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## **The Wisconsin lumberman, devoted to the lumbering interests of the northwest. Volume III. Number 5 February, 1875**

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1875

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# THE Wisconsin Lumberman,

DEVOTED TO THE

LUMBERING INTERESTS OF THE NORTHWEST.

FEBRUARY, 1875.

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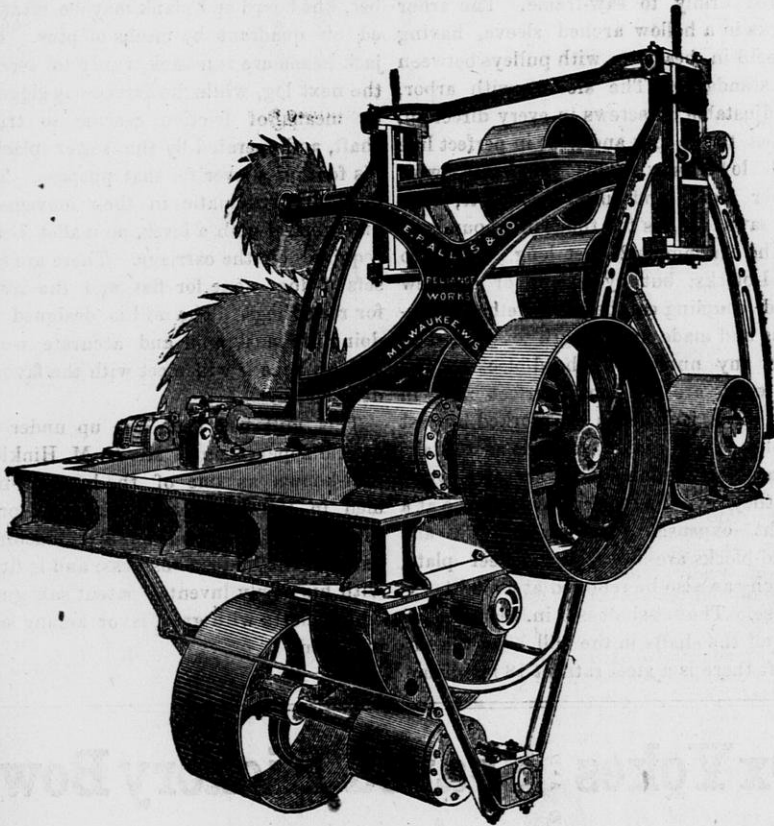
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These paper friction pulleys are so arranged as to be raised or lowered with ease, as may be necessary to secure perfect adjustment. The arbors are of steel, the lower being one in. diameter and the upper one 2½ in. diameter. There is a

tightner-frame and pulley hinged to frame, for tightring 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-

ter. The index wheel is geared to set-shaft with fine, cut wrought iron gears, and as the jack-heads move toward the saw the index wheel turns toward the setter, showing on its figured face the exact distance of jack-heads from saw at any point. This may be used for setting timber, but board and plank may be measured on quadrant by means of pins. The jack-heads are run back, ready to receive the next log, while the carriage is gigging, by means of friction gearing to truck shaft, and operated by the setter placing his foot on a lever for that purpose. The dogs are automatic in their movement, and worked with a lever, no mallet being required on the carriage. There are two sets of dogs—one for flat and the other for round logs. The mill is designed for doing the most rapid and accurate work, and we hope it will meet with the favor it deserves.

This mill has been got up under the careful supervision of Mr. G. M. Hinkley, well-known as one of the best saw-mill men in the country, and the inventor of several important and popular machines used in the lumber business; and is fitted with his newly invented patent saw-guide which meets with great favor among saw-mill men.

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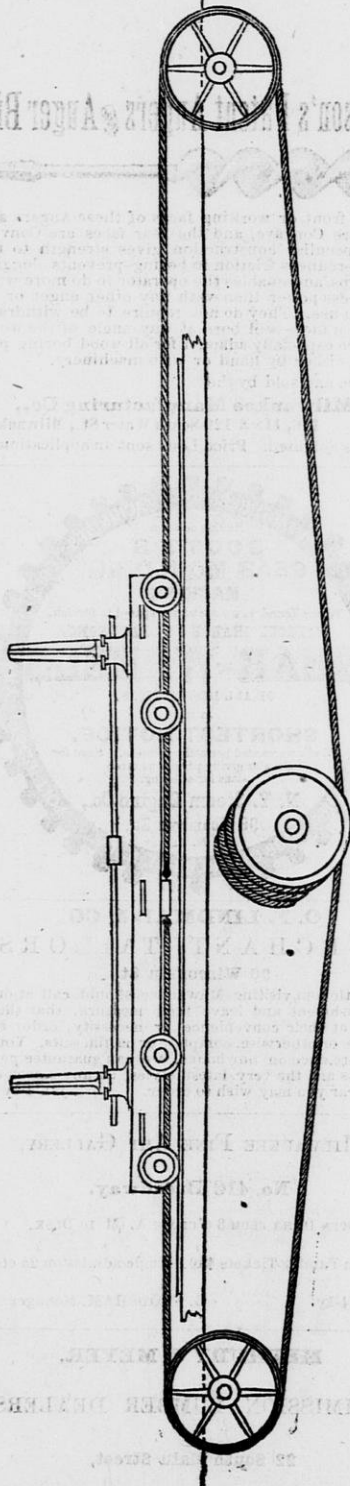
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Wire Rope

## SAW CARRIAGE

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Issued October 8th, 1874.



After one and one-half years use of my Wire Rope Saw-Carriage Movement, I can recommend it as superior to any that have ever yet been used. Its simplicity of construction, reliability of action and durability of the Wire Rope, all combine to make it one of the most desirable movements ever placed in a mill. It obviates all liability to injury of the saw which is liable to occur in the movement, viz: Saw-dust coked in pinion or rack, thereby raising the carriage and log while the saw is in the cut. Dispenses with 1,000 to 1,500 pounds of rack and rack stick to start or stop ten or twelve times per minute. No running off the pinion and handspiking and weighing down rack stick to get back in gear. No stopping to put on new pinions or to tighten the rack. This movement is always in gear and ready to run the whole length of the mill. This movement also produces a steadier motion of the carriage while being drawn to the saw by  $\frac{1}{8}$  inch steel wire rope passed three times around a 28 or 32 inch spiral grooved pulley A, 20 inch face on the feed shaft where the pinion is usually used; then leading off the under side; thence through under the bed timbers to or near the end of the mill, and then over a 28 or 32 inch sheave B, and attached to the carriage girths. The spiral rope wheel and sheave should be of iron as it holds the rope in its form.

For necessary information apply to Wm. H. Hiner & Co., Fond du Lac, Wis.; Geo. Ghaloner, Omro, Wis.; Fletcher & Everett and C. C. Paige, Oshkosh, Wis.; Filer, Stowell & Co. and E.P. Allis & Co., Milwaukee; D. Clint Prescott & Co., Marinette, Wis.; Frank G. Noyes, Clinton, Ia.; Cumming Brothers, Lyons, Ia.; C. & G. Cooper, Mt. Vernon, O.; Rochester Manufacturing Co., Chicago, Ill.; Phoenix Iron Works, Port Huron, Mich.; Wm. M. Ferry & Co., Ferrysburg, Mich.

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T H E

# WISCONSIN LUMBERMAN.

VOL. III.—FEBRUARY, 1875.—No. 5.

## A VOLUME OF STATISTICS.

Our readers will not require any apology for the extent to which we have allowed the annual statistics of the lumber trade to encroach upon our editorial space. We have made it a point each year to include in our earlier numbers the best annual statements that can be obtained from all quarters. Since the establishment of the WISCONSIN LUMBERMAN a great literature has grown up in the interests of the lumber trade. Several publications are now devoted exclusively to this literature and there is hardly a respectable newspaper in which it does not have a department. In order to give the WISCONSIN LUMBERMAN the greatest possible value to its large circle of subscribers we have made a point of reproducing the most valuable contributions relating to this trade from a wider range of exchanges than any one firm can consult. We deem facts and opinions from a variety of sources more acceptable to the majority of practical lumbermen than a publication composed exclusively of our own opinions.

## THE BUSINESS YEAR.

This is the season for the annual harvest of lumber statistics. The Wisconsin Lumberman, according to its custom, makes itself the vehicle of information that must become, to a large extent, the basis of the operations of both manufacturers and dealers during the coming year. From a general study of the field we conclude that the situation of lumbermen is not materially changed from that of this time last year. They have the consolation of knowing that they are at any rate one hard year nearer the favorable reaction that in due time must come. We are encouraged to hope that the most of those in the trade who have had the fortune to weather the gale of commercial disaster thus far, will safely outride it and will presently come into the peaceful waters of good times.

While lumbermen are complaining loudly of their troubles, as they doubtless have some cause to do, it is by no means certain that they have suffered any more than their proportion of the general reaction and depression in business.

The panic in the fall of 1873 made capitalists more than usually cautious. Many investments had proved worthless. Bubble companies of many kinds which had promised large dividends—if not independent fortunes—exploded and left those who had put their money into them heavy



losers. After the panic subsided the adage was verified that "a burnt child dreads the fire" and those who had money to spare instead of investing it in a business, or railroad bonds, offered it on bond or mortgage or deposited it in banks. As a consequence, few new business undertakings of any magnitude have been commenced, while money has been more than usually plenty in the banks.

It is true some complained that they could not get money, notwithstanding its reputed abundance. The trouble with such may have been that their credit was not good enough to command the money they desired or they may have obtained from these banks all the line of discount they ought to have. If a bank thinks that a merchant's capital and business merit a loan of \$10,000, that is all it will let him have. He may want \$20,000 and be refused, and then labor under the impression that money is scarce, while the real trouble is that he has borrowed all he ought to have and it would help him nothing, however plenty money should be. Banks in lending money must see not only whether the security be good eventually but also whether it will be paid when due. A bank will not lend a merchant an extra \$10,000 to fall due next month unless it be convinced not only that he is good but that he will be in a position to pay.

