being thus arbitrarily selected they of course vary in character though nearly all are heavily wooded either with such hard woods as white and black (or red) oak, hard and soft maple, butternut, ash, tasselwood, beech, birch, etc., or with pine and hemlock. It is no uncommon thing to find land that will cut 15,000 feet of pine to the acre.

The railroad company has done wisely in avoiding the common course of large land and timber owners generally. It has made development its watchword. It

seeks mills and settlers. The millman desirous of locating on the line of the Central is furnished with all necessary information and with a competent guide to aid him in the examination of the pine in the various localities, generally to aid him in selecting a suitable location. A selection being made the company reserves for him the pine in the vicinity for a term of years at reasonable prices and on the most liberal term of payment, generally requiring payment only as the pine is cut.

Freights on logs and manufactured lumber are very reasonable. Pine can also be obtained of settlers and other parties at reasonable prices. The large percentage of the higher grades of lumber on the line of the Central is just now, in the low state of the lumber market, an especial attraction.

There are also excellent locations for the manufacture of agricultural implements, pails and tubs, hubs and spokes, staves, etc. The material is abundant cheap and good.

Large amounts of hemlock bark are being shipped from various points on the railroad to the tanneries of Milwaukee, Chicago and elsewhere. The supply is inexhaustible and at present prices there is unquestionably a good profit in this business. In short, northern Wisconsin abounds in undeveloped wealth. Fortunes are made there, and numbers are seeking their fortunes there. We are informed that almost every train that leaves Stevens Point for the "end of the track" takes some enterprising mill man in search of a mill site, not to mention the pine land hunters and settlers. But northern Wisconsin not only offers to the manufacturer and speculator an ample return for capital invested, but it offers superior inducements to the poor man seeking a home. He may secure land under the homestead laws, which offer to every man a home at the sale cost (except the land office fees) of a residence on and improvement of the land. Or he may purchase of the railroad company, which unlike many land grant companies sees that its true interest lies in securing settlers—thus increasing the business of its road—enhancing the value of its unsold lands. Hence it offers its lands at low prices to actual settlers and on easy terms of payment. Good lands within easy reach of a station can be bought at from \$2 to \$10 per acre, according to location and character. All necessary information

is given to parties desirous of examining and selecting, a guide being furnished when necessary. Building material costs only the labor of cutting and handling, and the log house of the settler can be made as comfortable as any frame house. His fuel and fencing are ready to his hand and inexhaustible. We would not, however, recommend any one to settle in northern Wisconsin who is not prepared for hard work. The land is heavily timbered—the labor of clearing is considerable. But besides the advantages of cheap building material, fencing and fuel, he has this advantage over the settler on the prairie. The mills now in operation and the large number of others in course of construction, and to be constructed, with the logging operations, will furnish him employment at any time. Besides, which, the hemlock bark, hard woods and pine (if any) from his own land, will find a ready market. He may gather a crop before he plants.

The soil, as we have said, is a clay loam. That it is productive the following actual results will show. And it must be remembered that in the figures of area given much unproductive land is included. The land is hardly cleared more than enough to allow the access of the sun. The stumps and many of the logs are still on the ground.

One settler near Dorchester has raised this last season 454 bushels of potatoes on two acres of ground from 13 bushels of seed, and they were of the finest quality. The same party from a little less than one quarter acre has raised 21 bushels of ears of good corn (yellow flint). Another raised 119 bushels of rutabagas from three-fourths of an acre. Another clearing yielded three tons per acre of timothy hay. Another 100 bushels "Dent" corn (ears) per acre. Garden vegetables, cabbages, tomatoes, onions, melons, &c, yield well.

As to fruit it is too early to decide, but it is believed that the country is well adapted to northern fruits. Grape vines planted a year ago this fall show a fine growth and in some instances have fruited. Apple trees look thrifty. None old enough to bear.

As to the length of the season. One settler planted his corn among the logs of his clearing on the 10th of June and long before the first frost harvested about 80 bushels (ears) to the acre.

In so new a country agricultural statistics must be meagre, but the above will

show that northern Wisconsin is neither barren nor unfruitful.

The country is well watered. Indeed it is a country of streams as a glance at the map will show.

Of the character of the country along the thirty miles of railroad running south from Ashland, we have not time to speak, nor of the mineral wealth of the Penoka range. We may say, however, that results obtained from farms in the Bad River Reservation warrant the statement that the "bottom" or "interval" lands of Ashland county are unsurpassed in the west. We candidly believe that no part of the west offers such inducements for the employment of capital, either in manufactures or speculation, as the line of the Wisconsin Central railway. We are glad to know that the people of Milwaukee are coming to realize the importance to their city of the development of northern Wisconsin, and the early completion of the Wisconsin Central railroad to Lake Superior and a connection with the Northern Pacific railroad.

AMOUNT OF LUMBER IN CHICAGO.

The Secretary of the Chicago Lumbermen's Board of Trade has made his report of the amount of lumber on hand in Chicago up to date of Oct. 1st. The statistics compare very nearly with the amounts at Chicago one year ago and are as follows, by actual measurement :

Sawed Pine Lumber and Timber.....	358,432,582 feet.
Pickets.....	1,703,028 "
Lath.....	40,985,958 pcs.
Cedar Posts.....	280,598 "
Shingles.....	49,248 M.

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PRESERVATION OF TIMBER BY THE "BETHEL CREOSOTING PROCESS."

Creosoting, as applied to timber, consists in impregnating the wood throughout with oil of tar and other bituminous matters containing creosote. The effect produced is that of perfectly coagulating the albumen in the sap, thus preventing its putrefaction. But for wood that is much exposed to the weather, and that is alternately wet and dry, the mere coagulation of the sap is not sufficient; for although the albumen contained in the sap of the wood is the most liable and the first to putrefy, yet the ligneous fibre itself, after it has been deprived of all sap, will, when it is exposed in a warm, damp situation, rot and crumble into dust. To preserve wood therefore that will be much exposed to the weather, it is not only necessary that the sap should be coagulated, but that the fibres should be protected from moisture, which is effectually done by this process.

The process in brief is as follows : The lumber to be treated is loaded upon strongly made, low trucked cars, chained down, and is then run into large wrought iron cylinders (usually about six feet in diameter, by about 75 feet in length, and capable of holding 13,000 to 14,000 feet of lumber) the doors closed and firmly secured by numerous heavy bolts fastened to the edge of the cylinder head; a vacuum is then obtained by an air pump worked by an engine of about twenty horse power, the effect being to draw out all the air and superabundant moisture contained in the pores of the wood. In

about an hour after the formation of the vacuum, the pipe connecting between the cylinder and the oil, which is contained in subterranean tanks, is opened by a valve, and the oil rushes up to fill the vacuum in the cylinder above. An average pressure of about 150 pounds per square inch is then obtained by the use of a powerful hydrostatic pump, and continued until the requisite quantity of oil is forced into the pores of the wood. From six to seven pounds per cubic foot is a sufficient absorption for timber used in railroads and other constructions on land, while from eight to nine pounds are used in marine works.

The proofs of the efficacy of the Bethel creosoting process, both in its application to timber exposed to wet and dry rot, as well as to wood subject to the ravages of the *teredo navalis*, or naval worm are very numerous, and a mere enumeration of the different railroads and dock companies who unqualifiedly indorse this process would transcend the limit of space which we can accord to our discussion of this subject. The use of creosoted wood for telegraph poles, railroad ties, depot platforms, bridge timber and piling, is, in England, Scotland, France, Germany and Belgium the rule, and the use of uncreosoted wood the exception. This the writer knows from personal observation having spent several months in these countries on business connected with the lumber trade. The process was patented in 1838 by Sir John Bethel, whose sons still continue the business in London, and the time elapsing from that date to the present has been ample to settle the

question of the utility of the process.

Lumber has been until the last few years so cheap in America as compared with Europe, that the inducement to construct works adapted to the preservation of lumber has been in a great measure wanting—but the steady increase in price of late years, together with the rapid diminution of our forests render some artificial aid to the prolongation of the life of wood a necessity.

The U. S. government has adopted this method of treatment within the last year in the construction of gun beds used in the ports of New York and the south, and has recently issued specifications requiring piles and timber to be creosoted in the construction of a channel dyke in New York harbor, work on the same to be commenced during the coming month, under the able superintendence of Major General John Newton.

We must say in conclusion that an experience (European) so thorough and exhaustive, with results so satisfactory, should be accepted as conclusive, and that we should wait for no further experiments here, to convince us of the economy, as well as practicability of preserving our timber by the use of creosote oil.

SAW MILL WANTED.

Mr. J. C. Hovey, of Black River Falls, Wis., uses the WISCONSIN LUMBERMAN (See page 181) to inquire for a saw mill which he wishes to hire upon either a commission on the lumber that may be cut or a fixed annual price. Those who may be concerned will please note the fact.

IMPORTANT TO MANUFACTURERS. *To the Lumber Manufacturers of the Northwest:*

CHICAGO DEALERS OFFER INFORMATION DESIGNED TO REDUCE THE PRODUCT.

Disastrous Results of Over-Production Pointed Out—Unless Manufacturers Curtail they Will Surely Cripple their Best Market—By Establishing the Credit System on Cargo Sales and Driving a Large Amount of Capital Out of the Yard Business.

CHICAGO, Nov. 3, 1874.

EDITORS WISCONSIN LUMBERMAN :—
Enclosed I hand you a circular now being widely distributed among lumber manufacturers, with the hope that its warning may check the foolish preparations now being made to overstock the lumber markets of 1875. One year ago the impression became general that a small stock of logs would be hauled and we all know the result. Now a grand rush is being made for logs, which the present condition and future prospects of the markets do not warrant, and manufacturers will bring upon themselves evils that cannot readily be removed. As the circular states, the greatest evil likely to come from excessive manufacture will be the inauguration in Chicago of the credit system on cargo lumber which to date has not been the custom of this market, although to a large extent, adopted in all other large lumber markets. The next greatest injury to mill owners will be the withdrawal of capital now only invested in lumber yards, and not owning mill property. These two great changes must occur if too much lumber is forced on the market of 1875, and prices of lumber must decline to a lower scale.

The circular is as follows :

The lumber dealers who conduct the yard business of Chicago have learned from the most reliable sources, with regret, that the arrangement of mill-owners for hauling logs the coming winter show a large increase as compared to the too large manufacture of 1874, at several if not all the principal producing sections ; and as we believe nothing but a want of knowledge of the present condition of the market at the principal distributing points would prompt an increase when only a large reduction of manufacture will prevent great loss to all classes of lumber men.

Any combination that could be formed to reduce manufacture would surely fail for lack of unanimity, and would in the end produce the evil it was created to prevent, but the desired result may be produced by informing manufacturers in advance of the proposed supply at the principal districts, and thus appeal to their better judgment as well as their financial interests, and thereby cause a voluntary reduction from plans already made for hauling logs during the approaching winter.

The average annual receipts of pine lumber at the port of Chicago, for three years past, exceeds 1,000,000,000 feet, and of this vast amount more than half is received and paid for when landed, by lumber dealers who own no saw mills. In other words the yard interest pays annually in cash on delivery here to mill owners, who have no docks in Chicago, the large sum of six million of dollars for lumber, and an additional sum of

two million dollars for shingles, lath and other lumber products. The mills that saw lumber for the "Lumber Exchange," cargo market, for sale afloat, depend wholly on yard dealers to furnish money to operate their mills in summer and repay advances received from commission firms during winter. The course pursued by these mill owners during the present season of 1874 would in almost any other branch of business have brought ruin to the parties who furnished their working capital, and owing to their large manufacture have caused a declining market during the entire season and an average depreciation of 10 per cent. in the value of stocks in pile.

If during 1875 an amount of lumber exceeding 900,000,000 feet is consigned to this market, yard prices must, we fear, decline below the lowest prices of the present year at retail, and a discount in proportion in the value of all stocks of lumber here will be the result, and 1876 will find the number of yard dealers reduced one-half, as they must seek other fields of investment for their capital as their predecessors did in 1858.

The shrinkage of values by overproduction will, if continued, drive many yard dealers from trade, but the same cause is responsible for a greater evil that promises to reduce the number of mill owners also during 1876. Previous to 1865 credit was seldom asked or given on lumber at wholesale, and returns were expected inside thirty days for yard sales; now an average of more than sixty days' credit is given on yard business if any profit is realized.

This is the legitimate result of forcing sales on a market already overstocked, and one that mill owners are wholly responsible for, and, if continued, yard dealers will claim and be enabled to compel a credit on all cargo lumber sold afloat in Chicago. So great is the desire of manufacturers at Lake Huron ports to dispose of the present surplus, that lumbermen with good credit can now buy any amount of cargo lumber of them on ninety days' credit, and in some instances four months, and without interest. From present indications a change from cash to credit for cargoes in this market is expected hereafter, as, with the exception of the Chicago Exchange sales, lumber at wholesale is usually sold on credit. This change effected, no combination of mill owners will be required to limit the supply hereafter.

For the following good reasons all prudent mill owners will reduce rather than increase their business until the surplus lumber now in market is much reduced:

FIRST.—That during the season of 1874 no profit has been realized, and from excessive manufacture the markets of the country are now largely overstocked, with no prospect for a permanent advance in prices.

SECOND.—That the inauguration of sales of cargoes on credit by manufacturers during 1874 will in the event of an excessive manufacture soon become the custom of the market.

THIRD.—That a further shrinkage in the value of lumber will cause the withdrawal of large amounts of capital now furnished by yard dealers, a

class that pay for and distribute more than half the entire product of saw mills.

FOURTH.—That all concede that a large amount of lumber forced on the market in 1875 must cause a lower range of prices, and a reduction in manufacture, either small or great, will place the lumber business of the country on a better foundation.

Yours,

OCCASIONAL.

NOTES FROM BROWN COUNTY.

The Pineries Gone—Not More Than A Year's Cut Left—The Mills Moving to the Line of the Wisconsin Central.

BROWN Co., Wis., Nov. 1, 1874.

Editors Wisconsin Lumberman:—

Mill men are already planning for the winter's campaign of logging among the scanty pine trees which still hold out a feeble resistance, and the indications now are that an average stock will be got out.

Strange as it may seem the pineries of Brown county are gone. They have vanished in shingle and lumber before the small army of lumbermen who for years past have besieged them. Ten years ago it would seem that a quarter century would have been too short a time in which to have subdued them. But, alas, in less than a decade they have been shorn of their wealth and beauty and only straggling relics of their former greatness and richness remain.

Geo. R. Cook, at Lilly Lake, Eaton, has barely pine enough for another year's stock. N. C. Foster in Pittsford may hold out a year—not more. Oscar Gray of the same place, having seen the end from the beginning,

and dreaming of a short year's stock, has fixed his eyes on the waving pines which gather thick and large along the Wisconsin Central railroad.

The Monroe Bros. may squeeze through a twelve-month, by using good and bad logs. But they do not hope for much more. They too are thinking of moving north to more hospitable pine climes. Weed & Co. at Suamico may hold out two years longer, when they with the rest of the lumber flock must move north.

Lamb, Watson & Co. are nearly out of pine land. A year or two must suffice to finish the cut here.

Tremble & Co., Suamico, have the largest lot of pine in the country, but two or three years will no doubt find them out of logs and looking for a new site and other fields to conquer.

Ben. Smith of Depere, is reported to have a year or two cut. Beside these, there are two or three other small mills which have only a precarious existence and cannot hold out long.

M. P. LINDSLEY.

GREEN BAY, Nov. 9, 1874.

A UNFAIR TRICK.

Our esteemed correspondent, "A. G. V. S.," was very unfairly assailed by one of our cotemporaries. The last number of the WISCONSIN LUMBERMAN was somewhat behind its usual date of publication (the 15th), but our correspondence bore the date on which it was written, so that there was not even an apparent basis for the insinuation that it was written "in the light of October developments." However, as "A. G. V. S." seems amply able to take care of himself, we resign his assailant to his tender mercies, inviting the attention of manufacturers to his demonstration of the extent to which the Chicago market is thus early in the season overstocked.

THE CINCINNATI SAW TESTS.

The Mistakes and Failures of the Manufacturers—Results of their Efforts To Do Too Much—Unpractical Nature of the Tests—Interesting Tabulated Results.

We sum up the work in the annexed table which will be found of interest to all who are desirous of investigating the subject of lumber manufacture, for while it is notoriously patent that so far as the practical manufacturer of lumber is concerned, a crowded Industrial Exposition is far from being a favorable place, we can assure our readers that the test is far from being barren of results. On the side of the ludicrous, to a Saginaw man was the spectacle of a lot of men engaged in the manufacture of one of the nicest pieces of machinery used in the business, bringing their saws to a practical test under circumstances which prove them but the veriest tyros in the practical use of the tool. Such wood butchery was never witnessed on the continent. Not a man among them had the least idea of the condition under which his saw was to be tried. The speed of the engine, of saw, or the feed, were not taken into consideration in preparing the saws. Every man clamored for the 6 inch feed, until the first test developed its futility. What a face was then displayed, when half of them dropped from the 6 to 2½ inch and the rest to 3¾, and all decided that the theory of lumber making was different from the practical demonstration. As saw makers we would pay them the compliment of having exhibited a superior lot of tools, but for a practical knowledge of the conditions requisite to their successful use, they have much to learn.

Why did they fail so miserably? you ask. Well, we can but give our own judgment, at the risk of incur-

ring their displeasure. 1st. They are trying to make light gang saws run at a higher speed and on a larger feed in tough, stringy timber, than manufacturers of soft pine find to be practicable or profitable with heavy gangs. 2d. They were unfortunate in their selection of men to put their saws in order for the test, and Mr. Emerson would have failed with all his saws as badly as he did with his clipper tooth and planer, both of which are good saws, had he not personally known how to put his solid tooth saw in order, and done it. The men who filed the saws enjoy a first class reputation in their home localities, but some one had blundered in sending a right hand saw to be tested in a left hand mill. The Hoe saws are "as good as they make them," yet with the exception of the new planer tooth, proved a failure. The same may be said of all the saws exhibited, first-class tools in the hands of first-class sawyers, and under proper conditions of speed and feed. Instead of this test proving a detriment to the makers, all these disadvantages should be considered. The conditions and surroundings of the test were against them. One poplar and one oak log were all they could have here, not enough to make the test practical, and this fact was recognized by all. It is to be hoped that such a test may yet be undertaken in the Saginaw Valley, and such a proposition was warmly met by the contestants. Some objections were made to the condition of the mill, but the success of Mr. Emerson, who in gaining the prize of \$100 in gold, as well as in a successful contest for the silver medal which took place on Monday afternoon, demonstrated that in sawing 52 boards of oak and poplar, he could make them all nice and true, except the outside boards in squaring up the logs, is sufficient answer to this objection. The trouble was not in the mill but the manner in which the saws were put in order, combined

with too high speed of arbor, or thin gauge saws. In saying this, however, let us remark that the lever was handled by Mr. S. R. Smith, of the firm of Lane & Bodley, who fairly won the high compliment paid him in the resolutions adopted unanimously by the saw men after the contest.

Resolved, That we, the saw manufacturers, contestants in this, the first trial of circular saws, do tender our thanks to Messrs. Lane & Bodley, for the use of their mammoth circular saw mill.

We acknowledge in the person of Mr. S. R. Smith a fair and impartial gentleman, who discharged the difficult and delicate duty of running the mill for different competitors to our entire satisfaction.

We also tender our thanks to Mr. A. G. Harrison, for the disinterested and satisfactory manner in which he acted as setter.

To the judges, and all concerned with the direction of this trial, we desire to place on record the fullest expression of our confidence in their fairness and impartiality.

Mr. Smith is a good sawyer and a gentleman, and yet he will take it as no disparagement if we suggest that few Saginaw sawyers would have made from 10 to 15 seconds better time by not gigging back two to four feet after passing the saw.

We were disappointed in the character of the timber sawed, having supposed that poplar (whitewood as it is called east) was soft as pine. It is tough and stringy, and at times displays the characteristics of a bag of cotton. The oak, on the contrary, was much softer than we were accustomed to, and sawed much easier than Michigan Norway of the more favorable sort.

To students of the table connected herewith, it will be a matter of surprise that the indicated horse power ranges so high (allowance should be made, however, for the fact that the calculations given are based upon

the engine's speed of 200, as indicated running light, the saws would naturally check somewhat and an allowance of about 20 per cent. should be made for this, to obtain actual horse power. Tests were subsequently taken to determine this point, resulting in reducing the figures to about this per cent. We regret not being able to lay the revised table before our readers at this time. It has, however, no great bearing on the principle involved as it is but the practical experience of all mills, and the same loss of power will be experienced whenever the power is not fully abundant to maintain the speed in the cut,) and to mill machinery manufacturers and users will be prolific in suggestions. The power indicator is a very highly finished and nicely adjusted instrument, and in the hands of Mr. C. Bauer, mechanical engineer of the Lane & Bodley house, to whom we are deeply indebted for courtesies, was rapidly and correctly handled and the results obtained may be relied upon. This letter has become so lengthy that I will close with a promise of a continuance hereafter. I cannot, however promise a detailed report of all the excellencies of this most successful exposition, but as time and opportunity permit, propose to speak of some of the most notable articles exhibited. The impossibility of fully particularizing will be appreciated when I say that after spending twelve busy days within the walls of the exposition, visiting as I supposed every part of it, on the evening of the twelfth day I blundered into a department fully 50 by 300 feet in extent which I had not before discovered. Power Hall has been the centre of interest to me, and to it will my notes be confined. At the time of closing this letter the award of the \$100 gold prize has not been announced, although it is not to be doubted that Emerson, Ford & Co., will receive it, their solid saw having done the best work by far.

WAUSAU

BY W. G. BROWN.

From the Wisconsin River Pilot.

Don't you remember the time, Jim,
When you and I were young,
And roamed by the old Wisconsin's streams,
And some foolish love song sung?—
I'm sitting again on the rock, Jim,
With the foaming waves below,
The very rock where we sat and sung
In the days of long ago.

What do I see around me, Jim?
A forest of buildings new,
A thousand dwellings with turret and tower
Where the pine and the hemlock grew.
The trees still stand on the sloping hills;
But in all the vale below
Nothing is left but the rocks, and the roar
Of the waves of long ago.

And day and night the shining steel
Laughs over the clefted trees,
Whose white shards gem the prairie land
E'en down to the southern seas.
Water and steel and a stalwart hand
And brain in every blow—
What is the world to-day, Jim,
To the world of long ago!

I stand on the island rock, Jim,
And list to the hammer fall;
I gaze on cottage, and lofty dome,
And the church spire over all.
The river lords have been here, Jim,
You may trace their steps as they go,
Cities and towns their monuments
When they and we lie low.

The tide is now setting in, Jim,
Rolling west with the setting sun,
The Rhine and the wild Wisconsin
Are mingling together in one.
When Briton and Teuton join, Jim,
The tall, dark woods fall back,
The desert blooms, and the iron horse
Comes thundering on its track.

Our locks are growing gray, Jim,
Soon we roam with the spirit band,
But on this spot will a city rise,
The pride of the northern land.
A hundred miles of the choicest pine,
A soil of the richest mould,
Steam and waves and muscle and brain
To change them into gold.

Flow on, swift stream, to the Mississipp';
There is not in all thy course
A livelier city, a lovelier town,
From the rivers' mouth to its source.
God bless her living pioneers,
Strew flowers o'er her sleeper's low;—
Keep step to the march of the world, Jim,
Good-bye to the long ago!

Wausau, October, 1874.

We are indebted to our enterprising Chicago contemporary the *Northwestern Lumberman*, for the handsomely arranged table presented upon the two following pages. One of the pleasant features of the literature of the lumber trade is the material assistance which the special organ of each locality or department is enabled to render all the rest. We are not ashamed to own our obligations to our literary associates in the lumber trade.

CONTESTANTS.