The price of wheat being comparatively low this year, it needs less money than usual, but the opposite is the case with pork, which on account of its high price needs more capital to handle than it has needed for several years past.

The panic, we believe, had the effect of changing somewhat, (if indeed the change was not begun before the panic), the character of our mercantile transactions. The country merchants no longer lay in large stocks of goods, but live more from hand to mouth, ordering articles from our jobbers just as they need them. Farmers have learned to consume less of

the merchants' goods and to pay for them more promptly. The low price of lumber has taught them a variety of domestic uses for it which tell in favor of the trade when the price becomes remunerative.

It is estimated that there are 12,000,000 of people in the United States engaged in active employments. Now they must save on an average \$100 a year. On this basis since the panic the people of the United States have added to their capital, at least \$1,200,000,000. In some localities this money will be put in one kind of investment and in others in something different. In the west quite an amount of it will be put into homes for those who have so far neglected to provide for their families.

There will be no let up to the demand for lumber but it will continue to increase from year to year.

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#### GROWING APPRECIATION OF HARDWOODS.

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The *Lumberman's Gazette* calls attention to the following fact :

It is noticeable that in the older pine lumber districts of the west that attention is given more and more to the manufacture of other woods. It is remembered that about ten years ago, a firm in the Saginaw Valley got out some oak logs. The sticks came down all right, but not a saw on the river could be got to manufacture the lumber. Everybody was too busy with pine to look at anything else, and the venture was not a success. Now the condition of affairs is entirely changed. The various hardwoods of this vicinity, and of the west generally, are coming to be prized something as they deserve to be and operations in lumber are becoming more and more diversified. Especially in Michigan, the pine lands contain vast quantities of valuable hardwoods, which may yet come into the lumber trade as worthy of as much consideration as the famous pine.

# THE LUMBER TRADE

AND

## Manufacture of 1874.

Early in the present month Messrs. Judson, Dicy & Co., of the *North-western Lumberman*, issued a very complete and nicely bound volume of statistical information concerning the Lumber trade of 1874. As the statistics are of a great deal of value and are mainly correct we have seen fit to publish very copious extracts therefrom in this issue of *THE WISCONSIN LUMBERMAN*. A careful perusal of them will give a very good idea of lumber business of the country, and will be especially valuable to preserve for future reference.

## MINNEAPOLIS.

NAME OF FIRM.	Men Employed	SAWS		Average Daily Cut of Shingles.	Average Daily Cut of Lumber.
		Gang.	Circular.		
F. P. Clark.....	52	1	1	.....	116,000
Bedford, Boyce & Baker .....	50	1	1	22,000	60,000
Wm. Brooks & Co.....	25	...	...	75,000	.....
O. C. Merriman & Co.....	100	1	2	55,000	140,000
Gaines, Cook & Co .....	100	1	2	55,000	90,000
Leonard Day & Son.....	100	2	2	60,000	90,000
Todd & Haven .....	50	...	1	100,000	25,000
Eastman, Bovey & Co.....	45	1	1	40,000	100,000
Crocker Bros. & Lamereaux.....	60	1	1	100,000	70,000
Pettit, Robinson & Co.....	60	1	1	40,000	70,000
Morrison Bros.....	80	2	1	35,000	120,000
W. D. Washburn & Co.....	60	2	1	25,000	75,000
Farnham & Lovejoy.....	80	1	2	100,000	100,000
Wm. H. Eldred.....	78	...	...	300,000	.....
J. Dean & Co.....	150	...	...	.....	110,000

Lumber manufactured 1874, feet.....	181,530,000
Amount cut into shingles, pieces.....	149,286,000
Lumber on hand January 1st, 1875.....	104,000,000
Shingles, do do pieces.....	55,000,000
Logs, do do.....	6,150,000
<b>Total to be carried over.....</b>	<b>115,150,000</b>

## COMPARATIVE STATEMENT.

Year.	Logs on hand in spring, old and new.	Lumber and Shingles cut during season.	Logs carried over to next year.	Year.	Logs on hand in spring, old and new.	Lumber and Shingles cut during season.	Logs carried over to next year.
1870 .....	130,000,000	126,000,000	4,000,000	1873 .....	226,380,000	211,530,000	26,000,000
1871 .....	142,456,500	134,856,500	7,600,000	1874 .....	217,689,000	211,530,000	5,150,000
1872 .....	207,600,000	157,600,000	50,000,000				

The above table gives statistics of the Mississippi River above the St. Croix, for the years up to 1874, and the figures for 1874 are only for Minneapolis. The total aggregate of lumber manufactured above Minneapolis, as shown below is 39,700,000, which should be added to the work of 1874, making 221,230,000 feet.

## BOOM COMPANIES.

The Mississippi and Rum River Boom Company was organized December 20, 1856. The capital stock is \$100,000. The number of Stockholders are twenty, and the present officers are :

President, D. Morrison ; Vice President, S. H. Chute ; Treasurer, Geo. A. Camp ; Secretary, James A. Lovejoy.

Directors—D. Morrison, S. H. Chute, James A. Lovejoy, W. D. Washburn, and Joseph Dean.

Log Committee—S. W. Farnham, Joseph Dean, and Leonard Day.

The holding capacity is 100,000,000 feet.

LOCATION AND NAME OF FIRM.	Men Employed.	SAWS		Average Daily Cut of Shingles.	Average Daily Cut of Lumber.
		Gang.	Circular.		
<b>Anoka, Minn.</b>					
St. Paul Lumber Co.,	130	1	2	45,000	90,000
Anoka Lumber Co.,	70	1	1	40,000	50,000
W. D. Washburn & Co.,	150	1	2	25,000	110,000
<b>Pine City, Minn.</b>					
Pine City Lumber Co.,	70	1	2		60,000
<b>North Pacific Junction, Minn.</b>					
J. M. Paine & Co.,	35			30,000	30,000
A. R. Miller,	30				25,000
<b>Binckley, Minn.</b>					
Pine County Lumber Co.,	34				21,000

Amount of lumber manufactured at above points, season 1874,	39,700,000
Amount of lumber on hand January 1st, 1875.....	14,950,000
do logs do do do do .....	4,700,000

## ST. CROIX RIVER.

NAME OF FIRM.	Men Employed	KIND OF SAWS.			Average Daily Cut of Shingles.	Average Daily Cut of Lumber.
		Upright.	Circular.	Gang.		
<b>Stillwater, Minn.</b>						
* Isaac Staples,						
McRusik, Anderson & Co.,	25	1	2	2	15,000	30,000
Northwestern Saw Mills.,	150				50,000	105,000
Seymour Sabin & Co.,	45				30,000	160,000
Schulenberg, Boeckler & Co.,	135				50,000	160,000
<b>South Stillwater.</b>						
St. Croix Lumber Co.,	100				30,000	40,000
John M. Kelter,	25				20,000	22,000

\* Unable to get a report.

Lumber manufactured 1874,	-	-	-	-	85,774,149
Shingles, pieces,	-	-	-	-	41,412,075
Lath, pieces,	-	-	-	-	24,110,375
Pickets, pieces,	-	-	-	-	265,650
Lumber on hand,	-	-	-	-	26,517,000
Shingles, pieces,	-	-	-	-	7,150,000
Lath, pieces,	-	-	-	-	5,300,000
Pickets, pieces,	-	-	-	-	80,000
Logs in mill booms, rafted, and unsold,	-	-	-	-	40,000
Above reported by Du'ant & Wheeler.					

## COMPARATIVE STATEMENT.

Year.	Logs on hand in spring of old and new.	Lumber and Shingles cut dur'g seas'n	Logs carried over to next year	Year.	Logs on hand in spring of old and new.	Lumber and Shingles cut dur'g seas'n	Logs carried over to next year
1871	219,536,000	61,000,000	35,000,000	1873	177,618,000	83,063,976	30,000,000
1872	249,836,851	52,000,000	11,454,539	1871	219,993,221	85,774,000	40,000,000

Comparative statement of logs cut and banked the different winters from 1864 to 1875 :

1864-5	-	108,000,000	1868-9	-	157,612,223	1871-2	-	203,282,312
1865-6	-	85,000,000	1869-0	-	136,149,933	1872-3	-	166,163,628
1866-7	-	86,000,000	1870-1	-	146,536,000	1873-4	-	189,933,221
1867-8	-	87,000,000						

## SUMMARY STATEMENT.

The amount of lumber manufactured in Minnesota, as above reported, during 1874, with amounts of lumber and logs on hand January 1st, 1875, are given in the following table. It is not claimed that the product of every mill in the state is included. The main lumbering points are dealt with and the figures are the actual reports of operators. Individual statements of amounts manufactured and stocks on hand are not given for the reason, that in many cases it would be objectionable and would in no way enhance the value of the report. The "average daily cut" means the

See p. 204 Jan 1875

amount of lumber made by the mills when running ordinary day work. It is well known that there are mills of small capacity, located at points remote from manufacturing centers and even from the streams. They are generally of the class termed "railroad mills" with capacity varying from one to five millions per year. This explanation will apply to all the succeeding tables :

SECTION.	Lumber Cut 1874.	On hand Jan. 1, 1875.	Logs carried over.
Minneapolis, - - - - -	181,530,000	104,000,000	6,150,000
Points above Minneapolis, - - - - -	39,700,000	14,950,000	4,700,000
St. Croix River, - - - - -	85,774,149	26,517,000	40,000,000
Totals, - - - - -	307,004,149	145,467,000	50,850,000

Amount of lumber and logs carried over to 1875, 196,317,000 feet.

## CHIPPEWA RIVER.

NAME OF FIRM.	Men employed.	SAWS		Average Daily Cut of Shingles.	Average Daily Cut of Lumber.
		Gang.	Circular.		
Northwestern Lumber Co. - - - - -	100	1	2	60,000	95,000
Ingram, Kennedy & Co. - - - - -	185	2	4	55,000	183,000
Dan'l Shaw & Co., - - - - -	60	1	2	25,000	110,000
Smith & Buffington, - - - - -	30	...	1	25,000	30,000
Union Lumbering Co., - - - - -	275	4	3	.....	311,000
A. Boyd & Co., - - - - -	30	...	1	.....	30,000
W. B. Estabrook, - - - - -	30	...	1	.....	30,000
Badger State Lumber Co., - - - - -	100	1	1	30,000	100,000
John Robson, - - - - -	100	1	2	30,000	100,000
French Lumbering Co., - - - - -	50	1	1	.....	50,000
Chippewa Lumber Co., - - - - -	30	1	1	.....	50,000
Knapp, Stout & Co., - - - - -	300	7	6	100,000	320,000
Eau Claire Lumber Co., - - - - -	200	4	6	115,000	300,000
Prescott, Burdett & Co., - - - - -	40	1	1	.....	50,000
Wheaton Lumber Co., - - - - -	30	...	1	.....	30,000
A. Huysen, - - - - -	30	...	1	.....	30,000
Stanley Bros., - - - - -	30	...	1	.....	30,000
Jackson Phillippe, - - - - -	30	...	1	.....	50,000

Lumber manufactured 1874, - - - - -	278,000,000
Logs cut into Shingles, Pickets and Lath, - - - - -	86,910,000
Logs on hand January 1st, 1875, - - - - -	75,000,000

## COMPARATIVE STATEMENT.

Year.	Logs on hand in Spring, Old and New	Lumber and Shingles Cut during Seas'n	Logs Carried over to next year	Year.	Logs on hand in Spring, Old and New	Lumber and Shingles cut during Season	Logs carried over to next year. <sup>f</sup>
1871	170,000,000	105,000,000	65,000,000	1872	501,000,000	421,000,000	80,000,000
1873	480,000,000	380,000,000	130,000,000	1874	440,000,000	365,000,000	75,000,000

The Chippewa is a large river with many tributaries spreading out in the heart of a fine pine district. The valley is broad, and is the largest lumber district in the state. The character of the country is similar to that along

the other rivers of Wisconsin. The lumber is principally rafted to markets on the Mississippi, and then finds its way by rail to the consumer west and southwest. Most of the stock on hand belonging to the Chippewa, is held in the yards at various points on the Mississippi, having been rafted during the season. This will be included in the reports of the towns on that river. The principal manufacturing points are Eau Claire, Chippewa Falls, and Menomonie, on the Menomonie River. The waters are rapid, with frequent powers; that at Chippewa Falls has a fall of 28 feet. There are three dams here, within five miles, which have an aggregate of 8,000 horse power. There is a splendid power at Eau Claire, on the Eau Claire River. Another excellent power is on the Menomonie, at Menomonie.

The booms of the Chippewa and tributaries are, first, the Beef Slough manufacturing, booming, log driving, and transportation Company, at, or near, the union of the Chippewa with the Mississippi river. The Company was organized April 27, 1867, with a capital stock of \$100,000. The original stockholders were Moses N. Davis, James Jenkins, Timothy E. Crane, Francis Palms, James W. Bacon, C. Moses, Jr., J. Hunner, Jr., Frederick K. Lane, and Chas. Schaettle. The officers were Moses N. Davis, President, and Timothy E. Crane, John Hunner, Jr., F. Lane and Moses N. Davis, Directors. The present stockholders are, Laird, Norton & Co., Youmans Bros. & Hodgins, of Winona; Pelan & Randall, Dubuque; David Joice, Lyons; W. J. Young & Co., C. Lamb & Sons, Clinton Lumber Co., Clinton; Dimock, Gould & Co., Moline; Keator & Co., Weyerhauser & Denkman, Rock Island; John B. Davies & Son, Davenport; Hershey & Irvine, P. M. Musser & Co., Muscatine; Schulenburg, Boeckler & Co., Hill, Lemon & Co., St. Louis. The officers now are, Fred. Weyerhauser, President and Treasurer; Thos. Irvine, Secretary.

The following is the amount of logs handled in four years: 1871, 12,000,000 feet; 1872, 53,000,000 feet; 1873, 92,000,000 feet; 1874, 133,000,000 feet. The rates of toll are seventy-five cents per thousand feet for logs and timber, railroad ties, two cents each, and fence posts one cent. The capacity of the boom is 200,000,000 feet, and the amount which has been expended upon it is \$300,000, and there will be, during the present winter, \$25,000 more expended in making further improvements.

At Eau Claire, is the Half Moon Lake and Canal Company. The work of this company has been to cut two canals connecting with the Chippewa River, Half Moon Lake, using the latter for holding logs. The lake, undoubtedly, was once the channel of the river. It is a crescent, in form, and a fine natural boom. The upper canal is, perhaps, eighty rods in length. Through this, logs enter the lake. At the lower end of the lake, is the other canal, of about the same length, which is an outlet, and through which a portion of the logs pass to the mills. This company had its origin December 15, 1856. Articles of agreement were entered into by Oden Randall, Jotham Clark and Daniel Shaw, and approved by an act of the legislature March 17, 1859. The first set of officers, elected March 15, 1860, were Daniel Shaw, President; Donald Kennedy, Vice President; C. A. Bullen, Treasurer, and DeWitt C. Clark, Secretary. April 2, 1864, the charter was amended, granting further privileges and powers to the company. December 25, 1871, it was reorganized. The present officers are Daniel Shaw, President; O. H. Ingram, Vice President; J. S. Huston, Secretary and Treasurer, and G. A. Buffington, Donald Kennedy and C. A. Bullen, Directors.

The Eau Claire Lumber Company have a boom on the Eau Claire River, above their mills and manufactories. The Wilkins Island boom is on the Chippewa, between Eau Claire and Chippewa Falls, and has a capacity of 8,000,000 feet.

The Eagle Rapids Flooding Dam and Boom Company have their boom at Eagle Rapids. The company was organized September 30, 1872. The present officers are, G. H. Ingram, President; A. E. Pound, Vice President; B. E. Reid Secretary and Treasurer, and Thad. C. Pound, A. E. Pound, L. C. Stanley, Colishe Allen, John Robson, John Barron, C. A. Bullen, H. P. Graham, and O. H. Ingram, Directors. The capital stock of the company is \$150,000. The capacity of the boom is 100,000,000 feet. Additional improvements are being made, by which its capacity will be increased.

Knapp, Stout & Co., of Menomonie, have a fine boom above their dam, on the Menomonie river. The overflow gives a large water surface for holding logs.

The railroads crossing this valley are the West Wisconsin, which runs through Eau Claire and Menomonie; the Wisconsin Central, which passes over the northern portion, among the head waters of the river and its tributaries, and the Eau Claire and Chippewa Falls, which is nearly completed.

## BLACK RIVER.

LOCATION AND NAME OF FIRM.	Men Employed.	SAWS		Average Daily Cut of Shingles.	Average Daily Cut of Lumber.
		Gang.	Circular.		
<b>La Crosse, Wis.</b>					
Robert Ross, . . . . .	45	1	1	45,000	50,000
La Crosse Lumber Co., - . . . .	61	2	2	55,000	105,000
W. H. Polleys, . . . . .	32	1	1		23,000
Sill & Fauver, . . . . .	30		2		30,000
La Crosse Packet Co., . . . . .	37				45,000
John Paul, . . . . .	45		2	44,000	60,000
C. L. Colman, . . . . .	46		2	40,000	50,000
Hixon & Withee, . . . . .	45		2	20,000	35,000
T. E. Emery, . . . . .	12		1		17,000
<b>Black River Falls.</b>					
D. J. Spaulding, . . . . .	50		2	50,000	50,000
Lumber manufactured, . . . . .					60,500,000
Logs rafted down the Mississippi, . . . . .					142,500,000
Logs on hand January 1st, 1875 . . . . .					282,000,000
Lumber on hand January 1st, 1875, . . . . .					17,000,000
Logs on hand January 1st, 1874, . . . . .					282,000,000
Lumber on hand January 1st, 1874, . . . . .					11,000,000
Logs " " " " . . . . .					355,000,000

## COMPARATIVE STATEMENT.

Year.	Logs on hand in Spring, Old and New.	Lumber cut during Season.	Logs carried over to next year.	Year.	Logs on hand in Spring, Old and New.	Lumber cut during Season.	Logs carried over to next year.
1871	356,500,000	10,000,000	226,500,000	1872	391,500,000	27,500,000	250,000,000
1873	550,000,000	61,000,000	355,000,000	1874	485,000,000	60,500,000	282,000,000

The logs rafted down the Mississippi from the Black river were as follows: 1871, 120,000,000; 1872, 114,000,000; 1873, 134,000,000; 1874, 142,500,000, which added to the manufactured lumber and logs "carried over to next year," for respective years, equals the amount on hand in the spring for the same year.

The Black river is less in length and size than the other lumber rivers of Wisconsin. Its headwaters are considerably south of the source of that river, and its union with the Mississippi at LaCrosse is north of the Wisconsin, which empties into the latter at Prairie du Chien. The water is rapid, and is quickly affected by rains and freshets. It flows through a broken country, and is lined on either side with high bluffs, with rock cropping out from the banks.

The kinds and character of the timber in this valley are the same as the other central districts of the state, namely: pine, hemlock, cedar, oak, ash, maple, bass, elm, and many other varieties.

The main manufacturing points on this river are Black River Falls and LaCrosse. At the former there were, last spring, 49,000,000 feet of logs; at LaCrosse there are eleven mills, and the owners had logs at the mills and in the river an aggregate of 73,000,000 feet.

This valley is crossed by the Chicago, Milwaukee & St. Paul, the Chicago & Northwestern, the West Wisconsin, and the Green Bay & Minnesota Railroads, and here as everywhere else, the railroads are developing and bringing out the resources of the country.