Contestant	Kind of wood.	Revo'tns Engine.	Diam. of Saws.	Revo'tns per min.	No. of T'h	Eye.	Teeth.	Kerf.	Cut per Teeth.	Size of log	No. of b'ds	Time.	Square ft. of lumbr.	Horse Power Indic'd	Pressure on St'm Pipe.	Feed.	P'rct b'ds Imperfect	Square ft lumbr per minute.	Gen'l per centage of power	Per ct. of power used.	Av. pressure on piston.
2. E. Andrews	Poplar	108	66	648	40	5	7	3/00	1	20x60	16	2.3	300	95	48	3%	10	106	7435	705	43
1. Hogan & Sowden	Oak	170	66	660	40	5	7	3/08	1	18x16	12	2.0	176	111	98	2%	12	104	7435	705	43
3. I. W. Badridge & Co.	Poplar	154	66	600	42	6	11	7/00	2	20x20	16	2.5	300	100	68	2%	14	84	582	69	40
4. American Saw Co.	Oak	157	66	640	48	8	9	4/08	2	20x20	16	2.5	300	90	23	2%	14	104	7705	683	38
5. Emerson Saw Co.	Poplar	152	66	630	40	6	8	3/08	1	18x16	12	2.2	176	118	62	3%	8	86	6505	608	43
6. Emerson, Ford & Co (Prize)	Oak	158	66	628	40	6	8	3/08	1	20x20	16	2.2	176	97	96	3%	12	60	6505	576	41
7. Woodridge & McFarlin	Poplar	157	66	610	50	6	7	3/07	1	20x20	16	2.2	176	120	16	3%	10	109	748	718	46
8. Emerson Planer Tooth	Oak	160	66	626	40	6	8	3/08	1	18x16	12	2.2	176	117	68	3%	12	60	6505	678	40
9. Emerson Planer Tooth	Poplar	157	66	636	40	7	8	3/08	1	20x20	16	2.4	176	109	49	3%	10	109	748	718	46
10. R. Hoe & Co., Solid Tooth	Oak	169	66	692	54	7	8	3/08	1	18x16	12	2.4	176	112	89	3%	12	116	683	743	44
11. R. Hoe & Co., Solid Tooth	Poplar	157	66	636	40	7	8	3/08	1	20x20	16	2.4	176	109	49	3%	10	109	748	718	46
12. R. Hoe & Co., Planer Tooth	Oak	169	66	692	54	7	8	3/08	1	18x16	12	2.4	176	112	89	3%	12	116	683	743	44
13. James Ohlen	Poplar	154	66	609	38	5	8	2/12	1	20x20	16	2.4	176	114	24	3%	8	139	9215	843	44
14. James Ohlen	Oak	157	66	632	51	7	8	3/08	1	18x16	12	2.4	176	109	49	3%	10	109	748	718	46
15. Curtis & Co.	Poplar	169	66	698	30	6	7	2/08	1	20x20	16	2.4	176	112	12	3%	8	104	7045	780	46
16. Curtis & Co.	Oak	157	66	634	30	6	7	3/16	1	18x16	12	2.4	176	112	12	3%	8	104	734	648	38
17. Curtis & Co.	Poplar	169	66	698	30	6	7	3/16	1	20x20	16	2.4	176	112	12	3%	8	104	734	648	38
18. Curtis & Co.	Oak	157	66	634	30	6	7	3/16	1	18x16	12	2.4	176	112	12	3%	8	104	734	648	38
19. Curtis & Co.	Poplar	169	66	698	30	6	7	3/16	1	20x20	16	2.4	176	112	12	3%	8	104	734	648	38
20. Curtis & Co.	Oak	157	66	634	30	6	7	3/16	1	18x16	12	2.4	176	112	12	3%	8	104	734	648	38
21. Curtis & Co.	Poplar	169	66	698	30	6	7	3/16	1	20x20	16	2.4	176	112	12	3%	8	104	734	648	38
22. Curtis & Co.	Oak	157	66	634	30	6	7	3/16	1	18x16	12	2.4	176	112	12	3%	8	104	734	648	38

THE NORTHERN PINERIES.

Table Showing the Old and New Logs on Hand and Actual Cut this Season in the Districts of Wisconsin, Northern Michigan and Minnesota.

In the accompanying table, the "Old" and "New Logs" given were amounts on hand last spring at the commencement of the sawing season, and the columns of daily cut of lumber, lath and shingles, are an average of what was actually cut and not the capacity, which in most cases is considerably more than the table shows. By reference to the "grand total," it will be seen that the Old Logs 448,000,000, New Logs 929,300,000 give a total of 1,337,300,000 feet on hand last spring. The average daily cut is 7,813,000 feet of lumber, this would take 200 days for the same mills given in the table to work up the logs. As the sawing season is only 160 days, it will leave to be carried over about one-quarter of the logs, and as quite a number of mills have already shut down and the rest are disposed to make a short season, we can safely calculate one-third of the stock on hand last spring will be carried over the winter and with a large surplus of manufactured lumber also. It looks as though there would be no scarcity, if there should not be a single log put into the rivers the coming winter.

	Logs on hand Spring of 1874.		Lumber cut each day.	Laths cut each day.	Shingles cut each day.	Number of hands employed.
	Old Logs. No. of feet.	New Logs. No. of feet.				
TOWNS, RIVERS AND DISTRICTS.						
GREEN BAY DISTRICT.						
MENOMINEE RIVER.						
Menominee, Mich.....	4,000,000	51,500,000	345,000	105,000	28,000	468
Marquette, Wis.....	7,800,000	44,700,000	333,000	87,000	55,000	377
Minnekaunee.....	4,000,000	18,000,000	130,000	25,000	.....	140
Total.....	15,800,000	114,200,000	808,000	217,000	83,000	985
PESHIGO RIVER.						
Peshigo and Harbor.....	.....	45,000,000	275,000	75,000	.....	300
OCONTO RIVER.						
Oconto, Wis.....	38,700,000	39,000,000	470,000	122,000	395,000	549
PENSBAUKEE RIVER.						
Pensaukee (includes one mill at Little Sturgeon).....	23,000,000	.....	160,000	35,000	50,000	175
LITTLE SUAMICO RIVER.						
Little Suamico.....	7,000,000	7,100,000	42,000	18,000	18,000	114
Petersville.....	.....	4,800,000	5,000	8,000	115,000	50
Total.....	7,000,000	11,900,000	47,000	26,000	298,000	164
BIG SUAMICO RIVER.						
Big Suamico.....	3,000,000	6,000,000	70,000	20,000	60,000	84
Clintonville.....	7,000,000	.....	25,000	14,000	35,000	.....
Total.....	10,000,000	6,000,000	95,000	34,000	95,000	84
Total for the Green Bay District.....	94,500,000	216,100,000	1,855,000	509,000	921,000	2,257

WOLF RIVER DISTRICT.

Oakshel.....	36,000,000	74,000,000	84,000	173,000	1,271,000	332
Shiocton.....	6,500,000	6,000,000	22,000	5,000	130,000	48
New London.....	1,000,000	1,000,000	15,000	2,000	60,000	18
Menasha.....	700,000	4,000,000	300,000	60,000	285,000	380
Fond du Lac.....	6,100,000	24,400,000	7,500,000	28,000	105,000	105
Omo.....	200,000	7,500,000	145,000	56,000	130,000	186
Winneconne.....	3,400,000	17,800,000	35,000	7,000	30,000	45
Northport.....	46,000,000	141,200,000	1,396,000	331,000	2,011,000	2,114
Total.....	59,000,000	80,000,000	445,000	131,000	204,000	302

WISCONSIN RIVER.....

BLACK RIVER DISTRICT.

La Crosse.....	39,500,000	33,500,000	445,000	131,000	204,000	302
Black River Falls.....	35,000,000	14,000,000	50,000	15,000	50,000	50
Total.....	74,500,000	47,500,000	495,000	146,000	254,000	442

CHIPPEWA RIVER DISTRICT.

Eau Claire.....	81,000,000	116,500,000	845,000	246,000	270,000	638
Chippewa Falls.....	3,500,000	47,500,000	405,000	135,000	25,000	335
Menomonie.....	45,000,000	55,000,000	360,000	105,000	80,000	1,000
Fairchild.....	74,500,000	6,500,000	75,000	8,000	40,000	60
Total.....	229,500,000	225,500,000	1,685,000	494,000	415,000	2,033

ST. CROIX RIVER DISTRICT.

Stillwater, Minn.....	9,400,000	44,000,000	335,000	105,000	145,000	355
South Stillwater.....	1,000,000	12,000,000	62,000	10,000	50,000	125
Hudson.....	2,000,000	2,600,000	41,000	25,000	35,000	60
Total.....	12,400,000	58,600,000	440,000	140,000	230,000	540

UPPER MISSISSIPPI RIVER DISTRICT.

Minneapolis.....	27,200,000	127,500,000	1,056,000	246,000	1,207,000	940
Anoka, Minn.....	1,000,000	28,000,000	250,000	72,000	110,000	350
Pine City, Minn.....	4,500,000	1,500,000	60,000	20,000	110,000	70
North Pacific Junction.....	3,000,000	2,500,000	55,000	21,000	30,000	65
Hinkley, Minn.....	5,000,000	5,000,000	21,000	338,000	1,147,000	454
Total.....	46,700,000	160,400,000	1,444,000	338,000	1,447,000	1,454

Grand Total.....

	448,000,000	989,300,000	7,813,000	1,938,000	4,978,000	9,845
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PITCH PINE LUMBER AND TIMBER.

REVIEW OF THE PRINCIPAL TRADE OF THE SOUTHERN STATES FOR EIGHTEEN MONTHS
ENDING JUNE 30, 1874.

Products of Georgia, Florida and Mississippi—Statistics of Their Coastwise and Foreign Trade in Yellow Pine—The Shipments to European Markets—The Varieties of the Trees and Grades of Lumber—Prospects of the Trade.

From a circular issued by Messrs. H. H. Colquitt & Co., of Savannah and Brunswick, Ga., we obtain the following valuable information for our readers :

Pitch pine is a wood familiar to most of the lumber trade ; it is known to the trade in different localities under several names. In the foreign trade it is known, almost without exception, as "pitch pine ;" in the coastwise trade it is denominated "hard pine" and "yellow pine", which are in contrast with "soft pine" and "white pine." All three of these names indicate some characteristic of the wood, and together they constitute a very fair description of it. It is hard pine because of its strength, toughness and durability, and these properties make it invaluable for ship building, car building, bridge building, and railroad purposes generally. The name pitch pine arises from the fact that the tree when tapped yields a resinous substance, which, in the hands of a manufacturer, produces resin, tar, pitch and turpentine. These articles (resin, tar, pitch and turpentine) are known as naval stores. The cones or fruit of this tree, when open and fully dry, drop the seed, which is a woody substance with a thin feathery looking tail like a comet on a lilliputian scale. These seed are very nutritious ; hogs are quite fond of them, and grow fat from feeding on them. The title yellow pine is derived from the bright, almost golden color of the wood. In the southern pine belt an

expert will say that there is a "pitch pine" a "yellow pine," a "slash pine" (or leaved pine) and a "loblolly pine." They belong to the same class, however, and the peculiarities indicated are simply the result of the ground or locality that produces them. Slash pine grows in the bottoms on the edges of the ponds ; "loblolly" is a very coarse grain pine, with very little heart, and grows in the swamps ; it is worthless and will rot in an astonishingly short time. The trade in pitch pine is quite extended. The British markets take a large amount in the rough state, that is prepared by hewing the bark and most of the sap off and bringing the tree to a square ; the article thus manufactured is known as hewn timber ; it is lined so as to have all or most of the bend or sweep (if there is any) one way, and is allowed to taper not over one inch in twenty feet length. Timber thus prepared runs in length from 30 to 70 feet long and is sold by the average, "in cubic feet," from 40 to 100 cubic feet to the stick, or say 480 to 1,200 superficial feet. About 173,000,000 superficial feet were exported in this shape in 1873, and, in the first six months of 1874, 220,000,000 feet ; average value about \$15 per thousand feet, superficial measurement. South America and the Spanish possessions take a large amount of manufactured or sawed stuff. The South American trade takes the lumber principally in what are called deals, 3x9, 14 to 40 feet long. Coastwise—Boston, Portland, Bath, New Haven, Providence, New York, Philadelphia and Baltimore all take a share. For ship building nothing has yet been found to equal pitch pine for durability and strength. The ports shipping this wood are Wilmington, N. C., Georgetown, S. C., Charleston, S. C., Port Royal, S. C., Savannah, Ga., Brunswick, Fla., Satilla River, Ga., St. Mary's, Ga., Fernandina, Fla., Jacksonville, Fla., Cedar Keys, Fla., Apalachicola, Fla., and Pascagoula,

Miss. The last four ports are on the Gulf of Mexico. Savannah, Brunswick, Darien, Pensacola, Pascagoula and Jacksonville are the leading shipping points.

In 1873, Georgia, Florida and Mississippi shipped 320,000,000 feet of sawed lumber, and for the first six months in 1874, about 171,000,000 feet. Value of lumber exported about \$9,500,000.

	Feet.
Hewn Timber and Lumber in 1873	493,000,000
Hewn Timber and Lumber in first months of 1874.....	405,000,000
Total.....	898,000,000
Value about.....	\$15,809,000

This estimate does not include Apalachicola, Fla., Cedar Keys, Fla., Mobile, Ala., Wilmington, N. C. Georgetown, S. C., Charlestown, S. C., Port Royal, S. C. These ports do very little in hewn timber, but manufacture largely of sawed stuff. We made every effort to get statistics from these points but failed; 112,000,000 feet for these places is not, however, an excessive estimate, giving us a grand total for eighteen months of 1,000,000,000 feet sawed stuff and hewn timber. Estimating 3,000 feet per acre, which is a fair average yield through the timber regions of Georgia, Florida and Mississippi, we have 330,000 acres of land denuded of timber in eighteen months. It is clear that the land from which this timber has been cut is that nearest railroads and streams and most accessible to ports from which it could be shipped.

The shipments of hewn timber to European markets, the large proportion going to the United Kingdom, has reached colossal proportions, and despite the enormous consumption it is a matter of surprise that these markets held up so long. The large stock that has accumulated in these markets has caused the natural result, and prices have declined with general dullness.

The stock of hewn timber in Liverpool, July 31, was nearly 24,000,000 feet, while the consumption from the

1st of February to the 31st of July, 1874, six months, was only about 19,000,000 feet, but we note that the consumption in July, 1873, was only about 2,000,000 feet, while in July, 1874, it was about 5,000,000 feet. Messrs. Duncan, Ewing & Co., Liverpool, remark in their circular, August 6, 1874: "The supply of pitch pine is the largest on record, and the prices realized for cargoes have proved extremely unremunerative. Notwithstanding the large consumption which has been materially assisted by important local requirements, the future value of this article is very problematic in the face of moderate first cost abroad and reduced freight coupled with the competition which must arise from the reduced prices of both Baltic and Canadian woods."

In sawed stuff the following review written by us for one of our leading journals, embodies the general condition of the trade:

The money panic of last fall, commencing in September, was very disastrous to this branch of industry, affecting it more seriously than almost any other department of Southern trade. This was due in a great measure to the fact that the railroads of the whole country were compelled to economise, and in most instances to discontinue all purchases of material for improving and adding to their rolling stock. The effect of this on wood and may be imagined in view of the fact that the bridges and trestle-work are generally constructed of it. It is estimated that in an ordinary business year it will require 25 to 30 million feet of pitch pine to repair annual destruction and decay, without counting anything for new cars or new railroads. With the panic this trade stopped suddenly and almost completely, and there has been very little revival up to this time. It is unnecessary for us to say that the panic caused the postponement or abandonment of many projected

buildings. Following the panic came the agitation of the currency question and a succession of strikes' all over the north, making contractors afraid to take a job, and added to these troubles was a general financial distrust. The enormous production of pitch pine had begun to tell on the price and demand before the panic, and as the production continued and the demand ceased the markets of the world became glutted. Large quantities of lumber were shipped to South American ports at enormous rates of freight, the markets were flooded, and shippers were heavy losers. The winter and spring of 1873 and 1874 were gloomy days for the lumber trade, and the activity in ship building was the only light. Mill men continued sawing rather than stop and feed a large number of mules, hoping that the hard times would soon pass away. Matters were thus made worse, and prices declined under the pressure until they reached the lowest point since the war.

By the beginning of summer many of the mills engaged in manufacturing lumber were compelled to "shut down" for want of orders. There are many of them badly crippled by the continued suspension of business, and it is fair to say that a good many of these mills will remain idle until there is a great reaction in the business.

It is difficult to give any idea of the course that will be taken by the timber cutters; they are scattered over a large area of country and located at different points in the woods, so that it would be an endless task to reach them. We can, therefore, only form an opinion from the general indications. The low prices, the uncertainty of getting any money advanced on the article when carried to market, the high prices of corn and bacon, all combine to prevent a large cutting of hewn timber for the fall and winter trade, and we know of many cutters having abandoned

the woods; but, despite of this, there is much uncertainty about the supply, and if the demand is good, at low prices even, it would not surprise us to see a large stock brought to market.

It will be noticed that the business of the first six months of 1874, is comparatively much larger than in 1873, and that the greatest depression is reported in 1874. It is accounted for by the fact that a very large amount of hewn timber, cut in 1873, was shipped in 1874, as is the case every season, but probably more largely the case last fall and winter than usual, owing to the panic. The same is true, but to a limited extent, of sawed lumber.

We close this review with the remark that the lumber and timber trade can hardly expect to see a more discouraging time, and we are of the opinion that the general decrease in production will be certain to have its effect, and that this universal depression will be followed by a bright morning:

STATISTICS OF PITCH PINE TIMBER AND LUMBER TRADE.

JANUARY 1st, 1871, TO JANUARY 1st, 1873.	
SAVANNAH.	
	Hewn Timber, Lumber, Feet. Feet.
Coastwise	7,051,404 55,245,400
Foreign	6,948,996 13,775,000
	14,000,400 70,020,000— 84,020,400
DAREN.	
	Hewn Timber, Lumber, Feet. Feet.
Coastwise	3,247,210 11,470,757
Foreign	46,638,226 8,415,654
	49,885,436 19,886,411— 69,771,847
BRUNSWICK.	
	Hewn Timber and Lumber.
Coastwise	20,394,000
Foreign	18,716,769
	39,110,769— 39,110,769
SATILLA RIVER.	
	Timber and Lumber, Feet.
Coastwise	3,070,000
Foreign	3,942,099
	7,012,099— 7,012,099

ST. MARY'S GA.

Hewn Timber and Lumber,	
Feet.	
Coastwise.....	2,600,000
Foreign.....	5,605,453
	<hr/>
	7,605,453—
	7,605,453

Total, Georgia Ports.....207,520,568

JACKSONVILLE, FLA.

Timber and Lumber,	
Feet.	
Coastwise.....	67,283,000 (Timber none)
Foreign.....	3,920,000—
	71,203,000

PENSACOLA.

Hewn Timber.		Lumber.
Feet.		Feet.
Coastwise.....	} 108,748,352 (Fgn.)	23,135,090 (% Fgn.)
Foreign.....		
		-132,883,342

FERNANDINA.

Lumber and Timber.	
Feet.	
Coastwise.....	16,523,000
Foreign.....	14,594,000
	<hr/>
	31,117,000—
	31,117,000

PASCAGOULA, MISS.

Timber and Lumber.	
Feet.	
Foreign.....	17,328,684
Coastwise.....	32,000,000
	<hr/>
	49,328,684—
	49,328,684

Exports of Timber and Lumber from States of Georgia, Florida and Mississippi, from Jan. 1, 1873 to Jan. 1, 1874 :

Georgia Ports—		Feet.
Total Foreign Timber....	52,578,228	
do do Lumber.....	51,454,876	
do Coastwise Timber....	10,298,614	
do do Lumber.....	92,779,757—	208,120,470
Total Timber.....	63,885,837	
do Lumber.....	144,284,633—	208,120,470

Florida Ports—	
Total Timber Foreign....	109,748,352
do do Coastwise.....	
do Lumber Foreign....	84,510,000
do do Coastwise.....	91,806,000—
Total Timber.....	109,748,352
do Lumber.....	126,316,000—
	36,064,352

Mississippi Ports—	
Total Lumber Foreign....	17,328,648
do do Coastwise.....	32,000,000—
	49,328,648

Grand Total—	
Georgia—Timber.....	63,885,837
Florida—Timber.....	109,748,352
Georgia—Lumber.....	144,284,633
Florida—Lumber.....	126,316,000
Mississippi—Lumber.....	49,328,648
Total Timber.....	173,634,189
do Lumber.....	319,879,281—
	493,513,470

JANUARY 1st, TO JUNE 30th, 1874.

Total of Exports—Timber and Lumber :	
Georgia Ports—	
Feet.	
Total Timber Foreign....	61,849,970
do do Coastwise.....	1,564,906
do Lumber Foreign....	44,683,621
do do Coastwise.....	51,000,000—
Total Timber.....	119,098,497
do Lumber.....	63,414,876
	54,983,621—
	119,098,497

Florida Ports—	
Total Timber Foreign....	147,012,660
do do Coastwise.....	
do Lumber Foreign....	12,719,000
do do Coastwise.....	52,299,000—
Total Timber.....	212,030,660
do Lumber.....	147,012,660
	65,018,000—
	212,030,660

Mississippi Ports—	
Total Timber Foreign....	17,898,000
do Lumber Foreign....	16,053,822
do do Coastwise.....	20,000,000—
Total Timber.....	53,951,822
do Lumber.....	17,898,000
	36,053,822—
	53,951,822

Grand Total—	
Georgia—Timber.....	63,415,876
Florida—do.....	147,012,660
Mississippi—Timber.....	17,898,000—
Georgia—Lumber.....	55,683,621
Florida—do.....	65,018,000
Mississippi—Lumber.....	36,053,822—
	156,755,448

Grand Total of P. P. Timber and Lumber Exported from Georgia, Florida and Mississippi in six months 385,080,979 feet.

Exports Pitch Pine Lumber and Hewn Timber from all Southern Ports for six months ending June 30th, 1874 :

SAVANNAH, GA.

	Timber,	Lumber,
	Feet.	Feet.
Coastwise.....	1,564,906	22,612,556
Foreign.....	9,849,970	6,325,977
	<hr/>	
	11,414,876	28,938,633—
		40,353,509

DARIEN, GA.

	Timber,	Lumber,
	Feet.	Feet.
Coastwise and		
Foreign.....	52,000,000	12,000,000—
		64,000,000

BRUNSWICK, GA.

	Lumber,
	Feet.
Coastwise (about).....	10,000,000
Foreign (about).....	10,000,000
	<hr/>
	20,000,000—
	20,000,000

ST. MARY'S, GA.

Lumber and Timber,	
Feet.	
Foreign.....	5,122,000
Coastwise.....	2,140,000
	<hr/>
	7,264,000—
	7,264,000

SATILLA RIVER, GA.

	Lumber,
	Feet.
Coastwise.....	4,240,000
Foreign.....	3,233,642
	<hr/>
	7,473,642—
	7,473,642

FERNANDINA, FLA.

	Lumber,
	Feet.
Coastwise.....	7,835,000
Foreign.....	6,203,000
	<hr/>
	14,038,000—
	14,038,000

JACKSONVILLE, FLA.

	Lumber,
	Feet.
Coastwise.....	32,464,000
Foreign.....	3,516,000
	<hr/>
	35,980,000—
	35,980,000

PENSACOLA, FLA.

	Timber,	Lumber,
	Feet.	Feet.
Coastwise and		
Foreign.....	157,012,560	42,973,000—
		189,985,660

PASCAGOULA, MISS.

	Timber,	Lumber,
	Feet.	Feet.
Foreign.....	17,898,000	16,053,822
Coastwise.....		20,000,000—
		36,053,822

Total Timber and Lumber in 1872.....	493,513,470
Total Timber and Lumber first six months, 1874.....	405,080,970

Grand Total, eighteen months, Georgia, Florida, and Mississippi.....	898,594,449
Cedar Keys, Fla., Wilmington, N. C., Charlestown, S. C., Port Royal, S. C., Georgetown, S. C., Apalachicola, Fla.....	estimated. 102,000,000
	\$1,600,594,448

STATEMENT OF SHIPMENTS FROM SAVANNAH.

YEAR ENDING.	Lumber and Timber.	
	Ft. B. M.	Value.
31st August, 1854.....	49,855,700	\$500,000
31st August, 1855.....	25,500,000	255,000
31st August, 1858.....	28,365,656	
31st August, 1860.....	27,100,500	400,151
30th June, 1863.....	35,156,000	765,065
30th June, 1868.....	31,996,387	605,858
30th June, 1870.....	43,695,996	834,873
30th June, 1870.....	42,822,778	872,246

Inserted as information in regard to the trade of Savannah, this will give an idea of the rapid growth of the trade, as Savannah stood first as a shipping point of P. P., before the war.

WASHBURN AND HIS ENEMIES.

Concerning the statement of Ex-Gov. Washburn which we present elsewhere the *Milwaukee Journal of Commerce* remarks:

We take satisfaction in reproducing Gov. Washburn's letter to the *Madison State Journal* defending his administration from certain exceedingly shallow and ineffectual "reform" slurs. They are exactly of a piece with the disreputable Sat. Clark's aspersions upon Gov. Taylor. There is very rarely anything gained by means of ingeniously trumped-up charges against irreproachable and faithful public officers.

Gov. Washburn proves not only that his subordinates performed with due diligence their duty in protecting the state's timber from encroachment, but that he, in refusing to apparently improve his record by improvident compromises, really saved to the state the title, in a million valuable acres of pine lands.

Mr. Washburn as governor of Wisconsin proved himself a brave, vigilant and competent servant of the public. He is a statesmanlike man and an honor to Wisconsin. The character of the man may be known from that of his traducers. They in every instance turn out to be either the most corrupt sort of republican official hacks, an occasional shallow-pated partisan journalist, or the creatures of the railroad corporations whose tyrannical powers and claims he (first of any public man in Wisconsin) questioned and resisted.

DIFFERENCES BETWEEN LUMBERMEN AND MICHIGAN RAILROADS.

The question of rail transportation has already become a very important one in the principal lumbering districts of the country, and we may reasonably expect that it will be of still greater consequence in the minor districts as the roads are extended. Just now it seems likely that a movement somewhat resembling the farmers' grange organization will result, the lumbermen being very generally dissatisfied with the freight rates, or the facilities afforded, or both. In the Saginaw district of Michigan, the movement against the railways was inaugurated many months ago, but it has only lately assumed a form which promises to be felt. The inland mill men along the line Jackson, Lansing northern extension have so far had this movement almost entirely to themselves. They have an organization, to which some reports of the dealings of the road with its customers have been made. It is charged in brief, that the facilities furnished are shamefully inadequate for any but the dullest seasons; that prices are unreasonable, and that contracts are not to be depended upon; that unnecessary and vexatious delays are made in the settlement of claims arising out of irregularities, and stations are discontinued after mills have been erected, depending upon them for facilities in getting supplies and shipping lumber. The railway company denies all this, and asserts that the road is well managed to afford all possible facilities for the business which it is its interest to foster, not to discourage. The issue here joined is broad enough and the interests involved are of sufficient importance to afford the basis for a genuine railroad war. The latest plan of the lumbermen is to get a representative in the state legislature, and so get an audience where something effective may be done.

It is not many months since a

state investigation was made on several roads in the eastern part of the state, and the prospect now seems fair for more work of the same sort. In the meantime, it is becoming apparent that Michigan is not alone in real or supposed grievances suffered by lumbermen at the hands of the railways. The Pennsylvania lumbermen, at the late meeting at Williamsport, remonstrated against the practice of charging them for 200 miles transportation, three-fifths of the rate charged western lumbermen for 1,000 miles carriage, or at the rate of three times the proper charge, according to distance. The Pennsylvania men propose to prosecute the matter until relief is obtained, insisting that the discrimination against them is especially unjust, because they have given the railway the right of way into their district and even into the mill yards, greatly increasing hazard from fire, and, of course, insurance rates.

There is no doubt, from these and other recent developments, that the lumbermen are beginning seriously to count the cost of the railways which a few weeks ago they were so anxious to have run through their districts. Into such a calculation must be brought not only the increased fire risks on mills, but the rapidly augmenting destruction of standing timber by forest fires. This misfortune seems, however, to be peculiar to the west, and perhaps Michigan is the heaviest sufferer in that region. In that state the matter was long since of sufficient importance to demand earnest attention.

Taking only the disappointments and consequent losses on freight calculations, and the actual losses by reason of fire and increased fire hazard and insurance rates, there is little doubt that the balance would be largely against the railroads. But of late another consideration has been mentioned. It is charged that manufacturers are kept out of some

of the lumber districts, which have peculiar facilities for certain industries, by reason of the high freight rate. A difference in rates of \$25 per car between New York and two Michigan cities, was recently mentioned at a railroad meeting in this section, and the speaker accounted for it by the fact that one of the cities had two lines of railroad and the other but one—both being about the same distance from New York. It was boldly asserted that manufactures of wood could not be successfully carried on in a country abounding in the raw material and possessing every possible advantage except railway competition. Instances are mentioned where capitalists have looked over the country for a location, and finding everything else to their satisfaction at certain points, have finally been driven away by the impossibility of getting rail transportation at reasonable rates and proper certainty.

It would, of course, be rash to venture a prediction now upon the extent to which the lumbermen will go in this matter. We have merely called attention to the fact that the indications are that the mantle of the grangers has fallen up the lumberman, who promises just now not to be idle with the inheritance.—*Lumberman's Gazette*.

A GOOD CANDIDATE FOR CONGRESS.

Mr. S. B. Chittenden, the great dry goods merchant, is urged as the best possible successor to General Woodford in congress from Brooklyn. The district is thoroughly republican, and we heartily indorse the nomination of Mr. Chittenden. He is a man of considerable learning, honest, upright, and though somewhat "opinionated," he holds advanced views on all leading subjects of government. His letters on public affairs have always shown more than ordinary insight into the meaning of current events; and he is a fair speaker and writer. By all means send him to congress. He is as much bigger than H. A. Bowen as Saturn is bigger than a pin-head.—*Frank Leslie's*.

PROTECTING TIMBER LAND.

SPIRITED LETTER ON THE SUBJECT FROM EX-GOVERNOR WASHBURN.

Campaign Slurs Upon His Administration Handsomely Refuted—Valuable Rights Preserved to the State by Gov. Washburn's Refusal to Swell His Cash Balance by Improvident Compromises.

Mr. C. C. Washburn, ex-governor of Wisconsin, has addressed the following letter to the *Madison State Journal*:

MADISON, October 13,
Editor State Journal.—In the *Madison Democrat* of the 26th ult, I read a statement in regard to the management of the timber lands within the limits of the St. Croix land grant, highly laudatory of the reform administration, and derogatory to its predecessor. Though I knew it to be entirely inexact in relation to the late administration, I did not feel called upon to notice it, nor should I now, had I not observed that the substance of the article had been widely copied outside of the state, and though the *Democrat*, the next day, confessed to a slight error of \$35,896.38, I have not seen any credit for it given elsewhere, and as late as the 10th inst, the *Democrat* copied from the *Detroit Free Press* a statement that the republican administration had collected but \$18,000 in 1873, when the junior editor had in his pocket a letter from the state treasurer, in the words and figures as follows:

STATE OF WISCONSIN,
 TREASURER'S OFFICE.
 MADISON, Sept. 29, 1874. }

DEAR SIR:—Allow me to make a few remarks to the communication in this morning's *Democrat*, relating to the penalties collected from trespassers on the St. Croix Lake Superior land grant tract:

The penalties collected by former state agent, Sam Harriman, during fiscal year, 1873..... \$18,891 04
 In addition thereto remittance December 30, 1873..... 5,000 00
 Total cash..... \$23,891 04

And surrendered notes for collection, in settlement for trespass penalties, maturing mostly in March, April and July, 1874, amounting in the aggregate to \$30,896.38.

Amount collected on said notes up to the present date was..... \$21,991 90

One note due July, 1874, for \$8,799.66, was protested for non-payment, and legal proceedings instituted to enforce its payment.

And of another note for \$1,070 60 there was paid on acct.... 542 35

Leaving balance outstanding of..... \$527 65
 Total cash collections received of Sam Harriman..... \$46,435 29
 Notes in process of law..... 8,799 66
 Note outstanding..... 527 55
 \$55,762 62

The penalties collected through the agency of Mr. John W. Bashford alone amounted to \$38,590 58 during the period of about seven months only, and were all received in deposit certificates of responsible banks, payable on the 30th of December proximo, while the notes received in settlement by Mr. Harriman mostly consisted of notes given by the trespassers themselves. Yours very respectfully,
 (Signed) FRED KUEHN,
 State Treasurer.

To R. M. Bashford, editor *Daily Democrat*, City.

From the above, it will be seen that not one dollar has yet reached the state treasury since the advent of the reformers, and that whatever sums have been collected are now in the hands of certain Minnesota bankers, drawing no interest and not payable until December 30th. On the other hand it shows that Gen. Harriman collected in 1873, not \$18,006 as stated, but \$55,752. It is true that in making sales of logs, and to obtain the best price, he was compelled to take notes on short time, for \$30,896.38; but they were all well indorsed and certified to by bankers at Stillwater to be good, and all drew 10 per cent interest. Of this \$21,991.60 has already been paid, and the note of \$8,799 66 is perfectly good, as the treasurer informs me; the parties declining to pay only for the reason that Gen. Harriman, as they say, made them give a note for more than the logs were worth.

It will be seen from an examination of the accounts of Gen. Harriman in the executive office, for 1873, that all the large trespassers were compelled to buy in their logs at \$5.01 per thousand, the state running them up to \$5; while see it stated that the trespassers got away with the present agent for \$4.

To sum the matter up, then, so far as the years 1873 and 74 are concerned, being the years in question, the account stands thus:

Collected by Gen. Harriman in 1873, and now in the state treasury..... \$46,425 29
 Balance in process of collection..... 9,327 21
 \$55,752 50

PER CONTRA.

Collected by reform agents in 1874, from 14,000,000 feet of logs..... \$38,590 58
 Cash paid into the state treasury

Assuming that the \$38,590.58 now in the hands of the Stillwater bankers is paid, and the account stands thus :

Collected by Harriman in 1873..... \$55,752 50
 Collected by reform agents..... 88,590 58

Balance in favor of Harriman..... \$17,161 92

It is claimed that there is \$17,000 in process of adjustment by the present agent. When that reaches the state treasury will be time enough to claim credit for it. Hopes are held out for

other receipts, as there are said to be other agents not heard from. If there be such agents who have failed to report any trespasses up to this time, the hope cannot be very strong that they will be heard from hereafter. What I have said above in regard to Gen. Harriman applies solely to 1873. His accounts for 1872, which I inquired for yesterday at the executive office, could not be found, but for 1874 Gen. Harriman, in addition to cash collected, recovered judgments in the United States district court for Minnesota, or obtained stipulations for judgments to the amount of \$73,000, and at the rate of \$10 per thousand feet. Two of the cases, amounting to \$23,000, were appealed to the supreme court of the United States, and have not been reached on the calendar. The remaining cases stipulated to abide the result of the two that were appealed: These were all suits in replevin and security was given in each case, and it was in reference to all these cases that \$5,000 was expended in litigation. The questions involved were of great magnitude, the first being the right of the state to the lands; and second the amount it was entitled to recover. My predecessor wisely judged it best to employ the ablest counsel to be had, and the result justified it, and in view of the amount and legal questions involved, the sum paid was reasonable. When the reformers can show a recovery at the rate of \$10 per thousand on 7,000,000, instead of \$4, the people will be glad to allow them \$5,000 for legal services. The design of the law authorizing the appointment of an agent was to prevent trespassing, and the merit of the agent is to be measured by the smallness of the amount of timber cut, for the better he discharges his duty under the law, the less will be the trespassing, and with a view to prevent it was one of the reasons why I refused to compromise the judgments before named at \$6 per thousand.

The recovery of judgment was in the United States circuit court, Judge Miller, of the supreme court, presiding. His decision was that the title of the land, over 1,000,000 acres, was in the state. Parties against whom judgments were obtained, threatened to take the cases to the supreme court if I would not compromise with them. My answer was: "That is just what I desire you should do, as the state wants the opinion of

that court as to whether the lands are hers or not."

Had I compromised, though it would have made a good showing of money, it would have been utterly fatal to the interest of the state, as the attorney-general has given an opinion that would have resulted in the lands being put into market, but for the fact that the question was before the supreme court.

Respectfully yours,

C. C. WASHBURN.

FOOT LATHES.

In most of the processes which we have hitherto been considering, the work is kept stationary, and the necessary motion is imparted to the tool. In the various forms of lathe—to which we must now pass on—this operation is almost always reversed, the work being made to rotate, whilst the tool is moved to a comparatively trifling extent. The great facility with which moderate truth of figure can in this way be given to cylindrical work, and the endless variety of forms which result from combining the motion of the work with that of the tool, have made the lathe one of the most widely applicable, as it was one of the earliest of all machine tools. Not only can the hand-turner, in his comparatively simple form of the instrument, produce with some half dozen chisels, gouges, &c., any number of intricate moldings, for each of which the joiner would require a separate molding-plane, but, by giving a perfectly uniform motion to his tool, he is able to cut spirals or screw-threads of any required depth or delicacy. For this latter purpose alone the lathe is quite indispensable to the millwright or the engineer, since by means of it—when, at least, it is provided with the automatic arrangement, which will hereafter be described—he is enabled to produce screws of any required diameter, or of very great length, with an amount of speed and accuracy, quite unattainable by the methods previously mentioned.

In its original form the lathe was

doubtless a very simple affair, probably differing but little from the old pole-lathe, which may still, now and then be met with in a village carpenter's shop. It is obvious that this machine is not adapted either for accurate or speedy work; the backward and forward motion obliging the turner to waste one-half of his time whilst the spring lath (whence the name *lathe*) is raising the treadle, and thereby producing a revolution in the wrong direction.

The introduction of a crank and fly-wheel, by which the reciprocating motion of the foot is converted into one of continuous rotation, and the replacement of one of the dead centres by a headstock capable of supporting a mandril with a pulley upon it, were most important improvements, which are believed not to be of very ancient date. But, with the exception of the crank and the mandril, the change did not necessitate the use of much iron work, inasmuch as the bed, fly-wheel, pulley and headstocks could still be made almost entirely of wood. Lathes of this kind may even now be found in use among soft wood turners, who, for small work, require a light fly-wheel, which can be quickly brought up to a high speed, and as quickly stopped. For many years, however, timber has been giving place to metal in the construction of foot-lathes, and it is now rarely employed for the beds or framing of those, which are intended for accurate turning. For the numerous powerful instruments which the engineer includes under this head, it is, of course, wholly unadapted.

In the case of soft materials, the size of the work is limited as to length by that of the available part of the lathe-bed, and as to diameter by the height of the centre of the mandril above it. As the diameter of the work cannot be more than twice this height, it is necessary to know it, and also the length of the bed, in order to judge of the capabilities of a lathe.

For the use of amateurs, lathes are made in considerable variety. It is generally required of them that they shall be light in appearance, well adapted for either soft or hard wood, and also for light work in metal. For the first of these purposes it is essential that a lathe should run freely at a high speed. Considerable gain in this respect results from the abandonment of the parallel bearings of the mandril formerly used in favor of that which is known as the Fast Headstock. At its hinder end this mandril has a steel centre-point, which is supported in the slightly hollowed extremity of a screw, also tipped with steel. A fine leading-hole drilled truly in the centre runs for some little distance into the body of the screw, the tendency of the point to follow this when any wear takes place, being of great assistance in maintaining the truth of the centering of the mandril. The other—the front—bearing, is parallel only for about five-sixths of its length, the remainder consisting of a conical shoulder, which—by means of the screw at the opposite end—is just kept lightly in contact with a steel "bush" in the face of the headstock. The whole of the bearing portion is case-hardened, and should be so carefully fitted to the bush that, although capable of revolving with perfect freedom, not the slightest tendency to "shake" in a direction transverse to its axis can be detected. In good lathes of this kind, the conical pulley of the mandril is generally made of gun-metal; and, if intended for ornamental engine turning, its face is graduated with scales of equal parts, into the use of which we cannot enter at present. The fly wheel in these is often provided—in addition to the series of grooves round the periphery, with an inner ring, having upon it one or more grooves of very much smaller diameter. By passing the lathe band round this ring and into the largest groove of

the pulley, a very slow speed can be given to the mandril.

Besides the fast headstock, the bed of a foot-lathe has to carry a rest, to enable the tool to be held steadily against the work, and also a back poppet, for holding a steel point or "back centre." The chief use of the poppet is to afford support to any piece of work, which would otherwise be unsteady, by giving it a bearing against the back-centre, which is made of steel, and, being pointed, does not interfere with its revolution. It is highly important that the centre should be exactly in the line of the axis of the mandril, whilst at the same time the distance between it and the headstock must admit of ready and rapid adjustment. The poppet is, therefore, made moveable along the bed, but its motion is confined to one straight line by one or the other of the methods mentioned below; a screw, working into the tapped hole which appears in the section, enabling it to be securely clamped after being brought up to the extremity of the work. The back-centre can then be adjusted, so as to bear with a greater or less pressure, by turning its hand-wheel, which works the sliding cylinder by which it is carried. An examination of the section will explain the reason of its movement. The spindle upon which the hand wheel is keyed is screwed for about half its length into the sliding cylinder, this being made hollow in order to receive it. But a large shoulder, which is kept up to the poppet-head by a cap, prevents the spindle from changing its own position; and a pin, running in a groove upon its under side, resists any inclination on the part of the sliding cylinder to revolve with the spindle. When, therefore, the hand-wheel is turned, the cylinder is made to slide towards the mandril when the upper part of the wheel is moved to the right, and away from it when to the left, the screw upon the spindle

being made left-handed with this intention. The back-centre having been thus satisfactorily adjusted, the sliding cylinder can be clamped by the set screw above it.—*Workshop Appliances.*

A DIAMOND SAW.

The *St. Louis Journal* makes an interesting description of a curious product of the ingenuity of the senior member of the famous firm of Branch, Crookes & Co. It has been already described for the information of readers of the WISCONSIN LUMBERMAN. Still we believe the following paragraph will prove readable:

Wisacres tell us "there's nothing new in the world" and that may be so; but the application of matter and forces are new to all; instance the thousand and one things that are year after year cropping up to astonish and confound our senses, calling at once our profound admiration and deepest awe. It seems as generation after generation develops new ideas, it is left for another to perfect them and bring them to what in our eyes seems perfection, which to a future generation will be but a key note, or Alpha to their Omega. Franklin brought the lightning, Morse applied it, and so in a thousand instances; but it is to a St. Louis citizen that is left the honor to apply a series of diamonds to cut rock like a cheese, a thing never accomplished in the world before. Everything is in the application. There is a saw blade; there is a diamond; but it has been a work of ages to bring them together in such a way that granite or marble might be cut. J. W. Branch, of the well-known firm of Branch, Crookes & Co., of 114 and 116 Vine street, in this city, the largest saw makers in this western country, has made this matter a study for years and has at least accomplished something new, viz: the

means by which a diamond (black) could be inserted into a saw blade (circular or otherwise) and there be made fast enough to do the required work which he dreamed it should do. To-day at the fair ground he exhibits his diamond stone saw and will show the world that a revolution will and must take place in stone sawing, for he takes a block of Knoblick granite and cuts it at the rate of one and a half inches to the minute with unerring precision and as smooth as if it were wood or vegetable matter.

Now for the description. Mr. Branch takes a circular saw plate and inserts about thirty small pieces of steel or iron in which is embedded a bort or black diamond, each diamond being worth from \$12 to \$20 per carat. The small pieces thus inserted are made fast by a steel rivet and dovetailed in itself to the saw disc. We will take the size of the circular plate in use now for a model; it is 60 inches in diameter holds 30 diamonds equi-distant around its edge, and is capable of a speed of over 650 revolutions per minute. This plate is affixed just in the same manner as a regular circular saw for wood work, but has a rubber pipe fixed in such a manner that a spray of water is running on the side, edge and in front of the blade as it revolves, and answers a double purpose for cooling the saw blade and wetting the stone.

The saw is fixed above a bedplate, which has a feed movement with head blocks on rollers and rocks of any size or weight can be made secure or immovable by peculiarly constructed dogs, which make a thorough clamp and are ingenious as they are useful, and are a credit to their inventor. All the machinery connected with the stone saws was specially designed and prepared for them by Mr. John J. Squire, a mechanical engineer of well-known ability, and who is Mr. Branch's superintendent of machines in this undertaking. There is much

to admire in his devices, but most noticeable of all was his universal counter shaft standard which does away with loose pulleys, and by movement of a lever lifts the shafting or main wheel away from the belt and stops all communication between the driver and the driven. Small saws are used for ripping, cross-cutting and such like. We expect to see now, as we said before, stone cutting revolutionized. Diamonds can be inserted in reciprocating saws to cut stone, so that every kind, character and size of stone can be operated on by the diamond as easily as soft sand stone can be cut with a sand saw, and that without trouble, inconvenience or waste. The apparatus is portable and can be as easily operated in a stone quarry as in a factory. The machine is well named the Stone Monarch.

HARD WOOD LANDS.

The *Wisconsin Pinery*, speaking of the timbered lands of the upper Wisconsin, says :

And not the pine only, which hitherto seems to have been a lone thought, but the hard timber as well—the oak, the maple, the bass and the elm, not forgetting the hemlock and spruce—these will soon prove equally valuable with the pine. In fact, all kinds of trees are as good as the gold. Whoever has traveled down the railroad through Brown and Calumet counties, and noticed the industries operating there on the hard timber, getting out staves and other articles, employing hundreds of mills, and thousands of men, will see at once the immense timber wealth we have in our rear. But it is only through the railroads that this wealth can be utilized. How strange that there can be found a man in Stevens Point to oppose the railroads!

THE WAYWARD WISCONSIN.

The improvement of the Wisconsin river by the construction of wing-dams is not an entire success. The river is head-strong. It crosses the obstructions put in by engineers and form bars where channels should be. The bed is broad, and the sand drifts easily. In very low water it is hard to pass from Prairie du Sac to Portage, with a boat drawing but 14 inches of water. This is the testimony of the editor of the *Baraboo Republic*, who accompanied the members of the committee appointed to inspect the work. The boat met with serious obstacles. It took three hours to get the steamer over the bar. In some places the improvement had the desired effect, in others it did not. All the members of the committee, after full discussion favor the third plan, reported by Gen. Warren, as follows:

Third plan—To secure five feet navigation at low water, all to be canal, 118 miles. Canal 70 feet at bottom, 80 feet at top. Locks 17x35. Total lock lift 175 feet. Sides of canal in cuts paved to allow the use of steamboats—4,164,270. In order to finish in third year, it will require \$2,082,130 the first year, the remainder the second year, and \$60,000 annually thereafter.

They also adopted a resolution recommending the construction of locks larger than those named above, and discussed the general plan of the work. We hope as the matter becomes better understood and the engineers are taught by experience the effect of present improvements, a plan will be adopted to build a canal. That is what the people want, and the government should, as soon as possible, connect the great lakes with the Mississippi by the construction of a deep, safe steamboat channel along the Fox and Wisconsin rivers. Wing dams will not do the work required.—*State Journal*.

BLACK RIVER FALLS.

The *Mazomanie Sickle* says:

T. J. Kress, familiarly known as the "senator," writes us a very interesting letter from Black River Falls, and as that place has, among its citizens, several late Mazoites we will give a portion of the senator's description:

The town has about 3,000 inhabitants, is situated on the north bank of the Black river, so called from being perpetually black, caused by its flowing through tamarack swamps and pine lands. At this place the river has a fall of from 30 to 40 feet in about half a mile, making an excellent water power, by which is operated a large flouring mill, a sash and door factory, foundry, machine shop, saw mill, etc., giving the place an interesting and flourishing appearance. On the north and west it is supported by a rich farming country; but on the south for about 20 miles it is a waste of sand and burnt pine timber, with barely a house to be seen.

KAOLIN IN WOOD COUNTY, WISCONSIN.

Nature has made Wood county the great repository of Wisconsin for this hitherto hidden wealth. We are not aware that kaolin is found elsewhere in our state in quantities warranting the investment of capital in its development and manufacture. Here we have thousands of acres of the purest quality, in fact it exists in such quantities that to talk of its exhaustion is simply absurd. We predict that within the next decade a half million of dollars will be invested in wood county in the manufacture of Kaolin into fire brick and the various kinds of wares for which it is adapted, and even in European markets rare goods of beautiful design and pattern, will be found manufactured from Wood county kaolin.—*Wood County Reporter*.

CANADA TIMBER ASSOCIATION.

FULL REPORT OF ITS SECOND ANNUAL CONVENTION AT OTTAWA.

Steps Taken Towards Permanent Organization—The Government Circular Condemned—Opposition to the Present Mode of Culling Lumber—Interesting Debate on the Question of a Combination to Curtail Manufacture—A Small Attendance But A Good Many Ideas.

From the Ottawa Citizen, Oct. 16.

The second session of the Lumber and Timber Association of Canada opened here to-day. Through some misunderstanding as to the time of meeting, only three of the Ottawa men were present at the appointed hour. The secretary did not turn up, and the meeting had to adjourn until 7 o'clock in the evening. Among those who were present, were Mr. Scarth, representing the hardwood interest in western Ontario, Messrs. A. H. Campbell, D. Ullyot, Alex. Smith and W. Mc Dougall, of Peterboro, D. Hilliard, of Packenham, Jas. McLaren, Buckingham, Edward Wright, Hull, John McLaren, Templeton, A. A. Humphrey, of Quebec, Chas. Mohr, of Mohrsville, Messrs. Perley, Booth, Mc Clymont, Jno. Rochester, J. M. Currier, B. Batson, Mr. Waddell, W. H. Stubbs, Mr. Pattee, Mr. Cruice, and E. B. Eddy, of Ottawa; Hon. John Hamilton, of Hawkesbury, J. K. Ward, of Montreal, Mr. Cassils, of the U. F. Co., and Allan Grant of Fitzroy.

THE SMALL ATTENDANCE.