While the Black river furnishes a fine quality of logs, it is one of the most difficult in the state to operate upon. The driving is attended with a great deal of labor, and then the floods or rises are of short duration, which move the logs but a short distance, when they are laid up for another freshet. These, however, are generally frequent, especially in the early season. There are immense jams formed by these freshets, which are left in huge piles by the receding waters, and are liberally mixed with drift wood, which subjects them to fires in the dry seasons. A patrol is found necessary on the river, at such times, to guard against destruction from this source. The logs moving so slow necessarily ties them up from season to season. Very few reach the mills until the second summer after they have been banked, and many remain in the river several years before they are worked up.

There are a number of mills built and being built along the different railroads crossing the valley; several on Duck Creek, and others in the vicinity of Merrillan. The railroads are assisting the overburdened river, and bringing out the timber of this district.

#### WOLF RIVER.

The aggregate number of saw mills on Wolf river are fifty-nine. Of these, Oshkosh has twenty-two, and five shingle mills beside. All of the saw mills but five, cut shingles. Fond du Lac has eleven saw mills, and also manufactures shingles largely. Winneconne has three, and the other towns have from one to three each.

The pine forests through which this river and its tributaries flow, are extensive, and in quality equal to any in the state. As in all pine lands, there are tracts of barrens, but these are less than in most districts. There is considerable hard wood timber of fine quality. There are excellent farming lands, and these are being occupied as fast as the country is opened by railroads and other improvements necessary for the settlement of a new country. The upper waters are rapid, and with a comparatively steady flow.



LOCATION AND NAME OF FIRM.	Men Employed.	SAWS		Average Daily Cut of Shingles.	Average Daily Cut of Lumber.
		Gang.	Circular.		
<b>Oshkosh.</b>					
Switt & Scott	85			55,000	60,000
Osborne & Christenson,				125,000	
L. E. Knapp,	30				30,000
Andrew Thompson,	40			125,000	
Foster & Jones	112			80,000	35,000
Buckstaff Bros. & Chase,	40			50,000	30,000
J. Laab & Co.,	30				25,000
L. P. Sheldon & Son,	33				32,000
L. B. Reed,	40			35,000	35,000
Conlec, Beach & Co.,	80			40,000	40,000
Webb & Albert,	31			100,000	
James & Still,	45			42,000	35,000
Morgan & Bro.,	50			47,000	40,000
Spalding & Peck.	62			45,000	45,000
Wm. Campbell & Sons,	50			60,000	40,000
Doe & Miller,	69			40,000	45,000
G. W. Pratt & Co.,	40			35,000	42,000
S. Radford & Bro.,	36				30,000
Ripley & Mead,	60			45,000	30,000
Derby & Curran,	14			100,000	
R. McMillan & Co.,	110			50,000	45,000
C. N. Paine & Co.,	110			75,000	45,000
P. Sawyer & Son,	30				35,000
Marshall Harris,	40				33,000
J. H. Weed & Co.,	25			22,000	32,000
Stevenson, Badger & Co.,	25				30,000
J. S. Fraker,	36			100,000	
<b>Fond du Lac.</b>					
C. J. L. Myer,	50	2			60,000
Mihills & Co.,	125			100,000	80,000
Moore, Galloway & Baker,	60			33,000	63,000
Alex. McDonald,	40			32,000	32,000
G. W. Sexmith,	60			40,000	55,000
Meryman & Co.,	50			30,000	30,000
J. Q. Griffith & Son,	45			50,000	40,000
<b>Winneconne.</b>					
Ingersoll, Rising & Co.,	36				40,000
McNutt & Killip,	25			50,000	
Jones, Wellington & Co.,	90			50,000	75,000
McArthur & Trask,	35			30,000	30,000
<b>Omro.</b>					
Webster & Foster,	40	1		30,000	28,000
Stillman & Rich,	40	1		75,000	27,000
<b>New London.</b>					
Hale & Springstead,	15	2			25,000
H. S. Dixon,	10	2			25,000
<b>Northport.</b>					
Brown & Co.,	45			30,000	38,000
<b>Shiocton.</b>					
W. D. Jordan,	15	1			15,000
Mason, Wood & Co.,	22	1			20,000
<b>Neenah.</b>					
J. Hengerford & Sawyer,	18			60,000	15,000
<b>Menasha.</b>					
Potter & Dutchman,	18			60,000	2,000
Hewett & Jones,	30			70,000	20,000

Lumber and shingles manufactured 1874,	-	-	-	-	152,600,000
Logs on hand Jan. 1st, 1875,	-	-	-	-	35,000,000
Logs put into the river, winter 1871-2,	-	-	-	-	176,000,000
“ “ “ 1872-3,	-	-	-	-	205,000,000
“ “ “ 1873-4,	-	-	-	-	141,000,000
Lumber on hand Jan. 1st, 1875,	-	-	-	-	125,000,000
Logs on hand Jan. 1st, 1874,	-	-	-	-	46,000,000
“ “ “ “ 1875,	-	-	-	-	35,000,000

The rise and fall of waters are less sudden than on the Black and Chippewa rivers, giving the loggers a decided advantage in driving. The booming facilities of the Wolf are very fine. The Bay Boom, which is a Bay of Poygan lake, can hardly be excelled. It has now a capacity for 100,000,000 feet, and may be increased, if necessary, to double that amount. There are four others above, and within eight miles, with capacity as follows: Boom I land, 3,000,000; Merton Boom, 8,000,000, 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 enters Poygan lake about a mile west of Bay Boom.

The officers of the Wolf River Improvement Co. are: John Lynch, President; Thos. Daly, Secretary; J. Lynch, Tom. Wall, C. C. Paige, H. S. Dixon, Thos. Daly, Directors.

The country along the lower Wolf is quite level, although sufficiently rolling to afford good damage. The bottoms are wide, and heavy with elm, ash, oak, bass and other lowland timber. In the pine districts the land is more rolling, and high up among the head waters, it is broken, and puts on, somewhat, the character of mountains.

The Pine river, which empties into Poygan lake at Tuscan, may be considered a tributary of the Wolf. It rises near the Wisconsin; its course is slightly south of east. There is a large quantity of hard wood and some very fine scattering pine. At Tuscan, as well as other points in the southern part of the Wolf River District, attention is given to charcoal burning—a fine quality is manufactured, and a handsome profit realized in the business.

Upon the whole, this is a rich timber district, not alone for its pine, but its fields of hard wood enter largely in making up the aggregate of its wealth. It is crossed by two railroads, namely, the Wisconsin Central, and the Green Bay & Minnesota. The former crosses the Wolf at Giles Landing, and the latter farther north, at New London. These roads are important auxiliaries in developing Northern Wisconsin, and are quickening the lumber as well as the other business along their lines.

The Menominee Indian Reservation consists of ten townships in Shawano county, and adjoining this on the southwest, is the Stockbridge tribe (a remnant of this tribe) with a reservation of one-half a township. The Wolf flows through the center of Menominee Reservation, from north to south. The Red river runs through the west half and joins the Wolf near the center, and the West branch of the Oconto swings through the eastern portion. There are nearly four townships of good pine. The remainder of pine lands are barrens, or have been devastated of the timber. There is a broad ridge or table land, extending diagonally from the northeast to the southwest, across the reservation, which is good farming land, and heavily timbered with hard wood.

The Indians on this reservation number 1,300, and cultivate not to exceed 2,000 acres. They were put on this reservation in 1856.

## THE WISCONSIN RIVER

LOCATION AND NAME OF FIRM.	Men Employed.	SAWS		Average Daily Cut of Shingles	Average Daily Cut of Lumber
		Gang.	Circular.		
<b>Wausau,</b>					
J. & A. Stewart, - - - - -	32	2			100,000
John C. Clark, - - - - -	24	1	30,000		60,000
B. G. Plumer, - - - - -	15	1			40,000
H. Daniels, - - - - -	11		35,000		
Herman Miller, - - - - -	12	1			18,000
<b>Knowlton,</b>					
Stark Bros, - - - - -	12	1			25,000
<b>Mosinee,</b>					
Joseph Desert, - - - - -	26	1	30,000		60,000
S. Kronenwetter, - - - - -	12	1	18,000		20,000
<b>Sherman,</b>					
C. P. Hazeltine & Co., - - - - -	24	1	20,000		50,000
Kelley Bros., - - - - -	48	2			95,000
<b>Trap River,</b>					
John S. Callon, - - - - -	26	1			50,000
<b>Pine River,</b>					
Pine River Mill Co., - - - - -	22	1			50,000
<b>Jenny Bull Falls,</b>					
Scott & Andrews, - - - - -	25	1	30,000		60,000
<b>Rib River,</b>					
Rib Mill, - - - - -	20	1	30,000		30,000
<b>Big Eau Pleine River,</b>					
J. Weeks, - - - - -	12	1			20,000

There are a number of mills at and below Stevens Point. The aggregate figures in the following table represents the entire product of the Wisconsin river :

Lumber manufactured 1874,	-	-	-	-	119,600,000
Logs on hand January 1st, 1874,	-	-	-	-	30,000,000
Lumber on hand January 1st, 1875,	-	-	-	-	50,000,000
Logs do do do	-	-	-	-	0,000,000
					92,500,000
Lumber on hand January 1st, 1874,	-	-	-	-	40,000,000
Logs do do do	-	-	-	-	70,000,000
					110,000,000

## COMPARATIVE STATEMENT.

Year.	Logs on hand in spring old and new.	Lumber Cut during season.	Logs carried over to next year.	Year,	Logs on hand in spring old and new.	Lumber Cut during season.	Logs carried over to next year.
1871	80,000,000	70,000,000	10,000,000	1873	195,000,000	125,000,000	70,000,000
1872	210,000,000	145,000,000	65,000,000	1874	155,100,000	119,600,000	30,000,000