In opening the meeting, Hon. John Hamilton, president of the association, referred to the extreme difficulty of getting the members together. He said it was impossible to get a meeting in September, and from present experience it seemed almost impossible to obtain one in October. Although notifications had been given through the public press for some weeks past, here they found themselves at 8 o'clock at night without anything having been done, although the appointed hour for the

meeting was two o'clock. Under these circumstances he wished to have the opinion of the meeting as to the best mode of proceeding. Last meeting it was made imperative that one-half the association should be present before any business could be done. He had arrived the evening previous to attend a meeting of the executive committee, but to his astonishment the only members present were Messrs. Perley and McLaren. This apathy on the part of the Ottawa members placed the lumbermen in a very unenviable position before the country. He had very little faith in the association from the first, and his fears were confirmed by the result to-day. There were questions respecting culling and other important matters that should be taken up by a meeting of this kind that might be handled to their mutual advantage.

AN ACT OF INCORPORATION.

Mr. Campbell said he would submit a resolution which would test the intention of this meeting to carry out the objects of the association. He then moved "That the executive committee be authorized to take steps to obtain an act of incorporation for this association." It seemed to him that if the association were to be of any benefit to the lumber trade they should be incorporated, so as to carry on the work satisfactorily. With an act of incorporation they could make themselves felt in a more decided way than they could at present. Without it he considered it would be hopeless to attempt to carry on the association as they had at first intended.

The motion was carried.

THE CULLER'S OFFICE.

Mr. Hilliard said he had a motion relative to some questions put by the government in a circular, which no doubt they had all received copies of, respecting culling of timber. He moved a resolution, seconded by Mr. McLaren, which was subsequently amended, after some suggestions

from those present, so as to read as follows: "That in the opinion of this association, it is not desirable to change the present mode of culling or inspecting square timber, but it is highly desirable that the rotation system now prevailing as regards the employment of cullers should be abolished, and that the fees for culling should be reduced at least one-half, which, it is believed, would be ample to make the office self-sustaining.

The motion was carried.

Mr. Hamilton said the scheme contemplated by the government touched not only the question of culling at Quebec, but also of culling in every man's mill in Canada. If any encouragement was given to it it was evidently intended to take from the miller the right of selling in his mill any lumber without culling.

CULLING LUMBER.

Mr. Campbell moved, seconded by Mr. J. R. Booth, "That in the opinion of this association it is not expedient to introduce any obligatory system of culling sawn lumber into Canada, it being believed better to leave manufacturers to sort and dispose of their products in the way in which the peculiar circumstances of the case appears best adapted to meet the wants of the various markets to which the lumber is shipped, and any general system of culling would be cumbersome, expensive and without any particular beneficial result. He spoke very strongly against any attempt to introduce culling into the mills. Any person who was acquainted with the transporting of lumber by railway and transshipment would see the force of this resolution. In the trade of deals, as carried on in Quebec, it might not make so much difference, but in mills through his district (Peterboro), where they sent their lumber over railways, and then shipped it across the lake, and from there to canal boats, it was clear that no matter how perfectly they might sort their lumber at the mill, it would

be mixed up again before it would reach the market at Albany or Troy. Sometimes they sawed four or five different sorts of lumber at each mill, and then it was again sorted into three or four grades for each class; it would make sixteen different kinds which would have to be kept separate and distinct. It would have to be loaded separately into cars, and it would require an amount of dockage which did not exist in any yard in Canada, to keep the sorts apart until they were loaded into schooners. The most desirable thing was to make as few sorts as possible, and then sort only when the lumber reached the market. He would express no opinion on deals, but it appeared to him that lumber of any kind was not to be likened to ashes, pork, butter, cheese, or anything of that kind which were boxed up and hidden from the view of the purchaser. Lumber generally passed from the manufacturer to the consumer, and he could not see any good that would arise from introducing a system that would give them an immense amount of trouble without any practical benefit.

MR. JOHN ROCHESTER'S EXPERIENCE.

Mr. John Rochester said he had received a circular from the Inland Revenue Department about this culling. He would say with regard to the deputy head of that department, he had some experience with him in the past, and he thought the less the lumber interest had to do with the same gentleman in the way of answering circulars the better. He had a staff now under him that was large enough without adding to it, and if they added any more to it it would take more than half the excise to pay their salaries, while the deputy ruled as a sort of little lord over them. (Laughter.) That gentleman wanted to obtain information out of the lumbermen the way he did out of other interests and then when he got it to lay the rod on their backs. He

hoped the press would warn manufacturers against replying to his circulars in future. (Laughter.)

HON. JOHN HAMILTON ON CULLING.

Mr. Hamilton said this culling question had been a serious one to the lumber trade for years. When the law passed, of course, they had to succumb, the result was at the end of the first year the customers who were in the habit of purchasing from the old firm of which he was a member joined together in a letter, stating distinctly that they would hold themselves answerable for any expense the firm would be put to in contesting the legality of the act. The consequence was they employed their own cullers and a suit ensued, which entailed very considerable expense, but the firm won the suit. In the interval they had gone to the legislature, and the result was that Mr. Cameron introduced a clause into the act by which deals could either be culled or counted. There were reasons why butter and such products should be inspected, but as for lumber, the man who goes to buy it can see its quality as well as the man who sells it, and if he is satisfied, surely the government should let them alone in such matters.

Mr. Campbell said he did not intend his resolution as a reply to the government circular, but simply as a basis for a reply from the executive committee.

The motion was carried.

Mr. J. M. Currier, Mr. Hamilton, Mr. Hilliard and Mr. McDougal all condemned the rotation system of culling at Quebec, and expressed their surprise that the government had not taken action in this matter according to the promise made last session.

Mr. Hilliard said he did not know whether it was through fear or favor the government had neglected to reduce the number of cullers this season.

Mr. Scarth, as representing the hard wood interest of western Onta-

rio, was introduced, and, after reading the resolutions passed by the hard wood men at their meeting in Toronto, announced that they would be pleased to join the L. and T. association.

Mr. Perley moved that the congratulations of this association are due, and are hereby expressed, to the hard wood producers on their able representation by Mr. Scarth, and that they be cordially invited to join this association.

A LITTLE BREEZE.

Mr. Eddy asked whether it was compulsory on every person who joined this association to curtail his lumber operations for next season one half.

Mr. Perley said most decidedly it was.

Mr. Eddy said there was no use in his joining it then, for as a man of honor he would have to stick to it, and it would be impossible under existing circumstances.

A debate ensued in which some jealousy was manifested as to the question of night and day sawing.

Mr. Perley contended that any man who joined this association was bound in good faith to carry out its object, and if he was not prepared to do so, he should not belong to it. He did not think it was fair to have nine tenths of the lumbermen bind themselves to reduction, and have the other tenth take advantage of the improvement made by that reduction, to run their mills to their full capacity.

Mr. Currier agreed with Mr. Perley that if the association was expected to do any good to the trade, every member should be bound by any action taken by the body in such matters as reduction or any other movement for the interest of the whole. If Mr. Eddy was in such a position that he was either so rich or so poor that he could afford to act independent of other men in spite of the condition of the market, it was all very well, but he considered t

would be better for him to abide by the action of the association. If Mr. Eddy felt at liberty to withdraw from the agreement to reduce one half, he (Mr. Currier) would also withdraw. This was the first meeting of the association he had attended, as he was absent from the city when the association was formed. He wished to express his entire approval of its formation, and hoped it would be given a fair trial, as he believed it would be a boon to the trade.

Mr. Eddy said when he referred to this resolution it was not because he considered he was so very rich or so very poor that he would not work with the association, and he was sorry that Mr. Currier should have made any reflection on his circumstances.

Mr. Currier disclaimed any intention of casting any reflection on him.

Mr. Eddy said every person present knew that his circumstances had been rather embarrassing for the last twelve months, but he did not wish to throw his business over to this lumber association, or any other association. He would be willing to assist the object of the association, as far as he could do so without injury to himself. The agreement signed by the members was that they should curtail their business one half. He knew very well that he could not do so, he wished to state it frankly, and he would be obliged to withdraw, as nobody understood his circumstances as well as he did himself. He would curtail his works as far as he could practically do so, but any member of this association who understood the different branches of his business as well as he did, would know that he could not curtail one-half without great injury. He was very sorry to hear any remarks from Mr. Currier about his (Mr. Eddy) being so rich or so poor that he could do as he pleased.

Mr. Currier wished it to be understood that his remarks were not in-

tended to be personal. His idea was that if Mr. Eddy was so well off, that he could go on without any regard to the condition of the market, then there was no necessity for belonging to this association; but if he did belong to it, he could not expect him (Mr. Currier) and others to be bound differently to what Mr. Eddy was. Mr. Eddy thought it well to reduce the manufacture of lumber, but let others do it, not himself. Mr. Eddy could make money by carrying on his business, in spite of the depression in the market. Why could not others do it also? But he (Mr. Currier) believed that none of them could continue as they were doing with profit.

Mr. Rochester said it was a matter that should be thoroughly understood before they departed. It was quite evident that there was a misunderstanding about the agreement. His own name was not yet attached to it, but he was of the opinion that he was as much bound by it as a member of this association, as if he had signed it. He did not know anything about Mr. Eddy's or Mr. Currier's business, but circumstances did alter cases to a certain extent. He considered that under the circumstances, some little difference should be made in Mr. Eddy's case.

Mr. Smith said when he was here before, it was understood that the agreement was to be carried out in good faith by all parties. The Peterboro' lumbermen, trusting in the good faith of the Ottawa men, had reduced their operations one-half, and some of them even more. He considered they were all bound to carry this out in good faith, and if not, the sooner they broke up the association the better, and the less the Peterboro' lumbermen came to Ottawa the better. He was surprised when he came here to find that there was not a quorum, and if it got abroad that the Ottawa men were breaking faith, it would immediately lower the price of lumber

in the Albany and Troy markets. It had gone the rounds of the whole press of the country, that there were three hundred millions feet of lumber at Ottawa awaiting shipment. He believed this statement was greatly in excess of the actual amount. (The mistake arose from the fact that in telegraphing, the word "valley" was left out. The estimate was made for the whole Ottawa valley and not for Ottawa city alone.)

Mr. Currier moved, that with a view to the practical carrying out of the system of curtailment in the production of sawn lumber for the current year, it is hereby agreed that night sawing be discontinued in the season of 1875, except in certain cases where the manufacturer may prefer to cut night and day, in which case the time of sawing shall be reduced to one-half the usual number of days. There were some gentlemen engaged in the manufacture of lumber in this section, who had been in the habit of sawing in the day time only, and others adhered to the system of sawing day and night. He thought it would be reasonable if they would discontinue the night watch, except in cases where the mills could not saw at all in low water.

Mr. Perley said, as a general thing, they were beginning to adopt this course as a matter of self-interest. The less lumber they turned out the more money they should make. If that was to be the basis of their action they were bound to carry it out. If a man thought he could make more money by sawing all the boards he could, then he had better not join this association.

Mr. Ulyot said this resolution would not secure the desire of this meeting, as the large mills would saw more in the day time than the small ones would by running day and night.

Mr. McLaren thought he could easily point out a gentleman who didn't live very far from Ottawa, who

discontinued night sawing, but set to work and built another large mill, sawed only in the day time and turned out more lumber than ever. (This caused a general laugh against Mr. Perley. He (Mr. McLaren) was only putting men enough into the woods this winter to make half the quantity of lumber he cut this season, although he intended to run one of his mills night and day.

After some further debate Mr. Ulyott moved an amendment that this association fully agrees with the resolution passed at the last meeting as to the reduction of logs during the coming season, and that all parties will faithfully carry out the said reduction of one-half.

This amendment was carried after some conversation, in which it was admitted that after all it would have to depend materially on the honor of the lumbermen themselves.

Mr. R. W. Cruice was appointed secretary and treasurer of the Association, and Messrs. Currier and Rochester were authorized to obtain an act of incorporation for the Association, after which the meeting adjourned.

AMERICAN WOODLANDS.

In discussing the distribution of American woodlands, Prof. Brewer says that though Maine is the great source of pine and spruce lumber, the hard wood species predominate in that state. The wooded area of New England is not diminishing, but the amount of sawed lumber is lessening—an indication that the trees are cut younger. In the Middle States the wooded area is sensibly and rapidly becoming smaller. The New England and Middle States furnished hard wood trees; in the South-eastern States, from Virginia to Florida, is a belt of timber which supplies the hard and yellow pine; and the northwestern region contains immense areas of common pine. From the Gulf of Mexico to the Arc-

tic Ocean stretches a treeless area three hundred and fifty miles wide in its narrowest part, and eight hundred and fifty miles wide on our northern boundary. West of this region is the narrow wooded Rocky Mountain region, and west of this is the barren region of the Great Basin. On the Pacific coast are some of the noblest forest regions of the world; and official government reports say that the forests in some parts of Washington Territory are heavy enough to "cover the entire surface with cord-wood ten feet in height."

A SOUND VIEW OF THE SITUATION.

The *Stillwater*, (Minn.) *Messenger* quotes the subjoined article from the *Dubuque Herald* with this remark. While we would gladly see the price of lumber such that manufacturers and dealers could expect and receive a reasonable return for their labor and capital invested, we are not sure that the depression which has been felt so sorely for two or three years, and which is growing worse from year to year, will not have a more permanently beneficial effect on lumbermen than if the seasons had been good, thereby compelling them to decrease the yearly crop of logs and lumber:

The market last week showed a slight improvement over the week previous, both in the yard and shipping trade. In the water business is dull enough and no sales, we believe, were made during the week. A Black River fleet from the La Crosse Lumber Company was here, offered at \$10 but finding no buyers passed on. Reed has a million or so Chippewa which he is offering at \$12.50 mill run, and \$13 for all strips. He has also a choice lot of upper Wisconsin for sale. Knapp, Stout & Co., and I. K. & Day have fleets in, to yard or sell, in the water. They are asking \$12.50. An outside Chippewa fleet, owned by Carmichael, was here Saturday, for which \$11 was asked.

Late rains have swelled the streams above and given a good stage of water in the Chippewa. The Wisconsin was

very low, and it will take considerable of a rain to let out any great amount of lumber.

On Friday evening the Iowa Lumber Company shut down their mill for the season. Pelan & Randall will run till cold weather, as we believe will also Clark & Co.

Mr. Hosford, of Clinton, president of a mill company there, was here Saturday. He reports the mills all running but business dull. He thinks there is no more lumber on hand than would supply the actual wants of the country, if only prices of wheat were a little better.

The lumber convention at Saginaw last week was largely attended. The situation was freely discussed and strong resolutions, looking to a material reduction in the cut next year, were passed. It is not likely they will avail much, as every operator, thinking his neighbors will do little, will himself try to do only the more that he may be ahead.

HARD TIMES AMONG LUMBERMEN

On the Mississippi river, it is about an impossibility to sell a board for cash or commercial paper. Of course this will, until there is some change, cause the lumbermen and mill-owners great inconvenience. They have plenty of cash on hand but cannot realize cash out of it.

With this state of facts existing, it is easy to foresee that a hard winter is coming, and every one has got to economize as much as possible. And where there is work, these having families dependent upon them should receive the preference. A little attention and care in this matter will save much suffering and trouble.—*Chippewa Herald*.

The WISCONSIN LUMBERMAN now circulates in twenty-four states and Canada, and has subscribers at over two hundred different post offices. Advertisers should make a note of these facts.

SAWDUST FEEDER CONTROVERSY.

THE CLAIMS OF MESSRS. SYKES & GARLAND TO BE SUSTAINED.

A Careful Review of the Subject by Mr. B. J. Brown—History of the Invention for Distributing Sawdust to Furnaces—Definition of Infringement Under this Patent.

We publish the following opinion of B. J. Brown Esq., by permission of Hon. I. Stephenson, and at the request of Mr. Garland, one of the owners of the patent. It is of interest to all mill men.

MENOMINEE, Mich., Oct., 19, 1874.

Hon. Isaac Stephenson, Marinette, Wis :

MY DEAR SIR:—In compliance with your request I have examined the claims of Garland, Ingram & Co., under Letters Patent No. 91,384 for "Improvement in Sawdust Feeders for Furnaces," issued to Samuel Sykes and Michael Garland, bearing date June 15th, A. D., 1869, and now beg leave to submit the result of such examination.

The material questions to be considered are as follows :

I.

Was Samuel Sykes the original and first inventor of the mode of feeding sawdust to a furnace through discharge orifices leading into it from above between or on the side of the boilers, thereby dispensing with opening the dampers and furnace doors in conveying the sawdust to the furnace; and is this mode fairly covered by these Letters Patent?

This question must be answered in the affirmative.

The Schedule referred to in the Letters Patent sets forth the following claim:—"I claim as new and desire to secure by Letters Patent—(I) the hoppers D. constructed as described, and arranged within the furnace above the grate B. with its discharge-orifices between the boil-

ers A. as herein described, for the purpose specified."

"The purpose specified" relates to a previous statement in the schedule, to-wit: "This invention relates to a device for feeding sawdust to a furnace without opening the dampers or furnace doors."

The mode of feeding sawdust to a furnace indicated is a "material and substantial part" of the invention in terms expressed in the Schedule.

This seems sufficiently obvious, yet that it might not rest merely upon my unaided construction of the language employed, I have submitted the point to the judgment of Peter A. Van Bergen and William E. Bagley of Menominee, and Temple Emery of Peshtigo. Upon an inspection of the drawings and schedule they concur in the views above expressed.

If this be true, then the Letters Patent are *prima facie* evidence that Samuel Sykes was the first inventor of this mode of feeding sawdust to a furnace.

Curtis on Patents, 3d Edition, Section 472 and cases there cited.

This presumption is however disputable and in an action at law for an infringement it may be shown (among other things not necessary to be noticed here), either :

That it had been patented or described in some printed publication prior to his supposed invention thereof: or

That he was not the original and first inventor of any material and substantial part thereof: or

That it had been in public use, or on sale in this county, for more than two years before his application for a patent, or had been abandoned to the public.

Sec. 61, Public Act No. 146, Laws of the United States, 1870.

Upon the validity of any one of these defences you will of course exercise your own independent judgment. I am of opinion that no one of them is maintainable.

The patent relates back to the time

of the invention, and the assignment from Sykes to Garland and himself now before me purports to have been received for record at the Patent Office, August 3, 1867. This is not very material as Bagley, Van Bergen, and Emery all agree that this mode of feeding saw dust to a furnace, was not in use on the Saginaw river, or the Menominee river until after the 15th day of June, A. D. 1869,—the date of these Letter Patent.

It is fair to infer that if not in use on the Menominee or Saginaw rivers prior to the 15th day of June, A. D. 1869, it had not been in public use or on sale in this country for more than two years before Sykest application for a patent.

I speak from personal acquaintance in saying that the lumbermen of the Saginaw river in point of general intelligence and business capacity do not yield to any body of men of equal numbers any where.

There, as here, every improvement has at once been taken up and utilized, until the saw mill in Michigan and Wisconsin, of to-day, is one of the most striking exemplars of the inventive genius of the American people.

Again—If this mode of feeding sawdust had been in public use in the United States where would it be natural to look for the evidence of it? Not to Georgia, or South Carolina, or to any part of the pine districts of the south. That section has been content slowly to appropriate the improved machinery of the north. Not to the Pacific slope which is notoriously a decade behind us in the construction of its saw mills. We would look to Maine, New York and Pennsylvania. That a labor saving contrivance so simple and yet so efficient could have been publicly used in any one of these states in 1867, without having found its way to Saginaw within two years thereafter, may be possible—it is in the highest degree improbable.

There is further evidence on this point, April 8th, 1873, Garland, Ingram & Co., commenced a suit in the District Court of the United States, for the Western District of Michigan, against the Mason Lumbering Company, of Muskegon, for an infringement of this patent. A certified copy of the record, before me shows, that the cause proceeded to a trial before a jury and that on the 5th day of June, A. D. 1874, the plaintiff obtained a verdict for the sum of \$540 and costs. The pleadings do not disclose the defences relied upon as under the practice established by the Act of 1870, notice of special defences form no part of the record, but are merely served upon the plaintiff's attorney 30 days before the trial. The defendants attorneys are not known to me, but having been employed by this defendants, in this cause, they are presumably gentlemen of respectable standing in their profession. They certainly would not have allowed a year or more to elapse from the institution of the suit to the trial without procuring proof that this invention had been in public use prior to the application for this patent if such proof existed.

The same remark is applicable to every other legal defence which might have been interposed.

There is a great variety of other circumstances tending to establish the validity of the claim of these parties, I have before me the *Lumberman's Gazette*, of March, 1873. On page 82 will be found the card of Garland, Ingram & Co., advertising themselves as "Patentees and Manufacturers of Sawdust Feeders to Furnaces," referring to a score or more of leading lumbermen of the Saginaw Valley as using them.

I have also before me a copy of the *Bay City Journal* of June 24th, 1871, containing an editorial notice of this invention. It is there said: "this apparatus was introduced into the valley last year, and was first put into the mill of A. Rust & Co." The

notice also embodies communications from the Superintendent of the mill of H. W. Sage & Co., of Wenona; from John McGraw & Co., of Portsmouth; and James Shearer & Co., of Bay City, stating that this sawdust feeder is in use in their respective mills and commending it to the attention of the public.

I have also before me a large number of newspaper notices, receipts, letters and documents to the same effect.

This mode of feeding sawdust to a furnace is now in use on the Menominee river. It was introduced in the year 1870, by Warren & Wilson of West Eau Claire, Wis., who obtained letters patent No. 91,800 dated June 22, 1869, for a Steam Generator for Combustion and conveyed the rights covered by their patent.

It remains to consider, therefore :

II.

Whether a deed from Warren & Wilson protects the practice of the mode of feeding sawdust to a furnace under consideration.

I have before me a copy of the diagram and specification of the Warren & Wilson patent, taken from the official report of 1869, certified by the Clerk of the District Court of the United States for the Western District of Michigan, which, however, does not contain a copy of the schedule. The title of the patent is a misnomer. To adopt the language of Mr. Bagley, it should more properly be described as a contrivance for super-heating steam, and introducing it into a furnace to distribute the sawdust and produce more rapid combustion. Of course such a contrivance must include some mode of conveying sawdust to the furnace as a necessary incident to its operation. Accordingly the diagram shows spouts communicating with discharge-orifices leading into the furnace on the sides of a boiler. Without a copy of the schedule it is impossible

to determine the precise claims of Warren & Wilson, but it may be observed.

1. The title of the Warren & Wilson Patent is "Steam Generator for "Combustion"—it is numbered 91,800 and bears date June 22d, 1869.

The title of the Sykes & Garland patent is "Improvement in Sawdust Feeder for Furnaces"—it is numbered 91,384, and bears date June 15th, 1869. The Sykes & Garland patent must therefore take precedence as to any substantial and material part of their invention, even if it is assumed that the claim in the Warren & Wilson schedule is broad enough to extend to any part thereof. But everything indicates that Warren & Wilson confined their claim to the device for superheating steam and introducing it into the furnace, and it is difficult to perceive how it could otherwise have received the approval of the Commissioner of Patents.

2. Mr. Emery and Mr. Van Bergen both recollect that either Warren or Wilson—when at Menominee—said they made no claim to the mode of conveying sawdust to the Furnace; they only claimed to distribute it and promote its combustion by the use of super-heated steam.

I assume that Garland, Ingram & Co., are now the owners of the Sykes & Garland patent. If so, the unauthorized practice of the mode of feeding a furnace with sawdust through discharge-orifices leading into it from above, between or on the side of the boilers clearly appears to be an infringement of their rights under this patent.

Very respectfully,
B. J. BROWN.

Subscribe for the WISCONSIN LUMBERMAN, only \$2.00 a year. The largest publication of its class, in the United States.

WISCONSIN LOG RAFTING.

A correspondent of the *Northwestern Lumberman*, furnishes that journal with a sketch of the operations of the Bay Boom, from which we make the following extract:

The "Gabe Bouck" plies between Oshkosh and Tuscon, touching at Winneconne and Bay boom. This nice little propeller gave me a pleasant ride across Winneconne Lake to the boom, which is a bay of Boygan lake with an area of three or four square miles, which is wholly used for booming purposes. The water being seldom disturbed by winds and with slow current, makes this bay very desirable for the purpose for which it is used. It is admirably laid off, and arranged with lines of spiles and a large supply of booming timber. For separating the logs there is what is denominated "the race," which is made by two parallel lines of spiles and booming timber, making a narrow passage way of 100 rods in length. On each side of this race are gaps connecting with pockets which are to receive the different logs (known by their mark) as they are passing, and we can say, no log has yet succeeded in reaching the lower end of the race, for it finds its owner's pocket somewhere above that point. Should it be without a "mark," there is a pocket designed for just such strays, and when the season is over these are sold at auction and the proceeds applied to the booming expenses, and each owner given credit in proportion to the amount of his logs.

After the logs are "pocketed," they are made into rafts by their owners, tugged down the lakes and river to the private booms, and there worked into lumber, Oshkosh alone receiving considerably over half of them, Fond du Lac the next largest quantity, Winneconne, Tuscon, Neenah, Menasha and Omro and Berlin—up the Fox river—the remainder.

There are eighty different marks in the boom. Quite a number of parties are engaged in logging only, and sell to the mills below. From 1,500,000 to 2,000,000 feet of logs of logs are pocketed daily. Seventy-five men are employed on the race during this work.

The capacity of this boom is 70,000,000 feet. There four others above, and within eight miles, with capacity as follows: Boom Island, 3,000,000; Merton Boom, 8000,000; Snyder Boom, 4,000,000, and Old River Boom, 5,000,000. The latter is on the old river, below the race that connects the Wolf with the head of this bay. The old channel makes into Boygan Lake about a mile west of Bay Boom.

The number of old and new logs respectively up the Wolf and its branches, this spring, were 40,000,000 and 125,000,000 feet, giving a total of 165,000,000, and divided among its tributaries of follows:

Little Wolf.....	33,000,000
Embarrass.....	25,000,000
Chioce.....	30,000,000
West Branch.....	10,000,000
Red River.....	11,000,000
Shawno Lake.....	4,000,000
Main Wolf.....	50,000,000

The head of a drive of 65,000,000 feet of logs came into the boom a few days since. It is about seventy miles long, the rear being in the vicinity of Shiocton. H. H. Rich has a drive of 5,000,000 feet still above this on the way down. There is also a drive of 10,000,000 feet in the little Wolf, which will probably wait until the last drives shall have passed. One million feet will be hung up this season, and that is on the Embarrass river. Since logging commenced on the Wolf there has never been a season with as few logs hung up as the present.

The number of men employed on the river above mentioned, as drivers and raftsmen, annually, are from 750 to 1,000. The upper waters require about six men to the million feet, which number diminishes as the

streams increase in size and depth of water. For the lower Wolf, one or two men per million feet is sufficient.

ABOUT NEW SAWS.

The Test at Cincinnati—Williamsport Manufactures Ahead.

The following account is from the Cincinnati *Trade List*:

The saw test was the great feature of the exposition yesterday, and attracted the undivided attention of hundreds of people, although remarkable progress was not made. Messrs. Hogan & Sowden's saw, the first tried, was sprung by the heavy feed and slipping of belts. We learn the feed was $5\frac{1}{2}$ inches, which, for tough timber and a thin saw, was an effort to realize very great expectations indeed. The saw is a beauty, and when placed upon the mandrel excited the admiration and favorable comment of all good judges. The initial line was splendidly cut, the fine blade running through with a whir of triumph which seemed to proclaim victory in the clear ring of the steel. Nobody anticipated the trouble which ensued, and when the keen blade stopped just after the commencement of the second line, there was a shadow of disappointment upon every countenance. It was ruled out of the contest inevitably, because there was no hope for it after the terrible wrench it experienced.

Mr. Andrews indicated his impression of the seat of difficulty by contending, when his saw was brought forward, that the mandrel should be taken out and tested, to ascertain if it had been sprung. It was accordingly taken to a machine shop for this purpose, and whatever may have been found wrong about it will assist in correcting the record of Hogan & Sowden, and in giving them an opportunity for a second trial, which

they should unquestionably have, and to which their fellow exhibitors, who thoroughly understand the difficulties they had to contend with, will unanimously consent. The *Enquirer* of this morning says: "Hogan & Sowden's saw pegged out." It showed vastly more keenness than the average newspaper editor, before it was disabled, and was as sharp as ever, even when "sprung," which is not the fact with the model *Enquirer* attache.

The test was continued this morning at 10 o'clock, with the saw entered by Mr. Andrews, of Williamsport, Pa., which showed good work on the experimental log, and on the actual test sawed a poplar log into 16 good boards, one inch thick and 12 feet long, in two minutes and fifty three seconds. This was accomplished by a $3\frac{1}{2}$ inch feed, and is looked upon as splendid work. It was found this morning that the mandrel had not been sprung, but that the solid collar was twisted or otherwise injured, which was remedied, and the machine works smoothly.

Right at this point the exhibitors were called together to decide whether they would allow Messrs. Hogan & Sowden to test another saw—this firm having one in the building which they desired to try in the contest. Mr. J. W. Baldrige presided, and after a pleasant discussion, which developed the highest degree of good-feeling among the saw manufactures, Messrs. Hogan & Sowden were unanimously granted the privilege of another trial, to follow the test of the saw entered by Mr. Andrews, which at this stage of the proceedings was on the mandrel preparatory to cutting the oak log that was selected to complete the test of this entry.

After the discussion of some technical matters by the saw men, among which were the peculiarities of different patterns of saw teeth, and objections to various kinds of saws in competition, the exhibitors and judges

returned to their mutton and the concluding brush with Mr. Andrews' saw.

During the meeting, the dresser had put the teeth in good condition for a contest with oak, and the saw, with an excellent start, held its own to the end, and cut 11 oak boards and one plank, 12 feet long by 15 inches wide in exactly two minutes. This was looked upon as splendid execution, and Mr. Andrews received the warm congratulations of his good humored competitors.

THE SHAWANO RAILROAD.

This railway project, so favorite an one, so long projected, and yet so often interrupted, still has so decided merits and seems so easy of consummation, that it will not and should not be given up. There is every reason to believe that but for the general prostration of all new railway enterprises which has for various causes set in this year, our Shawano road would now be in course of active building and perhaps be completed. Brown and Shawano counties, which some two years ago voted solid aid towards it, have already extended the time to the 1st of January next, in which that aid would be rendered, but as it is now too late to render its accomplishment possible before that time, the question is submitted for consideration whether that time had not better be further extended through the coming year. We all hope that by the opening of another year our financial embarrassments will have worn off, and trade in every department will have resumed its usual vigor. Then we shall want connection with the country in every direction, and none is more important than the region northwest of us. We commend this important matter to the county boards of this and Shawano counties, and trust they will see the importance of renewing the aid through another year.—*Green Bay Advocate.*

FRUIT CULTURE IN FLORIDA.

But very little capital is needed for the starting of a grove, and the rewards of a successful one are very great. Oranges sell at from \$25 to \$68 per thousand in Jacksonville, and are readily transportable to any of the Atlantic seaports. When the necessary dredging and building of canals has been accomplished, so that the Indian river may have an outlet via the St. John's, the north will be supplied with oranges of more delicate texture than any it has yet seen; and the number of groves along the river will be legion.

The fitness of Florida for the growth of tropical and semi-tropical fruits is astonishing. Not only do the orange, the lemon, the lime and the citron flourish there, but the peach, the grape, the fig, the pomegranate, the plum, all varieties of berries, the olive, the banana, and the pine apple, grow luxuriantly. Black Hamburg and white Muscat grapes fruit finely in the open air. The Concord and the Scuppernong are grown in vast quantities. The guava, the tamarind, the wonderful alligator pear, the plantain, the coconut and the date, the almond and the pecan, luxuriate in southern Florida. We have within our borders a tropic land, rich and strange, which in future years will be inhabited all winter long by thousands of families, and where beautiful towns, and perhaps cities will spring up.—*Edward King, in Scribner's for November.*

George Robinson, has sold his shingle mill property at Manistee, Mich., to Dr. Mead, Perry Russel and Mr. Currier all of that city for 13,000 dollars. These gentlemen have taken possession and propose to improve and enlarge the business.

LUMBER AND ITS USES.

THE MODEL ESTABLISHMENT OF SANGER, ROCKWELL & CO.

Growth of Milwaukee's Lumber Trade—The Central Feature of the Menomonee Marsh—A Description and Financial Sketch of a Great Wood Working and Lumber Concern and Its Proprietors.

From the Milwaukee Journal of Commerce.

In spite of the general depression of the lumber trade throughout the country for the past two seasons, Milwaukee has exhibited as great an improvement in this branch of business as in most others. The number of yards and dealers has largely increased. It is safe to estimate the amount of lumber handled this year as nearly twice as great as that during 1872. Dockage and transportation facilities have shown a corresponding improvement. The principal theatre of progress has been the district known as the Menomonee Marsh, about the foot of 6th Avenue. This territory, and especially Park street, has been so changed by the foresight of a few proprietors and the judicious expenditure of capital, that its most intimate acquaintances of three years ago would hardly recognize it. Park street displays eight heavily stocked lumber yards and four important factories. The establishment of Messrs. Sanger, Rockwell & Co. is the central feature of the region. It comprises a very extensive planing mill and sash door and blind factory together with large yards and dockage facilities for handling lumber. There are two yards, one 230x275 feet and the other 130x275 feet in area, fronting on the canal and furnished with a branch track from the Chicago, Milwaukee & St. Paul R. R.

THE FACTORY AND MILL

are accommodated in large and handsomely designed buildings of cream colored face brick. The main factory is 80x110 feet, the planing mill 30x40, and the sales room 60x70. The interior presents a most animated spectacle. It is alive with the hum of multitudinous machinery, and the bustle of the 250 hands by whom this is attended and regulated. The admirable order prevailing denotes the presence of systematic and business like management. Among

THE ITEMS OF MACHINERY

in operation are cross cut and rip saws, resawing machines, single and double

surfscers, planers and matchers, upright mortisers, sand papering machines, moulding machines of many varieties, scroll saws, turning lathes and innumerable other devices for shaping, carving, dove-tailing and rebating. In one of the departments there is a sort of universal machine, invented by Mr. Boulton of Michigan, which does almost everything in the way of shaping, dadoing, relishing and dove-tailing with equal ease. The machinery in

THE SASH DEPARTMENT

comprises tenoning machines, upright mortisers, sash mortisers, relish machines, clamps and five stickers or moulding machines.

Every variety of newel posts, balusters and hand-railing is also manufactured. A large force is constantly employed on stairs and stair railing. Mr. Wm. Wood, the head stair builder, graduated in London and is a first class man in every particular.

In spite of the prodigious quantity of material daily cut up and dressed, the premises are characterized by an appearance of perfect neatness, which is secured by the use of five large exhaust fans. The exhaust fan is an arrangement of pipes and revolving blowers by which suction enough is created to draw off the dust and refuse, which would otherwise clog the machines, to a common receptacle. As this receptacle is of fire proof construction, the most threatening source of danger is thus got rid of at the same time.

FIGURES.

One would naturally suppose that the amount of lumber worked up with facilities of this kind would be immense, and so it is. Some 4,000,000 feet are disposed of annually, and from 1,000,000 to 4,000,000 feet are kept constantly on hand. It is turned out principally in the form of doors, blinds, sash and stair railing. These are 200 doors, 500 windows and 50 pair of blinds finished daily. The planing mill turns out 100,000 feet of flooring, siding and dressed boards per day. There is besides an immense quantity of smaller and fancy work.

Messrs. Sanger, Rockwell & Co. make

THE DRYING OF LUMBER

a matter of the utmost importance, as it should be. The flimsy and disreputable practice of steam heating and drying which takes all the vitality out of wood, they never indulge in. Their stuff is honestly exposed to the weather

in piles of from six months to a year. The dry-house in which the process is completed contains eight compartments, each capable of accommodating from 12,000 to 15,000 feet. In consequence of this care in the preliminaries the firm are able to guarantee their goods. An idea of the stock of material required may be approximated from the single item of glass of which from 2,000 to 3,000 boxes are kept on hand, while seven glaziers are constantly at work.

The trade of Sanger, Rockwell & Co., extends to eighteen different states and territories. Its limits are Duluth on the north, Denver on the west, Mobile on the south and eastern Pennsylvania and New York state on the east.

CARGO LUMBER.

An important and growing feature of the business is the receiving of cargo lumber for country customers, which is afterwards sawed and dressed in any way desired before shipment.

The pay roll of the establishment is \$7,000 a month and the annual sales amount to \$250,000.

PERSONALITIES.

The firm by whom the business thus briefly sketched is conducted consists of three members each distinguished in his way by prominent traits of character.

Mr. C. M. Sanger, the senior, is widely known as having been president of the Milwaukee Hide and Leather Company, and as one of the most conscientious, vigilant and able legislators both in our city government and the state assembly. Mr. Sanger is the right sort of a man for the state senate or for congress. His executive ability in business matters is unsurpassed.

Mr. Moss is the inventor and general mechanical genius. He is full of practical inspirations which are invaluable to the concern.

Mr. H. H. Rockwell is a keen, enterprising, gentleman, and a model of devotion to a business with which he is thoroughly acquainted in all its parts.

As a whole the firm is one of the ablest and strongest in the city. Under such management and with such a start this department of the lumber trade of Milwaukee may be expected to attain a much greater measure of prosperity.

THE UNION LUMBERING COMPANY'S YARD A MUSCATINE.

It is no small compliment to the shipping facilities of this point, that an interest of the character and capital of the Union Lumber Company should select Muscatine for their great depot on the Mississippi, and indeed for the site of the only branch of their business in the west. We may congratulate ourselves not only upon the additional prosperity upon which the vast transactions of this city will give to our city; but also upon the advantages offered by Muscatine for a business of this magnitude ore beginning to arrest the attention of the country.

The principal place of business of the Union Lumbering Company is Chippewa Falls. Here is situated there great mill which last year cut 52,000,000 feet of lumber, and which has been throwing off over 8,000,000 feet per month this year. Back of the great mill lie the 80,000 acres of timber land which feed the maw of this monster. At Chippewa Falls, also, is the company's store, which sells annually over \$400,000 of general merchandise. Here, too, is their new shingle mill, having a very large capacity it being intended by the company to make the manufacture of shingles a specialty in their business. This is the business, and this the business, whose only depot in the west has been located in Muscatine.

The company purchased Mr. Oliver W. Eckel's lumber yard and business, in this city, last October, 1873. In the year just closing they have sold over 9,000,000 feet of lumber, and extended their trade into Missouri, and far-away Kansas, in this time, also, the sales here have sustained the well-earned reputation of their mill for turning out lumber of the first quality of manufacture.

The force employed by the company is 300 men at the falls, and

Subscribe for the WISCONSIN LUMBERMAN, only \$2.00 a year.

from 25 to 30 at this point. Governor Pound, of Wisconsin is president of the company. Mr. Van Name is agent at this place since the retirement of Mr. Kessinger on the 9th inst. The new agent, we are glad to learn, is pleased with Muscatine, and will reside here. Mr. Cleveland, the genial and talented book-keeper of the company has resided in our city a year, and is already counted as a host in our social circles.

The latest arrival is Homer Pound, son of the president, who we hear will make Muscatine his home.

The Union Lumbering Company takes its place among the most important interests of our city.—*Muscatine Journal*.

HOW TO CLIMB TREES.

Somebody, who probably knows, says :

In South America even the weakest may be not uncommonly seen plucking the fruit at the very tree tops. If the bark is so smooth and slippery that they cannot climb they use other means. They make a hoop of wild vines, and putting their feet inside they use it as a support in climbing. The negroes of the west coast of Africa makes a larger hoop around the trees, and gets inside of it and jerks it up the trunk with his hands, a little at the time, drawing his legs up after him. The Tahitian boys tie their feet together, four or five inches apart, with a piece of palm bark, and with the aid of this fetter go up the cocoa nut palms to gather nuts. The native women in Australia climb the gum trees after opossums. Where the bark is rough they chop holes with a hatchet ; then one throws about the trees a rope twice as long as will go round it, puts her hatchet on her cropped head, and placing her feet against the tree and grasping the rope with her hands,

she hitches it up by jerks and pulls herself up the enormous tree almost as fast as a man can climb a ladder.

MIDDLEMEN AND FARMERS.

One of the good results of grange and other farm organizations is to teach farmers the necessity for and the true relations to them of middlemen. There has been a great outcry against this class. This outcry has some foundation in the fact that in many instances they have been greedy and unscrupulous in their dealings with farmers. It has been a healthful lesson to them that farmers have combined to select their own middlemen, and thus learn precisely what may be done by honest men, and wherein they have been imposed upon and the nature of the remedies to be applied.

But the farmers are wiser for having learned the obstacles their selected middlemen have had to encounter, and the difficulty to be overcome in the conduct of this class of business. The risks the independent middlemen are compelled to take, the perishable nature of many of the articles they are compelled to handle, and the fluctuating character of the demand for the same, have been realized by the farmers as it never would have been but for their experiments in conducting this branch of business for themselves. Accordingly there will hereafter be a better and more general comprehension and appreciation of the services of an honest middleman on the part of the farmers of the country.—*N. Y. World*.

The WISCONSIN LUMBERMAN now circulates in twenty-four states and Canada, and has subscribers at over two hundred different post offices. Advertisers should make a note of these facts.

THE NATIVE PERVERSITY OF LUMBERMEN.

If the idea that there will be a considerable falling off in the amount of logging to be done this winter should prevail among lumbermen, there is no doubt but the actual work accomplished in that line would really exceed that of last winter. There is no doubt but what a general idea prevailed last fall, that there was to be a shortage in the log crop; and the idea was the cause of many millions more of logs being got in than there would have been if no such idea had prevailed. If a lumberman believes that there will be but few logs, comparatively, put in, he very naturally believes that the prices of lumber the next season will be advanced; therefore he will use every endeavor to increase his own stock. Many individuals believe that the approaching winter will be a difficult one in which to log successfully, and that the proportionate cut of logging will be very small. Every person who so believes will go the full length of his means in logging this winter. As a result we shall probably have more logs cut this season than there were cut last, and the prices of lumber in 1875 will be but a repetition of those of 1874.

We grieve to own it, but the fact cannot be dodged: the only way to successfully influence our honored constituency, the producers of lumber, is to turn them, like the mule, tail towards the objective point, and then—tell them to go ahead!

A Frenchman has invented a method of sawing the heaviest wood by a platinum wire raised to a white heat.

BIG FISH AND LITTLE.

The argument of our Detroit correspondent, "INQUIRER," cannot fail to strike the thoughtful reader. Small loggers and manufacturers can't put a stop to their activities if they want to, and big ones don't want to. This is his double proposition. Hence there is little use in such journals as the WISCONSIN LUMBERMAN arguing and warning against over-production. The evil must go on to its inevitable end.

We admit the force of this reasoning, yet we hold it none the less our duty to warn and to protest. We hardly hope for any adequate remedy until the big manufacturers shall have succeeded in reducing the scale of prices to a point that hurts themselves. Then those who can (the big manufacturers) will stop production and the trade for all will revive.

It is, to our view, just as plain that large manufacturers cannot afford to go on at their present rate as it is that small ones cannot afford to stop. But this is a lesson which they must learn by most expensive experience for themselves. We can hardly hope that they may acquire the lesson at no greater cost than the subscription price of the WISCONSIN LUMBERMAN.

A number of gentlemen connected with the Wisconsin River Improvement Company, and heavily engaged in the lumbering business, visited Grandfather Bull Falls recently, for the purpose of seeing what could be done in the way of improvement on the same. They state that between 7,000,000 to 8,000,000 feet of lumber in the log, are laid up on these falls with no possible means of removing them without danger to life.

"A DESPERATE REMEDY."

The *Green Bay Advocate* has a leading editorial article upon the same subject which formed the basis of an important communication to the October number of the WISCONSIN LUMBERMAN, namely: the breaking down of the lesser manufacturers of lumber that the trade might be in fewer hands and therefore more easily controlled. The *Advocate* speaks of the fact that the matter is being seriously discussed among the larger mill-men and says:

It is stated, with some show of authority, that the principal operators in Michigan pine property, mills and timber, have been discussing among themselves the proposition, if they have not come to an actual agreement to place on the market, within the next few weeks, a large amount of lumber at very low prices such as must entail on themselves and others a heavy loss. Their own resources will them enable, they think, to stand the consequent drain on them, and they hope to make it up hereafter. The immediate result, they intend and expect, will be to break down the market, to stop the small operators for the present, for this season at least, and they hope permanently, so that this competition will be removed. They aim also to curtail largely the winter's crop of logs by the discouragement consequent on a sudden and heavy decline in a market already dull and stagnant. The result might be, and this is their thought, that, with a short crop of logs and the suspension or failure, and closing up of many small concerns, prices would rally and the business of next season be such as to more than reimburse them for temporary loss.

There are several fatal defects in this plan. The first one, which will strike the average sense, is that it is

dishonest. It is a combination of capital against honorable labor, and ought to be defeated on that account.

But there is another, of a more practical nature, and vastly more potent. The smaller mills of the country are really the strongest. They generally do business on their own capital, and their owners can afford to lay up during dull seasons. They owe little or no money, and are not obliged to run. On the other hand, the larger concerns are, as a rule, dependent upon loans to keep up their operations, and are generally obliged to run, be the season a good or bad one, in order to meet their paper as it comes due.

By all means the soundest, as well as the most honorable, plan to be adopted in this case is for the mill men, large and small, to join in a mutual agreement to lessen the production for the coming year. This plan would bear equally on all classes of mill men, unite them in a common effort for relief, and being mutually fair would be mutually adhered to.

A VOLUME OF LUMBER STATISTICS.

Messrs. Judson & Dicey, publishers of the *Northwestern Lumberman* use page 180 of the WISCONSIN LUMBERMAN to inform the trade that they are about to issue an exceedingly valuable and unique volume of lumber statistics. This work is very nearly completed and subscriptions are now in order. The volume, which is to contain over a hundred pages and to be elegantly printed and bound durably in cloth, is offered at the low price of 75 cents. As a guarantee of the merits of the work the publishers offer to refund the subscription, to any subscriber who does not pronounce the volume worth five times its price. We know enough in advance about this work to heartily commend it to our readers.

SUGGESTION TO MILL AND LAND OWNERS.

There are, to-day, in the state of Michigan alone, tens of thousands of acres of pine land that have been "stripped" of their large lofty pines, and the smaller, though not inferior in quality, remain standing, and both they and the lands are now considered by their owners nearly worthless, and one-third or one-quarter of the original amount paid for them would be gladly accepted by the owner, provided he could get such an offer. How strange that parties cannot see upon these lands, even though the giant trees are removed, and the smaller ones though of just as good material are still remaining, that there is yet as much, yes, more money, by far to be made from these "remnants" if proper machinery and work was brought into requisition, than was made by those who suppose they have taken the last cent there was to be made upon them. To speak to the point, we would say, that without doubt the pine lands of the state of Michigan that have been "lumbered" upon and are now considered valueless will ere long, become the great stronghold of the wood working community; as all that is necessary to make every log and every stick of pine, no matter what its size or dimensions, bring a large and remunerative profit to owners, is to simply put the proper wood-working machinery in motion, and every stick could be so used in the manufacture of either doors, sash, blinds, etc., that would bring to the owner of every acre of pine land, ten times the amount of profit realized by him in his lumbering. There are in this state hundreds if not thousands of saw-mill men who have all the necessary power to drive any number of wood-working machines, and for want of logs of the proper size to make into lumber, are letting their engines and machinery remain idle half and two-thirds of the entire time, ruining their machinery and

doing themselves no good. Why cannot these parties see that by a small investment in proper machinery, which would convert this unsaleable timber and lumber into doors, sash, mouldings, brackets, blinds and other articles which there is, and always will be, an endless demand for, that a larger return and profit would be sure to follow. Considering the large profits to be derived from the manufacture of these articles, and taking into consideration the fact that the most of the raw material would cost either a nominal sum, or nothing at all, we can but think that this locality where the quality of the pine is so superior, will soon become the great centre for the manufacture of the articles mentioned. Will not our readers who have spare power which they can use, or those who own lands as before described, act upon our suggestion, and thereby bring into use the large quantity of unsaleable material, and at the same time enrich their own purses?

—*Lumberman's Gazette.*

A NEW LUMBER TOWN.

Mr. H. W. Remington informs us that he has just started a new town and a new mill at Mill Grove, on the Wisconsin Valley railroad, six miles southwest of the town of Remington, for the purpose of manufacturing Norway pine into dimension timber and lumber. He designs to make timber a specialty in this mill and will cut only to order. The capacity of the mill is 15 M feet per day.

Our admirable cotemporary, the *Boston Lumber* has added to its name the words "*And Builders' Weekly.*" It has special facilities for enlarging its field in this direction, and will no doubt increase its usefulness in doing so.

OUR LUMBERMAN'S REGISTER.

Readers will notice the omission this month of the "Lumberman's Register," which we have been slowly perfecting at considerable expense and which has come to be considered an important feature of the WISCONSIN LUMBERMAN. We have by no means abandoned our purpose of giving the only really comprehensive and exact classified directory for the lumber trade of the northwest. The "Lumberman's Register" will be published, with constant corrections and extensions, in the *last* number of each semi-annual volume of the WISCONSIN LUMBERMAN. Experiment has convinced us that the republication of so spacious a directory with every monthly issue of this magazine is an unprofitable use of space that may be better employed. We therefore invite our friends to continue to send us, as they have been doing, information for the Lumberman's Register and to aid us in our efforts to make it as nearly perfect as so vast a directory can be made.

GANG MILLS WITH THE PENDULUM MOVEMENT.

Among the advertisements beginning with this issue, the reader will notice that of the "Fulton Iron and Engine Works," of Detroit, Mich., on page 181. This well-known company recommend as a specialty to the lumber trade their Pendulum Oscillating Adjustable Movement for gang saws. It has received the unqualified indorsement of the best practical judges, and will therefore command the attention of all lumbermen who wish to keep pace with the improvements in their business.