The Wisconsin is the most crooked river in the state. It rises in the north part and near the Michigan line. Its general course through the

pine country is south. At Portage City it swings to the west and joins the Mississippi at Prairie du Chien. Its tributaries are numerous and spread out in the very heart of the pine forests of Wisconsin. The principal lumbering points are Port Edwards, Grand Rapids, Stevens Point, Mosinee, Wausau, and Necedah on the Yellow river. Its main northern tributaries are Yellow, Little Eau Pleine, Big Eau Pleine, Big Eau Claire, Rip, Trap, Prairie, Devil Creek, Copper, Spirit, Tomahawk, Pelican and Lone Creek. All of these are more or less lumber streams. The Wisconsin is rapid with frequent water powers. At Grand Rapids it has 30 feet fall. With a slight expense the whole river might be converted to an immense power, second to none in the state. There are fine powers at Mosinee, Stevens Point and Wausau. The latter has a fall of 24 feet. In fact they can be obtained at almost any point on the river. The Booming facilities of the river are fine, that at Stevens Point has a capacity of 100,000,000 feet. The Stevens Point Boom Company was organized October 26th, 1873, and is composed of forty members. The officers are, President, E. D. Brown; Vice President, John Rennie; Secretary, D. L. Jones; Treasurer, H. D. McCulloch; Directors, E. D. Brown, John Rennie, Wm. Weston, G. L. Park, N. A. Thompson, John Phillips, J. A. Walker, W. H. Gilchrist and W. J. Clifford. The amount of logs handled 1874 was 8,500,000 feet, and in 1873, 16,000,000 feet. The Garrison Boom at Grand Rapids is also estimated at 100,000,000 feet, and at Wausau the present capacity of 30,000,000 feet will be increased to 100,000,000 feet, by improvements being made from time to time as the business demands. There passed through this latter boom last year 18,000,000 feet. The Boom Company was organized under a special act of the Legislature, March 1871 with a capital of \$25,000. It has since been increased to \$74,000. The amount expended up to the present time is \$43,000. The officers are, President, Alex Stewart; Vice President, John C. Clark Secretary and Treasurer, J. A. Farnham. The toll is forty cents per thousand.

The driving of the Wisconsin will compare favorably with other streams of the state. The numerous rapids make it somewhat difficult to raft and the extreme length caused by its great bends and serpentine course, requires considerable time to get the lumber out below the mills. But this difficulty is fast being removed by the several railroads crossing the state, from east to west. The Wisconsin Central diagonally crosses the valley, reaching up among the headwaters of its western tributaries and the Wisconsin Valley road is crowding its way directly up the river and now terminates at Wausau. The Portage City & Stevens Point Railroad is nearly graded, and in order to secure its land grant from the government, must be completed next year. This will also give another outlet for the lumber of the valley. The time is near at hand when the transportation of lumber in this valley will be changed wholly to rail. The quality of pine is among the best of the state, running largely to uppers. The lands are rolling, alternating with ridges of hardwood and pine. There is considerable hemlock, cedar, tamarack and a variety of other timber. The building of the above roads has stimulated the construction of many mills along their lines back from the river. Much attention is being given to the working up of hardwood. Several stave and heading factories are built and being built, especially in the southern part of the valley.

The amount of lumber manufactured on the line of the Wisconsin Central Railroad this year is 20,000,000 feet. There has been built on this road during the last two "years twenty-one lumber and shingle mills.

## MENOMINEE RIVER.

NAME OF FIRM.	Men Employed	SAWS		Average Daily Cut of Shingles	Average Daily Cut of Lumber
		Gang.	Circular.		
The Kirby Carpenter Co., - - -	250	5	1		178,894
The Ludington, Wells & Van Schaick Co., - -	190	2	3		144,487
N. Ludington Co., - - -	120	2	1		102,083
Menominee River Lumber Co., - - -	150	1	2		110,856
H. Witbeck Co., - - -	65	1	1		82,558
Hamilton & Merryman Co., - - -	120	1	1	50,000	67,708
W. McCartney, - - -	30	1	1	30,000	25,444
Lumber manufactured 1874, - - -					123,837,535
Math, pieces do do - - -					29,787,243
Pickets do do do - - -					1,103,333
Shingles do do do - - -					11,767,000
Log- on hand January 1st, 1875, - - -					6,505,000
Lumber on hand do do - - -					4,575,000

The shores of Green Bay are low, and gradually change from marsh to swamp, then to level dry land, and finally become broken and mountainous. The pine is in dense groves that crowd closely upon the swamps that skirt the bay, and reach far back among the hills of the interior. There is considerable hard timber in this tract, in separate bodies, interspersed quite liberally with soft pine.

The number of rivers are nine, namely: the Escanaba, Cedar, Menominee, Peshtigo, Oconto, Pensaukee, Little Suamico, Big Saamico and the Fox. But little lumbering is done on the Escanaba and Cedar rivers; they are more mining districts. The Menominee is by far the largest lumbering river that empties into the bay; its tributaries are numerous, and furnish floating for a large section of country. The logs on this stream are worked up at the three villages at its mouth; Menominee, Michigan, on the north bank, and Marinette and Minnekaune, of Wisconsin, on the south. The aggregate number of mills are eleven, one of which manufactures shingles exclusively, and one was not operated during 1874.

The main boom is just above the rapids; a dam is thrown across the river here which sets the water back a long distance, and gives a large area of comparatively still water. To divide the pressure of the immense weight of the logs, piers and lines of spiles are set at short distances over the pond. The river is the only limit to the capacity of this boom.

The total amount of value of property in mills, dockage, tugs, scows, real estate, (including pine lands), teams, camp equipage and other property employed in the manufacture of lumber in the Green Bay District, including the small rivers, Ford, Dry, and Monistique, may be safely estimated at \$15,000,000. The whole number of mills are 45; eight of these have not been operated this season.

At Ford River, Mich., the amount of lumber cut was 18,000,000 feet, the work being done by one mill—that of the Ford River Lumber Co., 2,260,000 feet of logs are being carried over at the mill, the lumber all being held at the company's yards in Chicago.

LOCATION AND NAME OF FIRM.	Men Employed.	SAWS		Average Daily Cut of Shingles	Average Daily Cut of Lumber.
		Gang.	Circular.		
Cedar River, Mich. Hubbard & Wood, - - - -	60	2			60,000
Peshtigo, Wis. Peshtigo Co., - - - -	250	3	3		240,000
Flintville, Wis. Lamb, Watson & Co., - - - -	48		1		20,000
Pensaukee, Wis. F. B. Gardner Co., 2 mills, 1 at Little Sturgeon.	175			50,000	160,000
Lumber manufactured at above points, 1874,	-	-	-	-	44,880,915
Shingles manufactured, pieces,	-	-	-	-	6,007,000
Lumber on hand January 1st, 1875,	-	-	-	-	1,263,000
Logs on hand January 1st, 1875,	-	-	-	-	15,786,000

OCONTO RIVER.

NAME OF FIRM.	Men Employed	Average Daily Cut of Lath.	Average Daily Cut of Shingles	Average Daily Cut of Lumber.
J. W. Wells & Co., - - - -	45		100,000	10,000
Holt, Balcom & King, - - - -	130			105,000
Wm. Brunquest, - - - -	40	20,000		60,000
L. M. Pierce, - - - -	58		75,000	50,000
Hunter, Orr & Co., - - - -	65	20,000	150,000	30,000
England, Taylor & Co., - - - -	76	25,000		90,000
Jacob Spies, - - - -	35	12,000	30,000	25,000
Oconto Co., - - - -	100	20,000	40,000	100,000
Lumber manufactured at Oconto, 1874, feet,	-	-	-	50,000,000
Amount logs cut into shingles, estimated,	-	-	-	16,000,000
Lumber on hand January 1st, 1875,	-	-	-	8,000,000
Logs do do do - - - -	-	-	-	8,000,000
Total lumber manufact'd Green Bay District as reported above,	-	-	-	236,718,450
Logs reported on hand,	-	-	-	32,551,000
Lumber on hand January 1st, 1875,	-	-	-	13,838,000

SUMMARY STATEMENT.

SECTION	Lumber Cut, 1874.	On Hand Jan. 1, 1875.	Logs Carried Over
Chippewa River, - - - -	279,090,000		75,000,000
Black River, - - - -	60,500,000	17,000,000	282,000,000
Wisconsin River, - - - -	119,600,000	50,000,000	30,000,000
Wolf River, - - - -	152,600,000	125,000,000	35,000,000
Green Bay District, - - - -	236,718,450	13,838,000	32,551,000
Totals, - - - -	847,508,450	205,838,000	454,551,000

The number of men employed, as reported, is 6,669.

## The Wisconsin Lumberman.

MANISTEE, MICHIGAN.