IMPORTANCE OF LUMBERMAN'S LITERATURE.

It is gratifying to know that lumbermen are giving more attention to lumber statistics and lumber literature. The support given the lumber journals, the communications forwarded, and the readiness with which the trade responds to all reasonable calls to contribute to the building up of this branch of literature, are encouraging. Yet there are a few, still, who have not been sufficiently aroused to the importance, to them, of being informed in the doings and condition of the business in which they are engaged, as it is given in a condensed and compiled form in the journals devoted to this trade. We know of parties who have received these periodicals regularly and yet have tossed them away without even breaking the wrappers. This indifference borders on criminality. It is not supposable that any periodical, conducted with the least ability, in use, in journalism, would not contain some matter of interest to the reader. We do not claim that every article contained in our journal, or any other, should be carefully read by each subscriber. Our matter is varied with a view of meeting the tastes and interests of a large number of subscribers, and we believe that when a periodical, especially devoted to a man's line of trade is habitually tossed about without a glance at its contents, he commits just as great an error, as neglecting any other branch connected with his business. The lumber dealer takes his daily walks through his yards, with no other object, perhaps, than to ascertain the condition and needs there, and seldom returns without having discovered something of importance, requiring immediate attention. So it is with the lumber journals, he does not know what they contain until he has examined them and we do not hesitate to make the assertion that the same walk through any of the lumber periodicals will reveal matter

of importance and interest to the dealer, which affects directly or indirectly, his business.

We have observed one fact, that the head clerks and superintendents are often much better read in lumber literature, than the proprietors themselves. This is accounted for from the fact that the employee is ambitious to faithfully serve his employer, and he seeks knowledge in the business and naturally turns to this literature for information; and we have noticed, too, that those clerks who have the confidence most, of the proprietors, are the best read up. The mill-owner or lumber dealer is little aware that the valuable hint received from his book-keeper was obtained from the journal that he had brushed from the desk as an intrusion.

It is just as important that the offices of lumber dealers be supplied with the literature of their trade, to be read by the clerks, superintendents and foremen, as it is for a family to be furnished with the general reading matter of the day, or the merchant with his price current.—*Northwestern Lumberman.*

FLINT AND PERE MARQUETTE RAILROAD.

By the 15th of this month the flint & Pere Marquette railway (from Ludington to Buffalo) will be finished, making the route from Appleton to Buffalo, 150 miles nearer than by any other route. Ludington Harbor on Pere Marquette Bay, is one of the finest harbors on Lake Michigan, perhaps the best on the east shore of the lake. It is rarely obstructed by ice during the winter months; far less than Grand Haven, or any other harbor south of it on that lake. The Flint & Pere Marquette railroad Company has already commenced the construction of an elevator and extensive docks for their own use, with a view to the prospective business of Wisconsin and Minnesota. Undoubtedly an arrangement will be perfected within a few

months at most to place two steamers on that route, each making a daily round trip from Manitowoc and Sheboygan to Ludington in close connection with the Pere Marquette railway on the east side of the lake, and the two lines running north-westerly out from Sheboygan and Manitowoc on this side of the great lake.—*Appleton Crescent.*

NEENAH THE MINNEAPOLIS OF WISCONSIN.

The editor of the *Northwestern Miller*, who is a thoroughly practical man, and one who, as a general manager for the sale of the celebrated "Hoyt Emery Wheel Mill-stone Dresser," has traveled over nearly every state in the union, gives this promising city the following handsome compliment:

Second to the great water power at Minneapolis, Minn., is that of Neenah, Wisconsin.

Neenah lies at the foot of Lake Winnebago, in northeastern Wisconsin, on the western bank of Fox river, which is the outlet of the lake. For the first mile from the mouth of the lake down the river there is a fall of about fifty feet, which forms a sort of rapids, and it is along this rapids that the manufacturing district of the city of Neenah lies. There is a dam built across the river a short distance from the foot of the lake, and from this dam two canals run the entire length of the city, and the mills and factories are built between these canals and river, and take their supply of water from them. There are at present, eight flouring mills, four very large paper mills, three foundries, two saw mills, shingle and planing mills, sash door and blind factories, and a large number of cooper shops, stave factories, iron works, etc.

Although the power is ample and not more than half utilized by the present occupancy, there is already felt a serious lack of building room. This lack, however, can easily be sup-

plied by the use of wire cables to transmit the power from one locality to another, and it is a matter of surprise that this has not already been done. In this manner every pound of the water may be used to the great advantage of the city. As it is, however, there is no city in the state more prosperous, nor burdened with fewer idle people.

The *St. Louis Commercial Gazette*, in answer to an article upon Bois D'Arc timber, and a request for information in regard to the same, receives the following communication.

MEXIA, LIME STONE CO., TEXAS,)
October 20, 1874. }

Having read an article in your valuable paper upon the good qualities of the Bois D'Arc timber for wagon and carriage material, I have felt it my duty to Texas to say "what I know about Bois D'Arc.

In my many years' experience in wagon making, and close attention to the various qualities of wood to secure the best, the best white oak and the toughest southern white hickory have proven inferior to this excellent material. Hickory will shrink and rot in less than five years if exposed to wind and water. White oak will take from two to four years to season properly to put in a wheel. It will shrink after the most careful seasoning, so that the tires will have to be shrunk after a comparatively short period of use in our climate. The Bois D'Arc will do to work in a wheel in three months after felling the tree, and, if a black locust hub is used, will stand the severest southern sun and wind for twenty years without shrinking. The Bois D'Arc is bound to supercede all other wood for carriage and wagon wheels in the south.

Yours, etc.,

JAMES R. JOHNSTON.

The *Williamsport Register* says:

The Lumberman's Exchange at

the last meeting took definite action on the railroad freight question, by appointing a committee of the most active and influential members of the organization, to confer with similar committees from other organizations, the ultimate object being to have concerted and formidable action taken to stop the discriminations which at present are so manifestly unjust. This movement indicates that the lumbermen do not mean to quietly submit to imposition, and that, though they may proceed deliberately, the pressure they will be enabled to exercise, will show the railroad corporations the importance of considering their rights, and properly respecting them.

THE WOODEN SOLE MANUFACTURING COMPANY,
(LIMITED.)

This is the name of a company now being organized in this city, with a proposed capital of \$100,000 in shares of \$100 each, having for its object the purchase from the inventor, Mr. W. S. Hunter, of the patent for the Dominion, and one-half the right for Europe (the other half being reserved by the inventor,) for a new method of making boot and shoe soles of Wood. "There's nothing like leather," we have often been told; but "timber" seems likely to "go it one better" or else both have a desire to combine their respective merits. The invention consists in a wooden sole—which is attached to the ordinary leather uppers—but in two parts under the instep, between them being placed an india-rubber water-proof joint, the outer wooden edges being fastened together by a moveable iron clasp; the heel is also of wood, and a part of the solid sole. By this invention a free and elastic movement is said to be given to the foot in walking, while the boots are considered warmer, drier, and much more durable than those with leather soles could possibly be. The McMar-

tin-Hamel Company are likely to take the initiative in introducing boots fitted with these wooden soles, and the promoters of the new joint-stock organization express themselves confident that the invention will be a success in every way. As an indication of the cheapness of the sole, the prospectus states that a pair of boots of ordinary leather, which can be sold wholesale at \$1.10, would leave the same amount of profit at about 85c, if fitted with these wooden soles.

—*Montreal Gazette.*

The *Chippewa Falls Avalanche* says:

The big mill in this city, known by the name of the Union Lumbering Company's mill, has shut down some time since, for the want of stock to keep it running, and we give below their exact cut for this year, also the exact cut of 1873:

1874.		Feet.
Lumber, including culls.....		43,643,707
Lath.....		10,481,400
Pickets.....		710,750
1873.		Feet.
Lumber, including culls.....		40,885,406
Lath.....		8,619,750
Pickets.....		468,950

The *Stevens Point Journal* thinks there will be less logging this season in the Wisconsin river pineries than there has been for years.

Don't you believe it.

Our sagacious friend, Mr. Levi Pond, the hero of the famous sheering-boom controversy, has just obtained a patent on "devices for sorting logs."

The *Chicago Times* says the WISCONSIN LUMBERMAN "is probably the best publication of the kind to be found in the world."

We were lately favored with a call from Mr. W. B. Judson, the founder and editor of the *Northwestern Lumberman*.

A WONDERFUL CURE BY THE TURKISH BATH.

The extensive and perfect establishment of Messrs. Hanson & Rogers, on Fourth street, in this city, with a considerable number of gentlemen and a smaller but steadily increasing number of ladies, has now come to be considered an indispensable adjunct of comfort and health. Its fame as a curative institution is also spreading widely, in spite of the jealousy of the medical profession. Yet we venture to believe that the class who resort occasionally to these baths as a matter of luxury, because the experience is an agreeable one, or because they conceive that it keeps them in health, are only slightly acquainted with its curative attributes.

We have lately had personal knowledge of a cure through the agency of the Turkish bath of such a startling nature as to command the attention of the general public. Had it occurred by means of some new-found and costly drug, or some hazardous and painful surgical operation, there is no doubt but that the medical journals throughout the land would have signalled the performance. As, however, this singular cure was effected by that well-known, simple, rational and comparatively economical contrivance (and deadly foe to doctors) the hot air bath—it remains for this strictly commercial journal to give the particulars of the case to those whom it may concern.

Mr. F. P. Bridge, a young man twenty-two years of age, who had been clerk in a department of the city railway of Boston, the first of January last was given over by Dr. W. P. Hammond, of the Massachusetts General Hospital, and by about twenty leading physicians of Boston, as a hopeless case of Bright's disease of the kidneys. He came west in quest of the Waukesha water as a last resort, in March. He remained at Waukesha until the 24th of August, under medical treatment, but growing steadily worse. He took a

few Turkish baths in Waukesha, experiencing some relief, so that when the bath at that place closed he determined to seek Dr. Hanson's establishment in Milwaukee. When he reached this place he was apparently in the last stage of, this most dreadful of diseases. He was frightfully swollen, his legs and abdomen containing over 50 pounds of superfluous water. The urine was scant and when heated almost solid with albumen, only 14 ounces passing in 24 hours.

From the day when he reached Dr. Hanson's place—the 24th of last August—he has continued to improve. He took at first four or five baths a day. He lost 50 pounds of dropsical weight in 18 days. The urine has assumed its natural character and functions, 48 ounces instead of 14 passing each day. The young man, whom we have seen and talked with, feels and appears almost perfectly well. He is rapidly regaining the strength he lost by reason of his terrible malady. There is no gainsaying this cure of what has been heretofore considered and pronounced an inevitably fatal disease. How will the regular practitioner account for it? If the hot air bath, by imposing upon the respiratory organs of the skin the work for which the kidneys prove unequal, can allay the inflammation and restore the strength of that organ, and prevent a lingering and painful death, is it not the duty of every regular physician to study this subject, to ascertain exactly what part the hot air bath should have in the treatment of disease, and to conscientiously prescribe it to his patients even at some expense to his practice? The most eminent members of the profession in Europe, do not hesitate to recommend, in their writings and in their practice, the hot air bath for a variety of ailments, which require either the equalization of the circulation, or the artificial discharge of impurities from the blood. Will the American physician

ever become as candid and just?

If he will not, then the public must be informed, health must be renewed, life must be saved, in spite of that most stubborn of all obstacles to popular knowledge—the educated, exclusive, pig-headed, regular physician—*Milwaukee Journal of Commerce*.

SUDDEN CONVERSION OF A WISCONSIN LUMBERMAN.

W. T. Price had a narrow escape while up in Clark county. The pole to his carriage snapped like a pipe stem just as the Judge was driving over dangerous ground. One of his horses became frightened and kicked the dash-board into a "cocked hat," while the indefatigable Judge, as cool as ice in February, kicked it back again, and prepared to descend to the rocky stream below. The near horse went down, and the other rolled completely over her, while the carriage went tumbling to the bottom. The Judge sprang for life, and came up in the center of the stream with lines in hand. Not a swear was sworn during the unheard of trip. The horses came out without a scratch, and fifteen cents will settle for straps. After the excitement was nearly over, the Judge said "by thunder," at some fellows close by who hadn't the presence of mind to lend a helping hand.—*Clark County Republican*.

The Oconto papers claim that there will be double the logging done by the Oconto firms this winter that there was last. Our own advices do not corroborate the statement; yet there will undoubtedly be more done in that line than there should be.

The Beef Slough Company, it is rumored, are making an effort this winter, to purchase the finest logs that they can possibly obtain, and it is said they have already contracted for about fifty million feet of choice logs.

INDIAN FOREST CONSERVANCY.

As a recent meeting of lumbermen in America has announced the gradual extinction of timber on that continent, and given but a very few years before the face of the country is as bare of timber trees as the paper on which this is printed, it may be as well to resume and conclude the remarks already published in this journal (taken from official sources) on the timber of India. It is doubtful whether the worthy lumberman will find many to give credence to their assertion on this side the water, but they certainly ought to be the best judges, and no self-interested motives can be imputed to them. However the fact may stand, it is as well to know the resources of our own colonial possessions as far as possible, in order that the building trade may not come to a standstill in future times. There has been considerable agitation respecting the utility of girdling trees. This operation consists in cutting a complete ring through the bark and sapwood of the tree, penetrating to the heartwood. If the sapwood is entirely severed, the tree dies in a few days; but if any connection remains between the sapwood above and below the cut, the tree will revive, and sometimes the wound is entirely filled up with new bark and sapwood. Timber-cutters, therefore, take care to scoop out the sapwood from the recesses which often occur in irregularly-shaped stems. The trees thus killed are allowed to stand for one, two or three years, when the wood is sufficiently dry to float, and this facilitates its transport by water. A large piece of the wood is sometimes cut from out the stem, which considerably hastens the drying or seasoning the tree. The enormous saving of labor is thus manifest. In many cases land-carriage is impossible, and, if possible, would so add to the price as to make the timber useless for commercial purposes. Yet it will interest timber growers to know that

various Indian authorities report against the practice. Where near, or reasonably near, to its ultimate destination, all are against it. It increases heart-shake—increases the hardness so that the wood-cutters will not fell the trees unless obliged. It is stated that teak is so damaged by the practice that it sells at a very considerable discount. It increases the risk from fire. In some districts it admits the carpenter bee, which deposits eggs in the bark, and in a short time the outer wood is perforated with holes, time only being required to render the tree worthless.

The Gurhwal pine forests contain much valuable timber, and cover so large an area, that not only being able to supply the entire wants of the East India Railway, they have aided in the supply of sleepers for the Delhi Railway, as well as for the East Indian line in the North Western Provinces. The Nimar forests produce teak in plenty, Salee is very plentiful, and Peepul is also found, as well as 35 other descriptions of wood. The forests divide themselves into three lots, one only being valuable—that of Nerbudda, which, joined to another tract which has been bought and annexed to it, forms a compact forest covering an area of about 400 square miles, calculated to yield a revenue of 20,000 rupees per annum. Of the two government forests of Attaran, one containing at the last survey, 7,480 well-grown saplings; the other is worked by permit holders, and is difficult of access. The forests of the water-sheds and of Touse Rivee contain tracts of fine deodar, aheel, etc., and are situated conveniently for water-carriage. The forest of Sigur yields fine sandalwood, and returns a profit to government, but is nearly exhausted. Salem produces sandalwood, teak, and immense quantities of bamboos. The Goomsur forests furnish vast quantities of sal, and no timber is equal to it for engineering purposes. Its durability under water is, perhaps,

unequaled, and it is quite proof against white ants. Sixty-three descriptions of trees are to be found in them, but unfortunately the difficulties of export by sea are great. In the tract known as the Golcondah-hills, the most valuable timber is found, but roads will have to be made before it can be utilised. The Godavery forests to the south and west, and others to the east and north-east, contain equally fine timber, and are more accessible. In Mysore the valleys are rich in grain and other crops, while the lower slopes are clothed with small dense forests. These are roughly divided into deciduous and evergreen. The first evergreen belt comprises the country in the Western Ghats and immediately below them, extending from the northern boundary of Coorg to the north of the Sagara Talook. Its greatest width, which is at its northern extremity, nowhere exceeds 12 to 14 miles, and at some points not more than six. The tree vegetation is magnificent; many of the hills are covered to their summits with heavy forests, while the valleys and ravines produce trees which can hardly be rivalled in India—so luxuriant is their growth, so vast their height, so great their size. In some parts the undergrowth is dense, elsewhere the forest is open; and on all sides trees, with clear stems to the first branch, of from 80 ft. to 100 ft., meet the eye. The great bulk of these trees can scarcely be realized, except by actual measurement. The more valuable kind of these trees are poon, wild jack, gamboge, a species of cedar, mara, etc. The second, or mixed belt, extends the whole length of the province, and varies in width from 10 to 40 or 45 miles. It includes the greatest number of the timber-producing state forests, large tracts of district forests, and much sandalwood and bamboos abound in this belt. The tree vegetation of the dry belt is, as a rule, of smaller growth, especially teak.

Such is the conclusion of a very

brief examination into our Indian resources, and merely the most interesting facts have been stated, as otherwise the subject would be wearisome. Energetic measures are adopted by the Indian government towards the conservation of the forests and the keeping up the supply as felling proceeds. With such wise precautions, we may expect a material increase in the yield, and an exemption from that scarcity which the Americans complain of.—*Building News, London.*

A DESPERATE REMEDY.

The *Boston Lumber Trade* of October 12th says:

A desperate disease requires a desperate remedy. That the lumber trade may be with truth spoken of as so affected will be conceded on all hands. Whether any of the remedies suggested will meet the case and be in any considerable degree effective, may be manifest hereafter. At the present time, there is certainly much of doubt. We referred last week to rumors of a combination of heavy operators for the purpose of breaking down prices. From circumstances, within our knowledge, and information, which we believe to be authentic, we are disposed to give credence to the report that several operators, largely interested in Michigan property, in mills and timber, and in manufactured lumber, have been discussing among themselves the proposition, if they have not come to an actual agreement to place on the market, within the next few weeks, a large amount of lumber at very low prices, prices such as must entail on themselves and others a heavy loss. Their own resources will enable them, they think, to stand the consequent drain on them, and they hope to make it up hereafter. The immediate result, they intend and expect, will be to break down the market, to stop the small operators for the present, for this season

at least, and they hope permanently, so that this competition will be removed. They aim also to curtail largely the winter's crop of logs by the discouragement, consequent on a sudden and heavy decline in a market, already dull and stagnant. The result might be, and this is their thought, that, with a short crop of logs and the suspension or failure, and closing up of many small concerns, prices would rally and the business of next season be such as to more than reimburse them for temporary loss.

We state another fact of importance in this connection. Our eastern market is, at the present time, overrun with the representatives of the Michigan lumber trade, as never before known. Our small towns and villages, in which there are one or two lumber yards, possibly but a single one, doing a strictly retail business, and always hitherto dependent for their supplies upon the wholesale yards or the commission houses of Boston or other eastern points of distribution, are being visited by two, three or four drummers from Michigan, per week, either the owners themselves or representing the owners, of mills, most of them comparatively small ones, in that state. These parties try to force their lumber on the retail dealers in small amounts, a carload or so, the effort being to sell a small bill of goods on almost any terms. These facts, as connected with the present outlook of the lumber trade, are most discouraging.

Another remark, worthy of consideration, is this: The lumbermen of Michigan, more perhaps than those of any other region, have been in a state of intense excitement in reference to the treaty of reciprocity with Canada, in view of the ruin which they say is impending to the lumber trade, if any treaty is made with Canada, embracing the same or equivalent provisions as to the duty

on lumber, with those contained in the treaty which was presented to the United States senate at the close of its last session. And yet these same lumbermen are taking a course which must result in all the damage to themselves and the trade generally, that could be realized, if any treaty of reciprocity should be concluded with Canada. If they are in such a condition that that they must resort to measures, such as we have referred to above, they do need reciprocity to ruin them, they are already ruined, or will be before the time will elapse, which must now intervene before the high contracting powers can act upon and determine that question.

WOOD AS FOOD FOR HOGS

There is no doubt in our mind of the benefit from feeding crude carbonaceous matter to swine when they are kept in close pens. The avidity with which the hogs eats rotten wood is well known. Charcoal is but another form of carbon. Bituminous coal is still another form. The utility of feeding wood and coal has long been recognized. Some years since we substituted the ordinary western stone coal with the best results, where 200 to 500 hogs were kept in close pens, and fed on the refuse of city hotels. Something of this kind seems as necessary to them as salt to strictly herbivorous animals. We have known them to consume a pound in the course of a day, and again they would not seek the coal for some time. Just what particular use the coal is in the animal economy is not easy to answer. Swine are especially liable to scrofulous and inflammatory diseases. Carbon, in the shape of coal, is an antiseptic, and the probability is that it acts in this way in purifying the blood.—*Western Rural.*

THE WORLD'S STEAM POWER.

Dr. Engel, director of the Prussian statistical bureau, in a statement permanent commission of the international statistical congress, on the statistics of steam boilers and steam engines in all parts of the globe, is of opinion that a record of that kind can only be compiled in part, by reason of the difficulty of collecting such information. Though the civilization of almost every people has been more or less affected by the introduction of steam, the numerical extent of the steam machinery now in actual use is comparatively unknown. The doctor is said to have resources which no other statistician can command, and yet he acknowledges that, after all, the total material furnishes him with but a few meagre facts.

Respecting stationary engines, for example, we have only a few and partly quite old dates thus:

	Date	Number	Horse-power.
United States.....	1870	40,191	2,516,711
Great Britain.....	1871	40,000	936,405
France.....	1869	27,041	325,507
Zoll-Verin.....	1861	10,113	184,656
Belgium.....	1860	4,410	99,601
Total.....		121,755	2,761,880

Many leading countries are missing in the above list, so that with the assumption that the returns are much below the actual facts, our authority thinks it safe to assert that at present there are not less than 150,000 stationary engines with from three to three and a half millions horse-power at present employed in the agricultural, mining, manufacturing and other industrial establishments of the world.

The following returns with reference to locomotives is much more complete, as every country has tolerably correct railroad statistics:

	Year	Number.
United States.....	1873	14,223
Great Britain.....	1872	10,988
Zoll-Verin.....	1871	5,927
Russia.....	1873	2,684
Austria.....	1873	2,369
Hungary.....	1869	506
France.....	1869	4,933
East Indies.....	1872	1,328
Italy.....	1872	1,172
Holland.....	1872	381

Belgium.....	1870	371
Switzerland.....	1868	225
Egypt.....	1870	242
Sweden.....	1872	185
Denmark.....	1865	39
Norway.....	1871	34
Total.....		45,467

It may be assumed that there are still four or five thousand additional locomotives in countries from which no statistics have been received, so that something like fifty thousand engines of that description, of an aggregate of ten millions horse-power are now in use. Total steam engines, whether stationary, locomotive or marine, about 14,400,000 horse-power. The United States and Great Britain, owing chiefly to their inexhaustible coal mines, are shown to be the largest owners of steam engines. The former has about 3,800,000 horse-power and the latter 3,300,000.

Next, with reference to ocean steamers, we have the following statement, brought down to 1871:

	Number.	Tonnage.
Great Britain.....	3,061	2,624,481
United States.....	408	453,040
France.....	575	.....
Germany.....	225	181,089
Italy.....	202	138,762
Greece.....	103	85,045
Austria.....	91	48,553
Holland.....	95	72,367
Russia.....	114	67,522
Sweden.....	143	58,327
Norway.....	88	41,602
Denmark.....	71	34,478
Belgium.....	42	80,414
Egypt.....	25	18,716
Levant.....	8	8,390
Turkey.....	9	3,049
Total.....	5,255	

These are curious facts, and while making due allowance for lack of official exactness they may well start the inquiry how far this multiplication of steam machinery to the varied industries which were formerly prosecuted by horse-power and manual labor is influencing these agencies. In regard to horse-power, diminished production may be accepted as a natural result, though we have no statistics at hand to show how far the reduction extends. The application of steam to manufactures and mining has largely superseded the use of the horse. The farmer has to raise less

hay and fodder for dumb animals, and more food for the human family, whose wants in that respect expand, rather than contract, with the rapid multiplication of the world's industries by the marvellous application of science. What is lost by the gradual diminution of a once indispensable industry, therefore, is gained, and more than gained, by the larger market created for agricultural products. We have a striking exemplification of this effort of steam power upon the matter of horse production in the statistics of our own country, thus:

HORSES IN THE UNITED STATES.		Increase.
In 1850.....	4,386,000	
1860.....	6,245,000	44 per cent.
1870.....	7,145,000	14 per cent.

The falling off in the percentage of the last decade tells its own story. In England there has been a more noteworthy decline; so much so, indeed, as to give rise to serious complaint on the part of some kind of industries that have not yet had direct benefits of steam-power—notably, the draymen in the large cities. At the last session of parliament the subject attracted much attention, and a special meeting at the instance of the Marquis of Hartington, was appointed to inquire into the cause of the deficiency, with a view to applying a remedy. It ascribed the diminution of horse stock supply to its growing unprofitableness. It had ceased to pay, since steam was more and more coming into use; but the cessation was out of proportion to, and less gradual than, the increase of the substituted power; and just there was the trouble. England formerly imported horses largely from Ireland; but there the business also had largely declined, so that recourse to Belgium and other continental countries to supply actual necessities. The committee, however, had nothing to recommend, except to impose some restriction upon the breeding of fancy stock for the race course and the road. The belief was ex-

pressed that the better prices which were now paid, owing to the scarcity, would induce farmers to turn their attention once more to the raising at least of such stock as was absolutely necessary to the prosecution of a numerous class of industries that were not directly affected by scientific appliances.

It is not to be supposed that any but the most unphilosophical minds will deduce from these facts that this utilization of machinery in the various productive industries of the world is circumscribing the area of manual labor, or rendering manual labor more remunerative than it was formerly. A different rule applies here from that by which we are accustomed to gauge the capacity and usefulness of the lower animals. Man profits in some way by every discovery of science, and though the discovery may compel him from time to time to revolutionize his methods, it will be found that the material results are invariably to his advantage. *N. Y. Bulletin.*

CATALPA FOR POSTS.

The *Rural New Yorker* says: The fact that catalpa wood almost, if not quite, equals locust for durability when set for posts has long been known. The tree is injured by the winter in the colder portions of the northern and eastern states, but though put back in its growth will establish itself upon good soils and grow well. It is one of our most ornamental trees both for bloom and for foliage; and on account of its rapid growth is a favorite in lawns and along avenues. The annual rings seen when the stem is sawed across are often one inch in thickness and this gives the wood great beauty when worked for furniture or put to other like uses. In the southern states, it thrives on good soils and will run up tall when planted close, which is very different from its habit when planted alone.

LUMBER MARKET.

Milwaukee, Wisconsin.

MILWAUKEE, Nov. 15, 1874.

There is no change in the condition of the lumber market in this city. Trade is not what it should be at this season of the year, although on the average it is full as sound as it was last year at this time. During the past few days several prominent lumbermen from the northern pineries have visited Milwaukee, and in conversations with them, it is developed that a more general and greater depression exists in the pinery regions now than was the case last fall. The talk is that but little logging will be done excepting by the larger firms. The reports from the Wisconsin river pineries are to the effect that times are particularly hard and close and that but very limited preparations for logging are being made. The stocks in general at this point are full, and county customers may rely upon having extended stocks to select from if they visit Milwaukee. We quote yard rates as follows :

Common boards.....	12 00@
Joist and Scantling, 12 by 16 ft.....	12 00@
do do 18 ft.....	13 00@
do do 20 ft.....	14 00@
do do 22 to 24 ft.....	15 00@17 00
Fencing.....	12 00@
1st and 2d clear dressed siding.....	25 00@
1st com. do do.....	20 00@
2d com. do do.....	16 00@
1st com. flooring.....	35 00@
2d do do.....	28 00@
3d do do.....	23 00@
1st and 2d clear boards.....	45 00@
3d do do.....	35 00@
Narrow select finishing boards.....	28 00@
Wide select com.....	20 00@48 00
1st and 2d clear 1 1/2, 1 1/2 and 2 inch.....	45 00@
2d clear do.....	35 00@
Wagon Box Boards.....	30 00@35 00
A stock do.....	35 00@
B do do.....	25 00@
C do do.....	12 00@
Square pickets.....	13 00@
Flat pickets.....	12 00@
Lath M pieces.....	2 50@ 2 75
A shingles, M.....	3 25@
No. 1 do do.....	1 50@ 2 25
Timber, 18 to 22 ft.....	15 00@18 00
Timber, 24 ft and over.....	18 00@35 00

Chicago, Ill.

FREIGHTS.

The demand for vessels was light, the market ruling quiet but firm, and rates

were steady at the recent advance. Offerings light :

Oconto.....	\$3 00@3 12 1/2
Manistee.....	2 50 2 75
Ludington.....	2 25
Muskegon.....	2 00
Pentwater.....	2 12 1/2
White Lake.....	2 25
Saugatuck.....	2 25
Grand Haven.....	2 12 1/2
Menominee.....	2 50

LUMBER.

The *Northwestern Lumberman*, Nov. 1, reports as follows :

The receipts of lumber for October have been somewhat lighter than for the preceding month. Trade has been fair with prices ruling firm at an advance over September.

RECEIPTS.

1874. 1873.

For October... 126,688,030 135,291,000
For September.. 146,610,050 158,821,000

The total receipts for the season to November 1st, amount to 963,609,000 feet, being very near to the amount which has been estimated as the total receipts for 1874 i. e.; 1,000,000,000. From present appearances, the total will exceed that amount by twenty-five or thirty millions. Joist and scantling sold during the early part of the month at \$9, advancing toward the close to 9.50 where it remains firm. Common boards and strips have ranged all the way from 9 to 13, and mill run lumber of fair quality has found ready sale 14.50 to 16. Common grades retail at the yards for 11, and for good, thoroughly dry stock 12 is obtained, prices being firm at these figures. Fencing is held firm at 12 to 12.50, and finds ready sale wherever offered.

Concerning the circular from the secretary of the Lumbermen's Board of Trade, which we present elsewhere the *Northwestern Lumberman* remarks :

We believe no inventory of stock was ever taken before at this time of the year so we have no means of comparing with former years. The best judges say, however that the amount of lumber on hand in the yards is not greatly in excess, but the fact mentioned elsewhere, of city wholesalers having at least 100,000,000 feet of lumber in the country unpaid for, is worthy of particular notice. If that amount were here in the yards, we would consider ourselves possessors of an enormous overstock, and the difference in locality does not alter the fact. It is use-

less to reiterate the fact that this market is receiving annually two hundred millions more of sawed lumber than there is a healthy demand for, it is written so boldly in every phase of the trade as now conducted that "he who runs may read," and in truth there seems but small prospects of a different state of things for a twelve month to come.

In the yards trade was dull, sales being light. Prices easy, but without any quotable change.

YARD PRICES.

First clear.....	\$53 00@55 00
Second clear.....	48 00@50 00
Third clear, 1 in.....	37 00@40 00
Third clear, thick.....	43 00@45 00
Clear flooring, 1st and 2d together, rough.....	38 00@40 00
Clear siding, 1st and 2d together.....	22 00@23 00
Common siding.....	18 00@20 00
Flooring, first common, dressed.....	33 00@35 00
Flooring, second common, dressed.....	28 00@30 00
Wagon-box boards, 16 in. and upward, select.....	35 00@40 00
Select, 1-in.....	26 00@30 00
Select, thick.....	32 00@35 00
Stock boards, A.....	32 00@35 00
Stock boards, B.....	28 00@30 00
Common boards.....	11 00@12 00
Joist, scantling, small timber, etc 16 feet and under.....	11 00@12 00
Fencing.....	10 50@12 00
Joist and scantling, 18 to 24 ft.....	14 00@20 00
Pickets, square.....	@ 11 00
Pickets, flat.....	12 00 13 00
Cedar posts, sp/it.....	16 00 18 00
Cedar posts, 5 inch.....	20 00@
" 6 inch.....	25 00
" 7 inch.....	30 00
" 8 inch.....	35 00
Lath.....	2 00 @ 2 25
Shingles—Sawed No. 1.....	1 50@ 2 00
" "A".....	2 00@ 2 25

Shingles on track are steady at \$2.75@3.00 for A s.t.r., and \$1.50@2.00 for No. 1 sawed.

WHITE WOOD.

Box boards.....	40	Clear.....	55@ 45
Common.....	25	Culls.....	10 11

HARDWOOD.

OAK.		ASH.	
Plank, common.....	@ 25	Board and planks.....	30@ 40
Plank, clear.....	48	Wagon poles, each.....	55 60c
Bolster s.....	45	Flooring, 6-in dr'd and matched.....	40
BLACK WALNUT.		CHERRY.	
Culls.....	25@ 35	Flooring, 8 and 4 inch dr'd and matched.....	50
Common.....	50	Culls.....	20 25
First and 2ds.....	60 75	Common.....	40
Clear.....	75 88	First and 2ds.....	40
Counter tops, (selected).....	100 150	Clear.....	65
Flooring, 6-in dr'd and matched.....	50	HICKORY.	
Flooring, 8 and 4 inch dr'd and matched.....	80	Plank (selected).....	50
MAPLE.		Axles, per pair.....	1 50
Plank.....	30 40	BASSWOOD.	
Flooring, 8-in dr'd and matched.....	40	Basswood.....	12 25
Flooring, 8 and 4 inch dr'd and matched.....	45	BUTTERNUT.	
		Butternut.....	25 60

St. Louis, Mo.

Messrs. Methudy & Meyer report the condition of the St. Louis market, Nov. 7th, as follows:

We have no change to note in white pine in raft; receipts and transactions light. We quote afloat: Minneapolis and Chippewa at 11@14, Wisconsin at \$10.50 @22—fair to good at 16@18 and dimension at 11@13. Lath and shingles unchanged at 2.30@2.40 for former and at 3@3 40 del. for latter. Trade at the yards active at steady prices. Depot and levee lumber dull and unchanged; no regular demand for any description.

We quote the range for depot and levee lots: Y. P., flooring—green at 20@22 and 12@13, dry do 24@25 and 14@15; yellow pine mill-run dimension 12@13; popular at 15@18 for mill-run boards and strips—2d and clear do do at 21@22.50, 3d rate 13@15; black walnut 20@25 for inferior, 30@35 for common to fair, 38@40 for good, and 42.50@45 for choice; oak at 15@25; ash at 20@25; hickory at 25@32.50; sawed cedar timber at 28@31—hewn at 14@26; cedar posts at 22@28; walnut table legs at 14@20c $\frac{3}{4}$ set. Special orders filled at higher rates.

WHITE PINE.

1 inch 2d clear.....	\$50	@52 50
1 inch 3d clear, 7 to 8 inches.....	35	@40 00
1 inch select (Star).....	40	@
1 inch narrow extra common.....	22	50@
1 1/4, 1 1/2 and 2 inch 2d clear.....	52	50@55 00
" select (Star).....	40	00@45 00
Aclear stock boards, 12 inch.....	40	
B " " " ".....	27	5c@30 00
C " " " ".....	18	00@20 00
A box boards.....	40	00@42 50
B " " " ".....	30	00@32 50
1st clear flooring dressed (count).....	50	00@
1st common " ".....	36	00@37 50
2d common " ".....	26	00@30 00
Sel. fencing flooring ".....	19	00@22 50
1st and 2d clear siding.....	24	00@
1st common " ".....	21	00@23 00
2d " " " ".....	16	00@
Select fencing.....	12	50@
3/4 inch common ceiling dressed, count double bead.....	25	00@
3/4 inch 1st common ceiling dressed count double bead.....	30	00@
3/4 inch 1st common ceiling dressed, count, double bead.....	35	00@
Common boards, 12, 14, 16 and 18 ft.....	14	00@18 00
" " 10 and 20 ft.....	15	00@30 00
Cull boards (sheathing).....	11	00@15 00
Grub plank, 14, 15, 18 or 20 feet.....	10	00@12 50
Grub joists, 2x6 and 2x8 16 feet.....	11	00@12 50
6 inch fencing, 16 feet.....	14	00@18 00
6 " " " " 12, 14 and 18 ft.....	14	00@18 00
6 " " " " 10 and 20ft.....	14	00@
Narrow " " " " 16 ft.....	14	00@
Cull " " " ".....	11	00@
Cull " " " " 12 and 14 ft.....	11	00@
Joists 12, 14 and 16 ft.....	14	00@18 00
" " 18 and 20 ft.....	16	00@30 00
" " 22 and 24.....	19	00@24 00

any considerable difference in the supply. At Chicago the reported receipts of lumber, by lake, to the 27th of October were 928,663,100 feet against 989,707,000 feet the year previous; the shipments from January 1st, are 504,148,000 feet against 490,695,000 feet the previous year.

Canal freights from Buffalo to Albany are: \$4.00 per M feet for pine and \$5.00 for hard wood; from Oswego, \$2.75. Lake freights have an upward tendency.

River and eastern freights are quoted as follows, with an upward tendency:

To New York per M.....	\$ 1 00@	1 25
To Bridgeport.....	1 50@	1 75
To New Haven.....	1 50@	1 75
To Providence.....	2 25@	2 50
To Pawtucket.....		2 75
To Norwalk.....	1 50	
To Hartford.....	2 25	
To Middletown.....	2 25	
To New London.....	2 25	
To Philadelphia.....	2 50	
To Baltimore.....	3 75	
To Richmond, Va.....	3 25	
To Boston, softwood.....	4 00	
To Boston, Hardwood.....	5 00	

The present current quotations of the yards are:

Pine, clear $\frac{3}{4}$ m.....	\$52 00@	55 00
Pine, fourths $\frac{3}{4}$ m.....	47 00@	50 00
Pine, selects $\frac{3}{4}$ m.....	42 00@	45 00
Pine, good box $\frac{3}{4}$ m.....	20 00@	25 00
Pine, common $\frac{3}{4}$ m.....	14 00@	16 00
Pine, clap board strips.....	45 00@	46 00
Plue, 10 inch plank, each.....	38@	43
Pine, 10 inch plank, culls, each.....	21@	23
Pine, 10 inch boards, each.....	26@	31
Pine, 10 inch board, culls, each.....	16@	18
Pine, 10 inch boards, 16 ft, $\frac{3}{4}$ m.....	25 00@	27 00
Pine, 12 inch boards, 16 ft, $\frac{3}{4}$ m.....	28 00@	29 00
Pine, 12 inch boards, 13 ft, $\frac{3}{4}$ m.....	25 00@	28 00
Pine 1 $\frac{1}{2}$ inch siding, select, $\frac{3}{4}$ m.....	40 00@	44 00
Pine, 1 $\frac{1}{2}$ inch siding, common, $\frac{3}{4}$ m.....	16 00@	18 00
Pine, 1 inch siding, selected, $\frac{3}{4}$ m.....	38 00@	42 00
Pine, 1 inch siding, common, $\frac{3}{4}$ m.....	14 00@	17 00
Spruce boards, each.....	@	15
Spruce plank, 1 $\frac{1}{2}$ inch, each.....	@	17
Spruce plank 2 inch, each.....	@	21
Spruce, wall strips, each.....	@	12
Hemlock boards, each.....	@	15
Hemlock boards, 4x6, each.....	@	34
Hemlock joists, 2 $\frac{1}{2}$ x4, each.....	@	14
Hemlock wall strips, 2x4, each.....	@	12
Hemlock plank, 2 inch, each.....	@	30
Black Walnut, good, $\frac{3}{4}$ m.....	75 00@	85 00
Black Walnut $\frac{1}{2}$ inch, $\frac{3}{4}$ m.....	75 00@	78 00
Black Walnut, $\frac{1}{4}$ inch, $\frac{3}{4}$ m.....	75 00@	80 00
Sycamore, 1 inch $\frac{3}{4}$ m.....	@	35 00
Sycamore, $\frac{1}{2}$ inch $\frac{3}{4}$ m.....	@	32 00
White wood, chair plank, $\frac{3}{4}$ m.....	65 00@	68 00
White wood, 1 inch, and thick, $\frac{3}{4}$ m.....	33 00@	45 00
White wood, $\frac{1}{2}$ inch, $\frac{3}{4}$ m.....	35 00@	40 00
Ash, good, $\frac{3}{4}$ m.....	38 00@	43 00
Ash, second quality, $\frac{3}{4}$ m.....	25 00@	30 00
Oak, good, $\frac{3}{4}$ m.....	25 00@	45 00
Oak, second quality, $\frac{3}{4}$ m.....	25 00@	30 00
Cherry, good, $\frac{3}{4}$ m.....	60 00@	70 00
Cherry, common, $\frac{3}{4}$ m.....	25 30@	35 00
Birch, $\frac{3}{4}$ m.....	25 00@	30 00
Beech, $\frac{3}{4}$ m.....	20 00@	25 00
Basswood, $\frac{3}{4}$ m.....	22 00@	25 00
Hickory, $\frac{3}{4}$ m.....	40 00@	45 00
Maple, $\frac{3}{4}$ m.....	22 00@	30 00
Chestnut, $\frac{3}{4}$ m.....	40 00@	45 00
Shingles, shaved pine, $\frac{3}{4}$ m.....	6 50@	7 00

Shingles, do, 2d quality, $\frac{3}{4}$ m.....	5 00@	5 00
Shingles, extra sawed pine, $\frac{3}{4}$ m.....	5 00@	5 25
Shingles, clear sawed pine, $\frac{3}{4}$ m.....	3 50@	4 00
Shingles, sawed 3d quality, $\frac{3}{4}$ m.....	2 50@	2 75
Shingles, cedar, $\frac{3}{4}$ m.....	3 00@	5 00
Shingles, hemlock, $\frac{3}{4}$ m.....	@	8 00
Lath, hem'lock, $\frac{3}{4}$ m.....	@	1 75
Lath, spruce, $\frac{3}{4}$ m.....	@	2 00
Lath, pine, $\frac{3}{4}$ m.....	@	2 25

Oswego, New York.

From the Oswego Weekly Palladium.

OSWEGO, Nov. 6, 1874,

Our reports of sales shows an increased business which we are of the opinion will keep up till the close of canal navigation. Prices are without change.

MICHIGAN PINE.

Three uppers.....	\$48@	55
Clapboard strips, 1st quality.....	48	52
" " 2d ".....	18	22

CANADA PINE.

Three uppers.....	\$40@	42
Pickings.....	28	30
Common.....	17	22
Inch siding, mill run.....	22	32
" " selected.....	32	38
" " box.....	13	15
1 $\frac{1}{2}$ inch siding, mill run.....	22	35
" " selected.....	38	40
" " box.....	13	15
" " mill run.....	24	32
" " selected.....	35	42
" " box.....	13	15
" " mill run.....	24	30
" " selected.....	38	42
" " box.....	18	15
1x10 stocks, 13 ft, culled.....	22	26
1x10 stocks, 13 ft, culls.....	18	15
1x10 stocks, 16 ft, culled.....	23	26
1x10 stocks, 16 ft, culls.....	14	16
1x12 stocks, 13 ft, culled.....	22	26
1x12 stocks, 13 ft, culls.....	13	15
1x12 stocks, 16 ft, culled.....	23	26
1x12 stocks, 16 ft, culls.....	15	17
1x14 stocks, culled.....	23	28
1x16 stocks, culled.....	23	28
1 $\frac{1}{2}$ x10 plank, culled.....	22	27
1 $\frac{1}{2}$ x10 plank, culls.....	13	15
1 inch strips, culled.....	22	30

Boston, Mass.

The Boston Lumber Trade, Oct. 31st,

says:

The trade pursues the even tenor of its way. No sales of importance have been made during the week which dealers think it worth while to report. The average amount passes through the surveyor general's office and a considerable portion of it is sold, but buyers are not putting in their customary stocks. Transactions are limited to necessities in most cases. Prices remain as quoted and there seems to be no disposition to go lower. The arrivals by vessel of southern and eastern stocks, as will be seen, are limited, the

former particularly so. The winds have kept back numerous schooners from the east, which will probably arrive during the week to come. There are rumors of suspensions in one or two cases, but nothing is made public as yet. It is hoped by the trade that the parties may make some arrangement whereby that result may be averted. It would be very strange if the winter did not bring with it some failures, but at the same time we believe the trade generally is in a strong healthy condition and that it will go through all right. Trade is not expected to revive before spring. The present demand while not large is very fair and shows no signs of further weakening.

The *Commercial Bulletin*, Nov. 7th, says:

Several dealers reported a better inquiry and more sales Thursday and Friday. Preparations of all kinds for the approach of cold weather should make this a very active season of the year for miscellaneous lumber. Some of the dealers are busy enough to remind one of the good old days. The better feeling may be in part due to a sense of relief that the elections are now over. Skillings & Whitney Bros., report that the cargo of the *Anna Decatur*, which they are now loading for Valparaiso with 700,000 feet of the first quality of Michigan pine, will be one of the choicest as to quality that has ever been shipped from Boston. They are busy with another cargo for the Azores, are doing a deal of exporting to San Francisco, and are altogether enjoying a very good foreign trade.

Stocks of good lumber in the west were never so light as at the present time. The lumbermen have taken advantage of the low freights ruling during the past three months, and have shipped unusually large quantities eastward. But the stocks of best pine are by no means excessive in the eastern marts. Poor lumber is plenty and dull.

Southern pine is weak and low. The yards have all they want. Hemlock and Spruce are very druggery.

CARGO RATES.

EASTERN.

Clear—No. 1 and 2.....	\$60 00@65 00
No. 3.....	50 00
No. 4.....	39 00
No. 5.....	30 00 32 00
Pine Shipping boards—common.....	20 00 22 00
No. 5.....	20 00 22 00
Refuse.....	10 00 14 00

Spruce—Scantling and plank.....	12 00	16 00
boards.....	15 00	17 00
Hemlock boards.....	10 00	13 00

SOUTHERN.

Pine—Flooring, Nos. 1 and 1.....	35 00	32 00
Ship stock.....	33 00	34 00
Dimension factory.....	27 00	40 00
Hewn.....	30 00	33 00
(random cargoes \$4 to \$5 less.)		

WESTERN.

Michigan Pine—Nos. 1 and 2.....	58 00	60 00
No. 3.....	45 00	50 00
No. 4 and selects.....	37 00	45 00
Fine common.....	33 00	35 00
Shippers.....	23 00	25 00
Best 6 inch strips.....	53 00	5 00
Black Walnut—No. 1 and 2.....	70 00	82 50
Ash—Nos. 1 and 2.....	40 00	45 00
Refuse.....	25 00	30 00
Cherry—Nos. 1 and 2.....	50 00	70 00
Refuse.....	30 00	40 00
Whitewood—Nos. 1 and 2.....	35 00	42 00
Nos. 1 and 2, ½.....	26 00	32 00
Refuse.....	20 00	28 00
Oak.....	45 00	50 00
Buiternut—Nos. 1 and 2.....	55 00	65 00
No. 3.....	30 00	35 00

CANADA.

Selects, dressed.....	58 00	60 00
Shelving—Dressed.....	48 00	50 00
2nd.....	35 00	40 00
Sheathing—1st quality.....	48 00	50 00
2nd quality.....	34 00	36 00
Box.....	22 00	24 00
Shippers.....	28 00	31 00
Pickings.....	40 00	42 00

SHORT LUMBER.

Shingles—Spruce, extra.....	2 00	2 25
do No. 1.....	1 75	2 00
Pine, shaved.....	6 00	7 00
do sawed.....	2 50	5 00
Cedar, shaved.....	3 00	6 00
do sawed, extra.....	4 50	4 75
do clear.....	3 75	3 25
do No. 1.....	2 50	3 25
do No. 2.....	1 50	1 75
Loths—Spruce.....	1 50	1 75
Pine.....	1 75	2 00
Clapboards—Spruce, ex. dres'd, 6 ft 6 in.....	45 00	50 00
do do 4 ft.....	34 00	35 00
do clear, 6 ft 6 in.....	37 00	40 00
do do 4 ft.....	24 00	30 00
do No. 1, 6 ft 6 in.....	30 00	35 00
do No. 1, 4 ft.....	15 00	20 00
Pine, extra sap, dressed.....	50 00	55 00
do clear.....	42 00	45 00
do No. 1.....	25 00	30 00

FURNITURE WOODS.

Ash, per M feet.....	55 00	60 00
Oak.....	45 00	65 00
Cherry, good.....	80 00	
do second quality.....	40 00	50 00
Maple.....	35 00	50 00
Black Walnut, good.....	90 00	11 00
do second quality.....	55 00	70 00
Whitewood.....	50 00	60 00
do chair plank.....	75 00	90 00
do ½ do.....	35 00	45 00
Cedar—Nuevitas and Mexican, log per ft.....	00 15	00 20
do Surinam.....	00 10	00 15
do Florida, boards.....	00 20	00 22
Mahogany—Honduras.....	00 15	00 25
do Mexican.....	00 15	00 20
do Nuevitas.....	00 12	00 10
Rosewood—Rio Janeiro, per lb.....	00 4	00 10
do Bahia.....	00 4	00 7
Satinwood—Log, per foot.....	00 17	00 30

JOHN B. BOTTINEAU, REAL ESTATE,

Insurance and Loan Agent.

OFFICE, Ground Floor, East Entrance, CITY HALL,
MINNEAPOLIS, MINNESOTA.

Special attention given to paying taxes, procuring and perfecting titles to lands entered by HALF-BREED SCRIP. Soldiers' 80-Acre Claim and Warrants bought and so'd. Persons a application, under Chippewa Treaty, Feb. 22, 1855, to enter Land always on hand, by which I can enter Pine Lands in Minnesota at \$2.50 per acre.