NAME OF FIRM.	Saw Mills		Saw Mills	Saws	Men Employed	Average Daily Cut of Lumber	Lumber on hand Jan. 1, 1873.	Amount of Logs at Mill and in Rivers Jan. 1st.	Average Daily Cut of Shingles	Amount of Shingles		Amount of Shingles on hand.	Lath and Pickets Manufactured	Total Manufacture, Feet.
	Saw Mills	Shingle Mills								Gang	Circular			
Tyson, Sweet & Co.,	2	1	2	4	130	225,500	500,000	3,000,000	75,000	15,500,000	4,900,000	400,000	4,900,000	16,379,687
Chas. Reiz & Bros.,	2	1	2	3	150	133,400	500,000	7,000,000	75,000	15,500,000	4,900,000	400,000	4,900,000	23,100,000
Gifford, Ruddock & Co.,	1	1	1	3	85	110,000	150,000	7,000,000	75,000	15,500,000	4,900,000	400,000	4,900,000	23,100,000
* Leitch & Stakoe,	1	1	1	1	25	33,500	150,000	500,000	75,000	15,500,000	4,900,000	400,000	4,900,000	20,900,000
Horace Tabor,	1	1	2	2	33	31,800	80,000	500,000	75,000	15,500,000	4,900,000	400,000	4,900,000	7,700,000
+ Filer & Sons,	1	1	2	2	35	44,600	200,000	4,000,000	75,000	15,500,000	4,900,000	400,000	4,900,000	9,180,735
Stronach Lumber Co.,	1	1	2	2	60	93,500	300,000	5,000,000	75,000	15,500,000	4,900,000	400,000	4,900,000	12,480,370
Dennett & Dunham,	1	1	2	2	28	36,000	300,000	250,000	75,000	15,500,000	4,900,000	400,000	4,900,000	5,566,400
Louis Sands,	1	1	2	2	70	80,333	1,000,000	1,000,000	75,000	15,500,000	4,900,000	400,000	4,900,000	14,818,984
Cushman, Calkins & Co.,	1	1	2	2	80	80,333	300,000	1,000,000	75,000	15,500,000	4,900,000	400,000	4,900,000	13,385,323
Canfield & Wheeler,	1	1	2	2	50	66,000	4,200,000	9,000,000	75,000	15,500,000	4,900,000	400,000	4,900,000	13,868,583
Wheeler, Magill & Co.,	1	1	2	2	50	51,800	2,850,000	2,800,000	75,000	15,500,000	4,900,000	400,000	4,900,000	9,978,692
J. H. Shrigley & Co.,	1	1	2	2	30	50,600	1,400,000	2,000,000	75,000	15,500,000	4,900,000	400,000	4,900,000	9,020,000
Engelman, Bebeck & Salling,	1	1	2	2	70	82,500	1,500,000	1,500,000	75,000	15,500,000	4,900,000	400,000	4,900,000	11,959,000
R. G. Peters & Co.,	1	1	2	2	100	77,000	150,000	5,000,000	75,000	15,500,000	4,900,000	400,000	4,900,000	14,300,000
Chapron & Co.,	1	1	2	2	20	150,000	150,000	150,000	75,000	15,500,000	4,900,000	400,000	4,900,000	2,300,000
Davis, Woodruff & Co.,	1	1	2	2	25	150,000	150,000	400,000	75,000	15,500,000	4,900,000	400,000	4,900,000	1,650,000
Wing & Hinnes,	1	1	2	2	25	150,000	150,000	400,000	75,000	15,500,000	4,900,000	400,000	4,900,000	2,134,806
B. W. Kies & Co.,	1	1	2	2	20	150,000	150,000	200,000	75,000	15,500,000	4,900,000	400,000	4,900,000	385,000
G. W. Robinson,	1	1	2	2	20	150,000	150,000	200,000	75,000	15,500,000	4,900,000	400,000	4,900,000	385,000
now	1	1	2	2	26	150,000	150,000	200,000	75,000	15,500,000	4,900,000	400,000	4,900,000	385,000
Russell, Currier & Co.,	1	1	2	2	26	150,000	150,000	200,000	75,000	15,500,000	4,900,000	400,000	4,900,000	385,000
Totals,	17	6	31	1130	1,250,266	10,130,000	49,550,000	673,000	104,650,000	1,200,000	200,311,913	200,311,913	200,311,913	200,311,913

\*Burned, †Run one Circular only.

There are two Boom Companies at Manistee. The Filer City Boom Company was organized in 1869, and has a capacity of 50,000,000 feet. Its officers are, E. G. Filer, President; T. J. Ramsdell, Secretary and Treasurer, B. W. Kies, Superintendent.

The Boom Company, of Manistee, was organized in 1869, and has a capacity of 400,000,000 feet. Officers: John Canfield, President, T. J. Ramsdell; Secretary and Treasurer, E. D. Wheeler, Superintendent.

A sketch of Manistee River and its lumbering facilities will be found in an article elsewhere headed "Pine Timber Lands of the Northwest." Every lumbering stream in Michigan is described therein. The following very able and complete table of the lumber business of Manistee for 1874 was prepared for this work by Messrs. Canfield & Wheeler.

COMPARATIVE STATEMENT FOR MANISTEE.

Year.	Lumber Manufactured.	Shingles Manufactured. Feet.	Lath Manufactured Pieces.	Year.	Lumber Manufactured.	Shingles Manufactured. Feet	Lath Manufactured Pieces.
1871 ...	161,000,000	2,500,000	1,400,000	1873 ...	183,245,071	15,000,000	
1872 ...	172,295,170	2,900,000	1,500,000	1874 ...	184,022,107	16,289,806	

LUDINGTON, MICH.

NAME OF FIRM.	Men Employed	SAWS		Average Daily Cut of Lumber.
		Gang.	Circular.	
E. B. Ward, 2 mills,	250	2	4	240,000
G. W. Roby & Co., run 1 circular only,	35		2	50,000
Danaher & Melendy,	63		2	120,000
Pere Marquette Lumber Co.,	35		1	50,000
Sweet & Taylor,	55		2	65,000
Foster & Stanchfield,	26		1	50,000
Lumber manufactured 1874,				93,000,000
Lath, pieces, do do				15,000,000
Lumber on hand January 1st, 1875,				3,000,000
Logs to be carried over to 1875,				17,000,000
Logs carried over from 1873 to 1874,				27,800,000
do do do 1874 to 1875,				17,000,000

COMPARATIVE STATEMENT.

Year.	Lumber Manufact'd	Shingles Manufact'd	Lath Manufact'd	Year.	Lumber Manufact'd	Shingles Manufact'd	Lath Manufact'd
1871....	44,995,500	3,532,000	907,000	1873 ....	83,670,000		
1872 ....	74,000,000	2,500,000	925,000	1874 ....	93,000,000		15,000,000



## PENTWATER AND VICINITY.

NAME OF FIRM.	Men Employed	SAWS		Average Daily Cut of Lumber	Average Daily Cut of Shingles
		Gang.	Circular.		
S. A. Browne & Co.,	85		2	72,000	60,000
Wm. Hanna, operated by S. A. Brown & Co.,	12				60,000
Gardner & Moulton,	12		1	15,000	
A. J. Underhill,	18				60,000
*W. H. Bailey,	18				60,000
*Sands & Maxwell,	21		1	10,000	60,000
*John Bean,	10				30,000
*Willett, Aldrich & Co.,	15		1	12,000	30,000

\* The lumber and shingles from these mills is hauled by teams to Pentwater, and then shipped by rail or water.

Lumber manufactured season of 1874,	-	-	-	16,000,000
Shingles do do do	-	-	(estimated)	50,000,000
Lath do do do	-	-	do	2,500,000
Pickets do do do	-	-	do	172,500
Lumber on hand January 1st, 1875,	-	-	-	500,000
No logs to be carried over.				

## WHITE LAKE, MICH.

NAME OF FIRM.	Men Employed.	SAWS		Average Daily Cut of Shingles.	Average Daily Cut of Lumber.
		Gang.	Circular.		
Ferry, Dowling & Co.,	60		2	50,000	75,000
F. H. White & Co.,	28	1	1		45,000
D. C. Bowen & Co.,	30			60,000	
Heald, Avery & Co., 2 mills,	70		3		90,000
Chas. H. Cook & Co.,	25		1		35,000
Dalton Bros.,	35		2		50,000
Staples & Covell,	25		1		30,000
Norris & Green,	10			30,000	
Johnson & Hagaman,	12			35,000	
Martin & Keller,	25		1		30,000
A. B. Bowen & Co.,	23		1		30,000
Lewis & Covell,	23		1		30,000
A. H. Ellwood, water power,	8		1		10,000
J. Alley & Co., not run,			2		
Covell, Nufer & Co., shingle mill being built,					
Lumber manufactured, 1874,	-	-	-	-	55,000,000
Lumber on hand Jan, 1, 1875,	-	-	-	-	5,500,000
Logs carried over,	-	-	-	-	1,500,000
Lumber manufactured at White Lake, 1871,	-	-	-	-	56,609,890
" " " " 1872,	-	-	-	-	75,564,900
" " " " 1873,	-	-	-	-	83,176,168

MUSKEGON.

The Muskegon river district is one of the largest in the State. The river is large, and with its numerous large tributaries, the Little Muskegon, the Tamarac, Middle Branch, Clam River, and other streams, affords lumbering facilities to a greater extent than any other stream in the State. From Higgins and Houghton Lakes, the main river flows through Roscommon, Missaukee, Osceola, Clare, Mecosta, Newaygo and Muskegon counties, while the tributaries reach the counties of Wexford and Montcalm, penetrating the dividing ridge, and reaching timber tracts which divide their products between the eastern and the western slope of the peninsula. From the same district the logs are cut for the Saginaw, and for the Muskegon waters, and at Houghton Lake the same township supplies timber for the Muskegon and the Au Sable of Lake Huron, and on the west, the Manistee, the Pe e Marquette and the White river, divide timber with the waters of the Muskegon, and still further, the latter takes timber from the same territory which supplies the mills of Grand river. This is one of the most important districts of Michigan, as regards the extent and quality of its pine.

NAME OF FIRM.	Men Employed.	SAWS.		Average Daily Cut of Lumber.
		Gang.	Upright.	
Wm. Rutherford & Co.,	35	2		62,000
Wilson & Boyce,	36	2		65,000
C. Davis & Co.,	60	2	1	75,000
Ryerson, Hill & Co., 2 mills,	48	1	2 2	140,000
Cnapin & Foss,	40	1	1	45,000
Mason Lumber Co.,	88	2	1 1	135,000
W. H. Bigelow & Co.,	55	2		60,000
Geo. R. Roberts & Co.,	80	1	2	115,000
Bedler Manufacturing Co.,	75	1	2	160,000
Hackley & Sons, (Wicks' Steam Gang),	75	1	2	100,000
*Bushnell, Walworth & Reed.	50	2		80,000
Swan, White & Smith,	50	1	1	70,000
C. J. Hamilton & Co.,	75	1	1 1	100,000
J. H. Perley,	45	2	1	50,000
Esau Tarrant,	25	1		40,000
A. V. Mann & Co.,	60	2		70,000
Kelley, Wood & Co.,	50	1	1	95,000
Elisha Eldred & Co.,	50	2		60,000
Browne, Nelson & Co.,	76	1	1	100,000
Storrs & McDougal,	50	2		50,000
Torrent & Arms,	80	1	2	110,000
Culbert & Bros., (burned in Dec., 1874),	25	1		40,000
†A. M. Allen,	25	1		35,000
Beaudry, Vallicott & Haines,	27	1	1	40,000

\*Burned Aug 23, 1874; rebuilding. †Burned in June, 1874; just commenced running at the close of the season.