Persons having numbers, or expecting such, will do well to give us a call or correspond. Letters will receive prompt attention.

Also owners of Pine or other Land, who wish to dispose of the same, will find I am a position to make speedy sales.

Choice Timber Land.

In Townships 158 to 160 inclusive, Range 50, situated between the St. Vincent Extension of the St. Paul and Pacific Railroad and the Red River of the North, on which latter there is constant traffic, and where the surrounding country is somewhat deficient in timber, I have 10,000 acres of land, first-class black loam and alluvial soil, surpassing any tract in the State for the production of wheat and farm produce. Specimens of the produce of this locality at the last State Fair took the first prizes. The above tract is heavily timbered with White and Burr Oak, averaging at least 4,000 feet select timber to the acre on which the government in adjoining tracts collects stumpage at \$3.00 per thousand feet. The lumber is not only in demand for local consumption, but finds a ready market in Pembina and the Province of Manitoba, where also timber is scarce, and to which there is water carriage.

Extra inducements to capitalists will be offered in the above lands for joint operations.

I have also for sale 1,120 acres in township 180, range 34 and 35. First quality Farming Lands, well timbered and prairie and well watered; near railroad. \$5.00 per acre.

Choice Pine Lands.

6,331 acres, on which stand 27,710,000 feet of choice lumber, all within four miles of landing, in tract as follows:

160 acres in sec. 24.....	T. 182, R. 30	240 acres in sec. 10, 14, 21.....	T. 132, R. 31
400 acres in sec. 21, 22, 30.....	T. 187, R. 33	360 acres in sec. 14, 18, 24.....	T. 182, R. 31
440 acres in sec. 1, 12.....	T. 187, R. 34	240 acres in sec. 30.....	T. 40, R. 25
160 acres in sec. 10, 22, 24, 34.....	T. 137, R. 33	380 acres in sec. 3, 22, 24, 26.....	T. 40, R. 29
877 acres in sec. 6, 11, 13, 14, 24, 25, 33, 34.....	T. 188, R. 25	320 acres in sec. 6, 10, 28, 34.....	T. 51, R. 26
160 acres in sec. 8.....	T. 137, R. 33	360 acres in sec. 10, 14, 26, 34.....	T. 51, R. 27
240 acres in sec. 4, 18.....	T. 131, R. 30	320 acres in sec. 14, 22, 26, 30, 34.....	T. 53, R. 26
480 acres in sec. 10, 14, 24.....	T. 131, R. 31	160 acres in Wisconsin, sec. 30, T. 44, R. 2 W., near crossing of Wisconsin C. R. R.	
200 acres in sec. 18.....	T. 132, R. 30		

Prices range from \$4.50 to \$12.50 per acre.

1,000 acres estimated to cut 5,000,000 feet of White Pine, in townships 129 and 130, range 32. Will be sold cheap to close a partnership.

Have also several hundred acres that have been partly cut, some years ago, which at the prices asked would be a good paying investment.

And several thousand acres of choice Pine Lands tributary to Duluth markets.

REFERS BY PERMISSION TO

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| Hon. Alexander Ramsay, U. S. Senator, Minnesota. | Hon. E. M. Wilson, ex-member of Congress, Minneapolis, Minn. |
| Ex-Gov. W. R. Marshall, President of Marine Bank, St. Paul, Minn. | Hon. R. J. Baldwin, Cashier of State National Bank, Minneapolis, Minn. |
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| Lou. C. E. Vandenberg, Judge 4th Judicial District, Minnesota. | Hon. H. T. Welles, Minneapolis. |
| parks, McPherson & Co., Bankers, Minneapolis. | Hon. R. F. Crowell, St. Paul, Minn. |

TO LUMBERMEN!

NOW READY.

The most comprehensive and valuable volume of

LUMBER STATISTICS EVER PUBLISHED.

The compiled Statement of the

TRADE AND MANUFACTURE OF LUMBER, FOR 1874.

PUBLISHED BY

JUDSON, DICEY & CO., Publishers of the *Northwestern Lumberman*, Chicago.

This work is a complete digest of lumber statistics, including, aside from the full detailed statement of the manufacture for the current year, a careful summary of statistical matter compiled and condensed into the most convenient form possible, for frequent and immediate reference, making a book of over one hundred pages, octavo, handsomely and durably bound in cloth.

Aside from the guarantee of its value and importance to the trade contained in the fact that it is compiled by the editors of the *NORTHWESTERN LUMBERMAN*, the acknowledged representative journal of the Lumber and Timber Trades, the publishers believe it will be worth **fifty times its cost** for the following reasons:

1st. In the statement of the lumber cut for the season of 1874 is comprised in detail a list of every saw mill at every manufacturing point and river in Michigan, Wisconsin and Minnesota, including also the Susquehanna river in Pennsylvania, the Pensacola section in Florida, the Pascagoula river and branches in Mississippi, with other points of note in the south and the lumbering sections of Vermont and Maine. With this list will be given the average daily cut of the mills, the number of gang saws and circular saws used, the number of shingles made daily, and the number of men employed therein.

2d. It contains in aggregate, the total amount of lumber manufactured in each locality during the season of 1874, with the amount of lumber on hand, logs on hand in mill booms, main booms, and in the streams, to be carried over to 1875, thus giving the entire balance sheet of each lumbering section or rivers, with the same aggregated by states and carried into a general summary for the whole trade.

3d. It gives the latest and most reliable estimates of the standing timber in this country and Canada from the best known authorities; the Law of Michigan governing the inspection of lumber in full, and the rules of inspection in use at Chicago, Albany, and St. Louis, the largest distributing markets in the country; sketches of every Association, Board of Trade, or other Organization of lumbermen in existence; a history of the National Association, its officers and standing committees, etc.

4th. A very important feature of this work is a summary sketch of the timber lands of Wisconsin and Michigan, embellished with a full page map of those states, engraved expressly for the purpose, showing every railroad penetrating the lumber districts of both states, every important manufacturing point and lumbering river, and the sections or counties containing the most of the pine now standing in those states. This department, worth alone twenty times the price of the book, will be under the supervision of Mr. Geo. S. Frost, of Detroit, Michigan, widely known as one of the oldest and most extensive timberland operators in the northwest. The engraving of the map and cost of this department, requires a heavy outlay by the publishers, actuated by the belief that no one interested in the lumber trade would be without a copy of the work, for many times its cost, after once examining it. The book will be sent to any address postpaid for only **75 Cents** and for every book ordered, and not considered by the purchaser actually worth five times its cost, we will refund the money paid, on return of it to our office.

ADDRESS

JUDSON, DICEY & CO.,

Publishers, *Northwestern Lumberman*.

284 Wabash Avenue, Chicago,

FULTON IRON AND ENGINE WORKS,

FOOT OF BRUSH ST., Detroit, Mich. J. B. WAYNE, Treasurer.

MANUFACTURERS OF

GANG MILLS WITH THE PENDULUM SLIDE MOVEMENT,

HEAVY SHORT-STROKE ENGINES, FOR MILLS, ETC.,

Circular Saw Mills, Shafting, Hangers, Etc.

READ THIS! PENDULUM SLIDE—OSCILLATING GANG.

Office of C. B. BENSON, OTTER LAKE, LAPEER CO., MICH., Sept. 12, 1874.

J. B. WAYNE, Esq., Detroit, Mich.—Dear Sir: In response to your inquiry regarding the working of the Pendulum Oscillating Adjustable Movement for Gang Saws, as applied by you to our stock and slabbing gang—will say that I regard it as perfect. The top of lower slides being hung on pivots and bottoms being operated by eccentric from main shaft makes it easily set at any point desired, and gives the saws the perfect whip-saw motion so essential for the free, easy and quick movement of all upright saws, especially gangs. I am so thoroughly convinced of the utility of this improvement that I do not hesitate to recommend it to all who use gang saws. For the superior manufacture of gang sawed lumber I refer you to my lumber yard here. I shall be most happy to respond to all inquiries, and to show parties wishing to see my gangs.

Very truly yours,

S. O. SHERMAN, Manager for C. B. Benson.

ALPENA, Sept. 15, 1874.—Our experience with the above mentioned movement justifies us in heartily endorsing what Mr. Sherman says with regard to it. ALPENA LUMBER CO., per Geo. Prentiss, Pres't.

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The Amount it Cuts, and the number of
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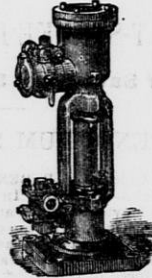
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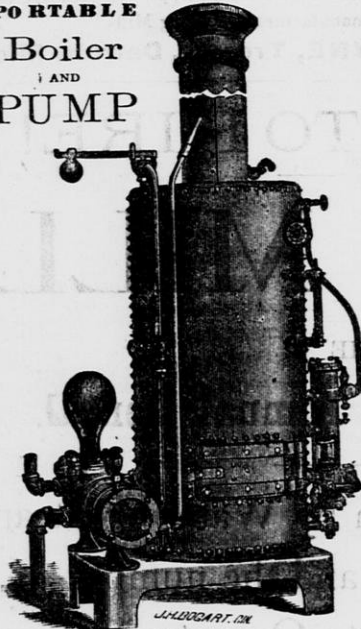
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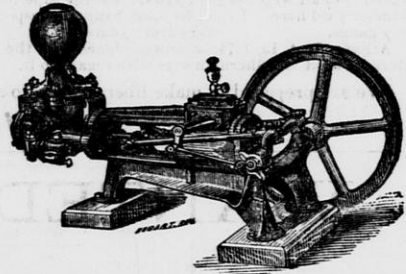
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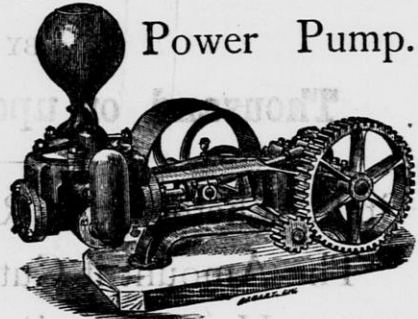


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We desire to call attention to our celebrated VULCANIZED FRICTION BOARD, as a substitute for Leather and Rubber, in Packing, and for Friction Pulleys. It is only a comparatively short time since this article was introduced, but its use is already rapidly superseding that of Leather and Rubber, on account of both its greater cheapness and greater durability, costing less than one-third the price of Leather and one-sixth that of Rubber, and wearing more than double the time. It is absolutely the ONLY article to make a good friction against iron, as it will not slip like leather or wood. It is put up in 50 lb. bundles, in the following SPECIAL sizes:

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19x29 " 20, 25, 30 and 35 sheets to bundle.
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Nos. 5 and 6 are about $\frac{1}{4}$ of an inch thick, and are those most used, and will usually be found the most available for all purposes. For mill men and machinists, for pulleys and packing, and to founders for raising patterns, this article is almost indispensable, and in all our experience we have never found parties, who having used it, would return again to the use of wood, rubber or leather.

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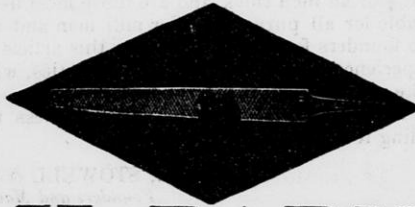
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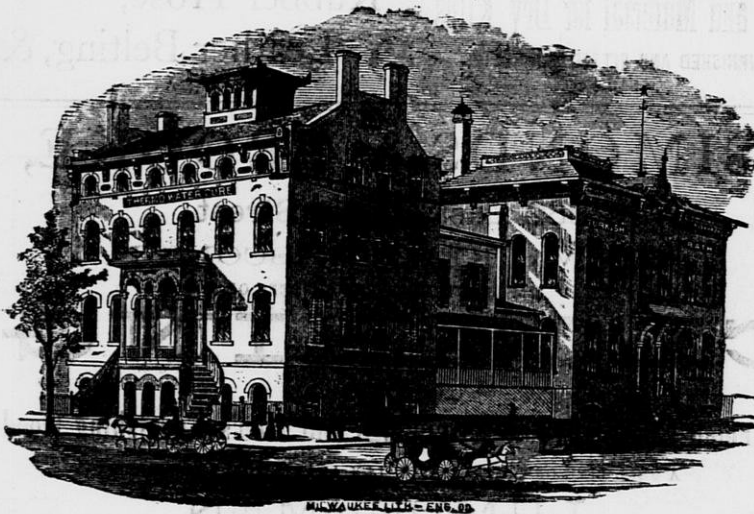
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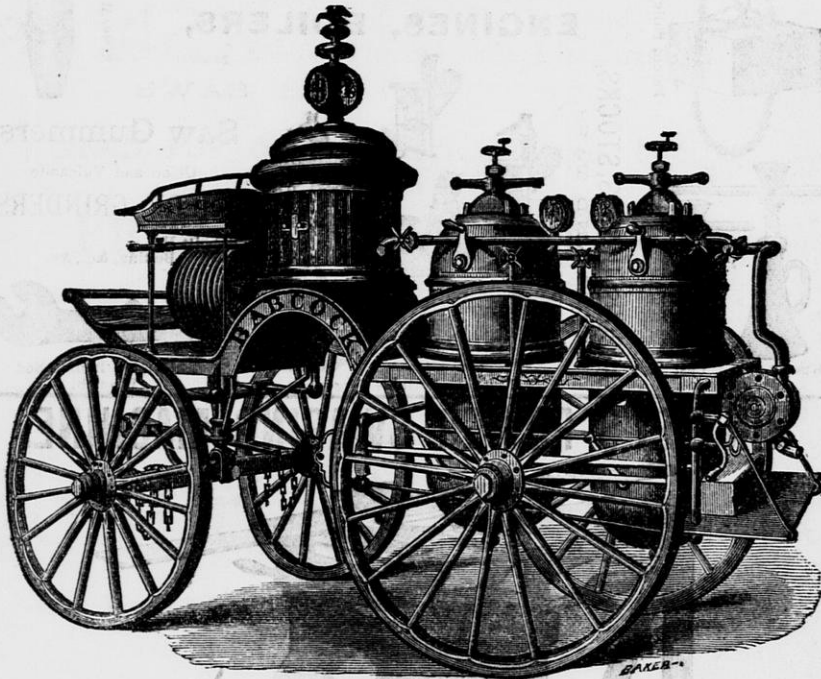
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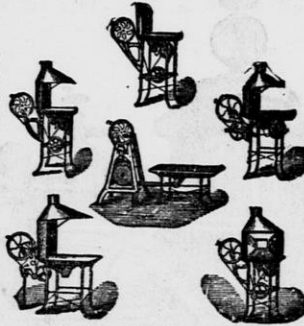
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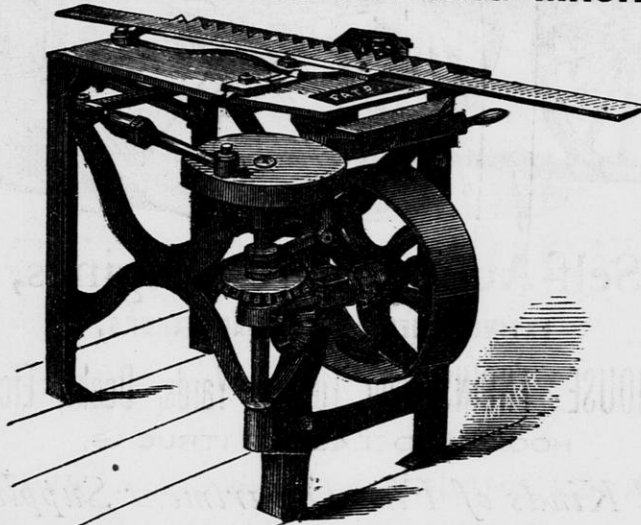


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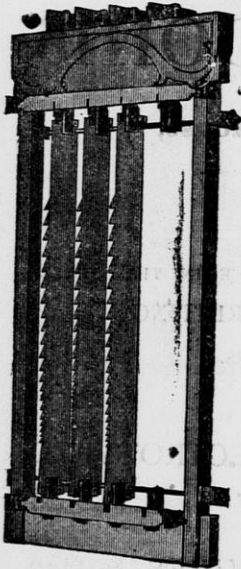
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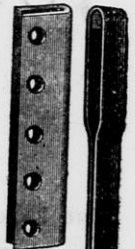
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1874 Season Arrangement. 1874

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The Cheapest and 100 Miles the Shortest Route

Grand Rapid, Saginaw,
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NEWYORK, BOSTON

And All Points in the East.

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PULLMAN'S PALACE SLEEPING CAR ON NIGHT TRAINS
PARLOR CARS ON DAY TRAINS.

Fare \$3.00 Less than any other Route.

Through Tickets for sale at all principal Ticket offices in the Northwest. Also at Company's Office 385 Broadway, Milwaukee, and on board steamers.

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All kinds of Saws Gummed and Straightened, and made as good as new. When sending Circulars, it is necessary to mark the log side of the saw, or send instructions in regard to it. All orders promptly attended to. Agent for Henry Disston & Co.'s celebrated Saws. A full stock of Saws constantly on hand.

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TAYLOR & DUNCAN,

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Blowing Engines, Mill and last Furnace Machinery,
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" North— " 8.30 A.M. Fr't—12.05 P.M.

Wis. Central R'y Trains leave:

Going South—Passenger—6.45 A.M. 9.15 P.M.
Arrive, " 8.00 A.M. 8.15 P.M.

Union Steamboat Company's First Class Propellers St. Louis, Toledo, Passaic and Canestoe, forming a Line between Buffalo and Green Bay, making direct connections at Buffalo with Erie R'y. The shortest and most desirable route to New York, Boston, Cleveland, Buffalo, Detroit, Portland, Montreal and all Eastern points. One of these Splendid Passenger Boats leaves **ELMORE & KELLY'S** Dock, Fort Howard, at 10 o'clock A. M., on Wednesdays and Saturdays.

AMHERST.

Wisconsin Central Trains Leave:

Going North—Pass—11.06 A.M. Pass 10.22 P.M.
" South—Pass—4.37 A.M. Pass 5.35 P.M.

GRAND RAPIDS.

Wisconsin Valley Trains Leave:

North—12.30 A. M. | South—3.30 P. M.

MERRILLAN.

West Wis. Railway Trains leave:

Going North—Pass—11.05 A. M. 11.10 P. M.
" South " 2.34 A. M. 4.42 P. M.
St. Paul time, which is 25 minutes behind Green Bay time.

WINONA.

Winona & St. Peter R'y Trains leave:

Going West—Passenger—1.05 P. M.
" " Accommodation—5.35 A. M.
" " " 4 P. M.

Mil. & St. Paul Trains Leave:

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" South " 12.25 A. M. 2.50 P.M.
Winona time, which is 25 minutes behind Green Bay time.

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For all points North and South on the Mississippi River

Keokuk Northern Line Packet Co., all points North and South on Mississippi River.

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KANSAS CITY AND THE WEST

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From Chicago to Kansas City, St. Louis, Springfield
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The ONLY LINE running

Reclining Seat Palace Cars

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Run to Kansas City without change.

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☞ The only Line under one management from
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THE EAST and THE NORTH.

Elegant Day Cars

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PULLMAN Palace SLEEPING and DINING CARS

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☞ NO CHANGE OF CARS ☞

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The Direct Route to the

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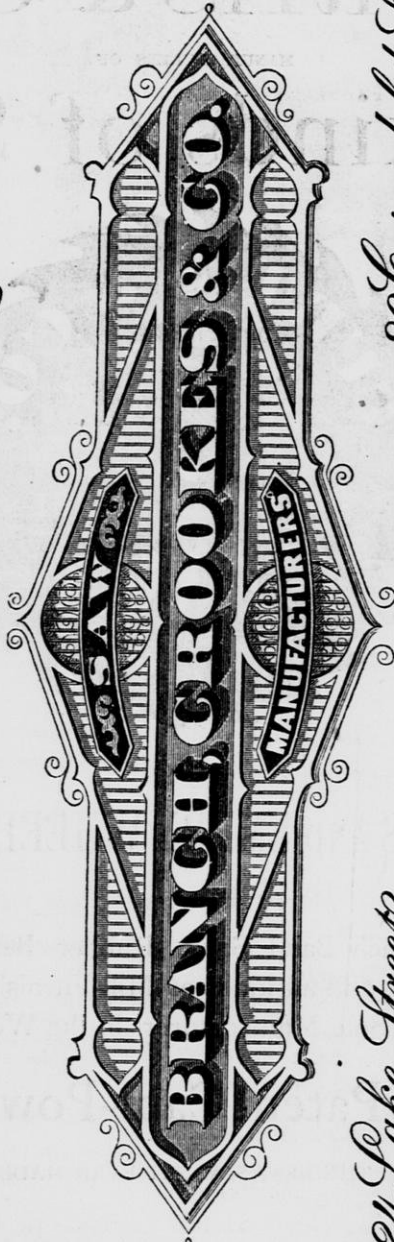
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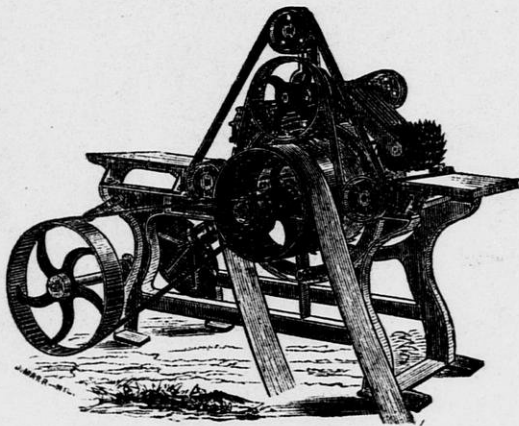


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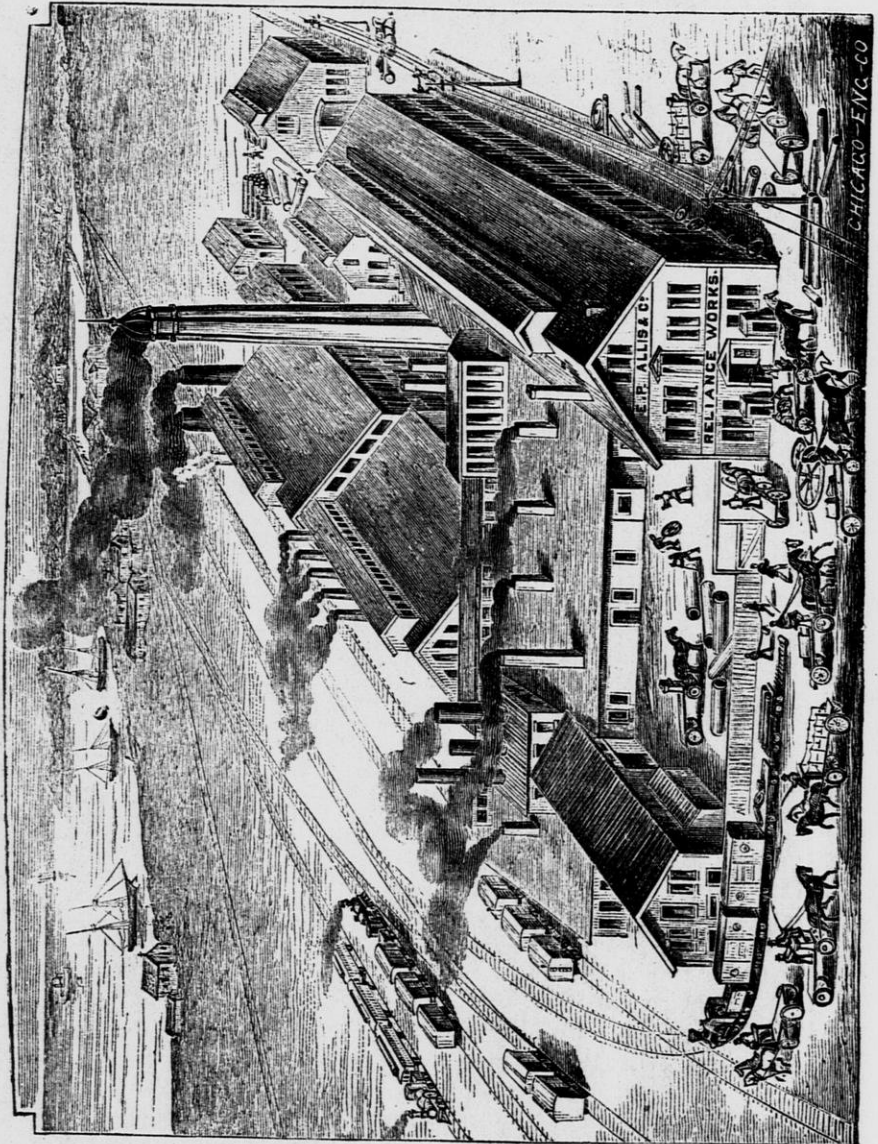
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