Lumber manufactured, season 1874, . . . . . 295 200,418  
 Lumber and logs on hand January 1, 1875, . . . . . 10,000,000

There was rafted to the mills at Muskegon during 1874, 242,290,418 feet of logs, as reported to the secretary of the Boom Company. There was delivered from White Lake 3,000,000 feet; from the railroads 5,000,000, and from the store boom, held over from 1873, 50,000,000.

There was received at Chicago 213,916,000 feet of Muskegon lumber during the season.

There was manufactured in 1873:—329,688,825 feet; in 1872, 340,000,000; in 1871 263,004,390.

The Muskegon Booming Company was organized in February, 1863. The amount of logs rafted by it since that time has been as follows:

YEAR.	Logs Rafted, feet.	YEAR.	Logs Rafted, feet	YEAR.	Logs Rafted, feet.
1864, . .	96,045,814	1868, . .	213,692,600	1872, . .	315,000,000
1865, . .	108,505,700	1869, . .	267,789,900	1873, . .	402,354,160
1866, . .	157,468,300	1870, . .	198,862,600	1874, . .	242,290,418
1867, . .	288,502,100	1871, . .	250,000,000		

#### GRAND HAVEN AND SPRING LAKE.

NAME OF FIRM.	Men Employed.	SAWS		Average Daily Cut of Shingles.	Average Daily Cut of Lumber.	Number days operated during 1874.
		Gang.	Circular.			
Cutler & Savidge Lumber Co., Mill No. 1, .	70	2			70,000	91½
“ “ “ “ “ 2, .	45	1			45,000	213
“ “ “ “ “ 3, .	35	1			35,000	178½
Munroe, Boyce & Co., . . . . .	32	1			35,000	180
Wm. Bell & Co., . . . . .	30	1			30,000	60
White, Glover & Co., . . . . .	50	2			60,000	150
Batcheller & Slight, . . . . .	70	2			70,000	100
Reynolds & Emlaw, . . . . .	45	1			75,000	100
Stone, Bigelow & Co., . . . . .	25	1			35,000	100
Boyden & Akeley, . . . . .	90		120,000		10,000	200
D. Bakker & Co., . . . . .	20	1			25,000	60
Wyman, Buswell & Co., . . . . .	35	1			40,000	150
Roberts & Kelsey, . . . . .	15	1			20,000	150
Rysdorf & Co., . . . . .	35	2			45,000	75
Friant & Hall, . . . . .	35	1			40,000	150
Sisson & Lilley, . . . . .	35	1 1			70,000	50
A. E. Menardi & Co., . . . . .	80	1 2			100,000	40

Lumber manufactured 1874, - - - - - 87,512,500  
 Lumber on hand January 1st, 1875, - - - - - 34,500,000  
 Logs on hand to be carried over, - - - - - 15,000,000

#### COMPARATIVE STATEMENT.

Year.	Lumber Manufactured.	On hand close Season	Logs Carried over.	Year.	Lumber Manufactured	On hand close Season	Logs Carried over.
1871	80,000,000			1872	95,000,000		20,000,000
1873	117,535,000	40,000,000	35,000,000	1874	87,512,500	34,500,000	15,000,000

The above points are situated at the mouth of Grand river, which has been a lumbering stream for many years. It is one of the largest streams in the State, though its supply of pine is now limited. The pine region drained by the Flat river, in Montcalm county, is the principal source of supply for these mills.

**SAUGATUCK.**

NAME OF FIRM.	Men Employed.	SAWS		Average Daily Cut of Shingles.	Average Daily Cut of Lumber.
		Gang.	Circular.		
Saugatuck Lumber Co.,	120	4		25,000	90,000
Henry Ebmeyer,	30			60,000	
H. B. Moore,	32	1		28,000	33,000
H. D. Moore,	24	2			30,000
Ensign & Bird.	22			50,000	
Thos. Gray & Co..	32	2		30,000	33,000
Lumber manufactured 1874,	-	-	-	-	18,504,591
Lumber on hand January 1st, 1875,	-	-	-	-	5,000,000
Logs on hand to be carried over,	-	-	-	-	2,500,000

**GRAND RAPIDS AND INDIANA RAILROAD.**

The line of the Grand Rapids & Indiana Railroad now extends from Fort Wayne, Ind., north, a distance of over 300 miles, and is an important road to Western Michigan. It passes through some of the finest agricultural and timber lands in the State. There are large amounts of valuable hardwoods as well as pine along its line north of Grand Rapids which are destined to be a great source of wealth to that portion of the state. The finest quality of curled and birds-eye maple are abundant, and a number of mills are being erected for the express purpose of working up these valuable woods. The preceding tables convey a fair idea of the business and prospects of the road.

**DETROIT, LANSING & LAKE MICHIGAN RAILROAD.**

There was manufactured during 1874 upon the line of this road, between Ionia and Howard City, seventy million feet of lumber, and upon its branch to Stanton, in Montcalm County, thirty million, making a total of one hundred million feet. Upon both main line and branch, thirty million feet was on hand January 1st, 1875, and about two million feet of logs. One hundred million shingles were manufactured—fifty million remaining on hand January 1st. This road from Ionia northward passes through some very good pine. Stanton in Montcalm county, the northern terminus of the branch, is situated in the midst of a heavy pine forest of excellent quality. During nine months of 1874, there was shipped over the road 220 car loads of logs, 8,760 car loads of lumber, or seventy million feet, mostly dry, and weighing 173,275,914 lbs, eighty million shingles and 30,539,594 staves.

## CHICAGO AND MICHIGAN LAKE SHORE RAILROAD.

LOCATION AND NAME OF FIRM.	Men Employed.	SAWS.			Average Daily Cut Shingles	Total Lumber Cut, 1874.	Lumber on hand Jan. 1, 1875.	Logs on hand Jan. 1, 1875.
		Gang.	Circular.	Upright.				
<b>Big Rapids.</b>								
Tioga Manufacturing Co.,	40	1						
Tioga Manufacturing Co.,	20	1						
R. W. Moon,	35	1						
L. N. Green,	16	1						
Big Rapids Imp't & M'fg Co.	20	1						
T. D. Stimson,	65	2						
Rodsmith & Co.,	13	1		30,000				
Fitch Phelps,	15	1		40,000				
A. R. Morehouse,	15	1		30,000				
T. W. Green,	15	1		35,000				
W. C. Conant,	15	1		35,000				
W. W. Webster,	12	1		30,000				
T. D. Stimson, shingle mill,	12	1		35,000	26,000,000	18,000,000	1,500,000	
<b>Morgan.</b>								
S. N. Wilcox Lumbering Co.	60	1		25,000	8,000,000	4,000,000		
Dickey & Hutchinson,	25			50,000				
<b>Alleyton</b>								
J. Alley & Co.,	40	1		26,000				
Bracey & Clark,	6	4			5,000,000	1,500,000	300,000	
<b>Holton.</b>								
Blodgett & Byrne,	45	1		50,000	3,000,000	1,000,000	5,000,000	
<b>Muskegon.</b>								
See page —,								
<b>Pentwater:</b>								
See page —,								
<b>Mears.</b>								
J. Kerswell & Co.,	20			35,000				
Benj. Moore,	6							
Morris & Stebbins,	15			25,000				
C. S. Davis & Co.,	25			36,000				
East Golden Lumber Co.	50	1		36,000				
Dewey & Co., (No report).					4,000,000	500,000	1,000,000	
<b>Montague.</b>								
See page —,								
<b>Whitehall.</b>								
See page —,								
<b>Fruitport</b>								
Fruitport Manufacturing Co	10	1		1,000	450,000	5,000		
<b>Richmond.</b>								
C. H. Hudson,	18	1		30,000			600,000	
<b>Sherman.</b>								
S. D. Clarke,	8	1						
A. Sherman,	8	1			1,300,000	150,000		
<b>Grand Junction.</b>								
John A. Wright,	20	1						
Sam. Rogers,	30	1			4,200,000	550,000	2,000,000	
<b>Bredsville.</b>								
W. G. Brown & Son,	6	3						
W. S. Thompson,	7	3			750,000		200,000	
<b>Hartford.</b>								
E. J. Walker,	7	1		4,000				
Huntlers & Co.,	8	1		5,000	1,970,000	12,000		

CHICAGO AND MICHIGAN LAKE SHORE RAILROAD—Concluded.

LOCATION AND NAME OF FIRM.	Men Employed.		SAWS.		Average Daily Cut of Shingles	Total Lumber Cut, 1874.	Lumb'r on hand Jan. 1, 1875.	Logs on hand Jan. 1, 1875.
	Gang.	Circular.	Upright.					
Watervliet.	25	40	3	3				
Swain & Olney, . . . . .	1			1				
J. Sutherland, . . . . .	1			1				
A. Hownd, . . . . .	2			1		1,500,000		
Frank Selten, . . . . .								
Coloma.				1				
A. Boyer, . . . . .				1		100,000	500,000	200,000
J. Knapp, . . . . .								
Benton Harbor.	16			1		3,500,000	5,000	
J. H. Graham, . . . . .							500,000	
Stevensville.				1				
S. R. Brown, . . . . .	6			1				
P. Putnam & Co., . . . . .	5			1				
D. Weaver & Co., . . . . .	8			1				800,000
H. S. Strickland, . . . . .	2			1				
J. Ellis, . . . . .	6			1		200,000		
V. Plee, . . . . .	10							
Morris.								
A. F. Mead, . . . . .	14			4	40,000	1,000,000	60,000	
Bridgemans.								
H. F. Mead, . . . . .	5			1		325,000	20,000	
B. Weed, . . . . .	10							
Deerfield.								
Wm. Hawkhead, . . . . .	8			1		500,000		
Hunterford.								
Ives Lumber Co., . . . . .	60			1				
C. R. Barstow, . . . . .	10			1	40,000			
A. I. Mason, . . . . .	8				40,000	9,000,000	6,000,000	2,000,000
C. J. Price, . . . . .	8							
New Era.								
A. M. Spaulding, . . . . .	5			1	15,000	500,000	50,000	
Clyde:								
Eggleston Hazleton, . . . . .	40			1	20,000	3,282,558	800,000	1,000,000
Blanden Station.								
Edward Cole, . . . . .	18			1		2,000,000	1,500,000	3,000,000
Shelby.								
Hawley & Clark, . . . . .	18			1		3,456,856	300,000	

Total lumber cut 1874,	-	-	-	-	-	-	-	79,034,414
Lumber on hand January 1st, 1875,	-	-	-	-	-	-	-	35,452,000
Logs	-	-	-	-	-	-	-	17,600,000

The total product of mills at points upon the line of this important road is reached by adding to the above the aggregates from Muskegon, White Lake and Pentwater, which would make a grand total of 445,324,832 feet. The amount of lumber shipped over this road is increasing yearly and will make an immense business for many years to come.

## GRAND RAPIDS AND INDIANA RAILROAD.

LOCATION AND NAME OF FIRM.	Men Employed	SAWS.		Average Daily Cut of Shingles	Total Lumber Cut 1874	Lumber on h'd Jan. 1, 1875.	Logs on hand Jan. 1, 1875.
		Gang.	Upright.				
<b>Grand Traverse.</b>							
Hannah, Lay & Co.,	17	3	1				
Griehcks Bros,	3		1		4,722,000		4,308,000
<b>Manton.</b>							
Brandenb'rg, Lackus & Co	50		2	5,000	3,000,000	1,500,000	750,000
<b>Bonds Mills.</b>							
Bond, Bros. & Co.,	14		1		1,100,000	900,000	
<b>LeRoy.</b>							
Kellogg & Sawyer,	35		1				
Smead & Wakeman	15		1		2,000,000	2,000,000	2,000,000
<b>Paris.</b>							
John Harmon,	7		1		2,000,000	300,000	300,000
<b>Big Rapids.</b>							
See page —							
<b>Pierson.</b>							
W. McConnel & Sons,	20		1				
Halcomb & DeWolf	16		1				
Pead Bros - -	10		1				
Watters, Bros. & Co,	15		2				
L. H. Dolph, -	12		1		12,000,000	3,650,000	1,100,000
<b>Sand Lake.</b>							
E. Ware & Co., -	19		1				
Heilner & Crabb,	24		1	30,000			
S. Ritley, -	11			30,000			
Baird & Farnum,	17			50,000			
Stone & Seeley,	32		2	30,000			
T. Haitley, -	14			30,000			
J. R. Malloy, -	14			30,000			
A. Pangburn, - -	19			30,000			
R. E. French, -	13			25,000			
L. G. Carpenter, -	14			28,000			
Cook, Kindley & Co,	40		1	30,000	12,000,000	5,000,000	10,000,000
<b>Lockwood Mills.</b>							
Geo. French, -	15		1	25,000			
Geo. French, - -	15			25,000			
E. Grosvenor, - -	11		1				
W. Bushnell, - -	40		1				
P. Gerdon, -	12			20,000			
White & Cook, - -	40		1	25,000			
J. B. Squires, - -	15			25,000			
M. J. Durfee, - -	15			25,000			
H. Graham & Co,	9		1				
E. Cox, - - -	6						
Wm. Kellogg,	20		1		12,000,000	6,500,000	
<b>Cedar Springs.</b>							
W. L. Barber, - -	12		1	20,000			
Udell & Prentice, -	10		1				
A. S. Jennison, - -	10		1	18,000			
S. Ipse, - - -	15		1	16,000			
C. B. Moore, - -	15		1				
Campbell & Co,	10		1				
Peter Benson, - -	12			20,000			
Morris & Co, - -	12			15,000			
John Far, - - -	5			15,000			

GRAND RAPIDS AND INDIANA RAILROAD—Continued.

LOCATION AND NAME OF FIRM.	Men Employed	SAWS.			Average Daily Cut of Shingles	Total Lumber Cut 1875.	Lumber on hand Jan. 1, 1875.	Logs on hand Jan. 1, 1875.
		Gang.	Circular.	Upright.				
G. W. Becker, - -	9				15,000			
Chauncy Petou, - -	9				18,000			
E. P. Hayes, - - -	9				15,000			
M. J. Clark, - - -	12				15,000			
M. J. Durfee, - - -	10				10,000			
J. R. Squires, - - -	8				15,000			
Joseph Myers, - - -	10				15,000	7,000,000	5,700,000	750,000
<b>Edgerton.</b>								
James Cain, - - -	5		1		15,000			
S. Porter, - - -	4				10,000			
Preston & Davis, - - -	4				10,000			
Truax & Co, - - -	5		1		15,000			
Munn & Jones, - - -	6		1		20,000			
Coon & McMann, - - -	7				10,000			
J. H. Pendersen, - - -	4		1					
Dennis Porter, - - -	6		1		10,000			
G. Becker, - - -	6		1		10,000			
M. C. Kidder, - - -	10		1		15,000	6,000,000	3,000,000	
<b>Rockford.</b>								
Taber & Hopkins, - - -	15		1		40,000			
Brown & Stickney, - - -	9		1		18,000	500,000	400,000	
<b>Stanwood.</b>								
W. B. Delawater, - - -	15		1		20,000			
Francisco & Bro, - - -	15		1		27,000			
J. Bell, - - -	20		1		27,000	1,000,000		
<b>Fyfe Lake.</b>								
J. W. Gilbert, - - -	30		1		15,000			
S. W. Thompson, - - -	12		1			350,000	3,500,000	200,000
<b>Kalkaska</b>								
O. S. Abbott & Co, - - -	11		1		23,000	1,000,000	500,000	400,000
<b>Boyne Falls</b>								
Nelson & Powers, - - -	10		1					200,000
<b>Byers.</b>								
Fitch Phelps, - - -	10				25,000			
Wells & Pierce, - - -	10				25,000			
Morehouse & Seaman, - - -	18				25,000			
<b>Ma: celena.</b>								
Andress & Huff, - - -	6		2			100,000		150,000
<b>Grand Rapids.</b>								
Robinson, Solomon & Co, - - -	17		1					
Michigan Barrel Co, - - -	15		1	1				
L. H. Whitley & Co, - - -	40		2					
C. C. Comstock, - - -	35		2	1				
A. B. Long & Co, - - -	75		1	2				
Wonderly Lumber Co, - - -	80		1	3				
I. L. Quimby, - - -	18			1				
W. T. Powers, - - -	17			2		63,000,000	40,000,000	

Total lumber manufactured 1874, - - - -	130,422,000
Lumber on hand January 1st, 1875, - - - -	69,809,000
Logs on hand January 1st, 1875, - - - -	20,158,000



## NEWAYGO.

NAME OF FIRM.	Men Employed	SAWS.			Average Daily Cut of Lumber.	Average Daily Cut of Shingle.
		Gang.	Circular.	Upright.		
Newaygo Co.,	100	3	2	1	100,000	
F. Mathews,						10,000
H. Wood,						10,000
James Hervon,	7					20,000
Shoemaker & Morley,	9		1	1		40,000
Fred. Gaurreiler,						20,000
Lumber cut 1874,						5,000,000
Lumber on hand January 1, 1875,						5,000,000
Logs on hand January 1, 1875,						500,000

The Grand Rapids, Newaygo & Lake Shore Railway is the only shipping outlet for the above mills. Its connections with the several important lines centering in Grand Rapids, give the best facilities for shipping east and south. Newaygo county contains a considerably quantity of good pine.

## ALPENA.

NAME OF FIRM.	Men Employed.	SAWS.			Yearly Capacity Shingles.	Yearly Capacity Lumber.
		Gang.	Circular.	Upright.		
F. Gilchrist,		1	1	1		7,000,000
Hillard, Churchill & Co,	80	1	2	1		12,000,000
Richardson, Avery & Co,	40	1	2	1		12,000,000
Folkerts & Butterfield,		1	1	1		7,000,000
Alpena Lumber Co.						12,000,000
Campbell, Potter Co,	35	1	1	1		7,500,000
Mason, Luce & Co,	28		2		20,000,000	6,000,000
A. F. Fletcher & Co.	40		1		15,000,000	8,000,000
Bewick Comstock & Co,		1	2		16,000,000	8,000,000
J. S. Miner,				1		8,000,000
J. S. Sanborn,	45	1	2			12,000,000
Campbell & Nugent—Shingles only,						
Gillett & Eales, do do	25				10,000,000	
C. F. Kimball, do do						
B. Cushman, do do	35				20,000,000	
B. R. Young & Co. do do						

The amount of lumber manufactured at Alpena, repeated application by letter and telegram failed to disclose. The amount manufactured in 1873 was, seventy-five million feet. The work for 1874 probably reached about the same amount.

Lumber on hand close of season,						30,000,000
Logs do do do						15,000,000

SAGINAW RIVER.

NAME OF FIRM.	Men Employed	SAWS			Yearly Capacity
		Gang.	Circular	Upright	
O. A. Ballou & Co, mill at Kawkawlin,	75	2	1	1	15,000,000
Moore, Smith & Co.,	65	1	2		10,000,000
Taylor & Moulthrop,	45	1	1	1	10,000,000
Keystone Salt and Lumber Co.,	115	2	2	1	25,000,000
E. C. Litchfield, shut down Sept. 1,	28	1	1		5,000,000
H. W. Sage & Co,	100	2	1	1	40,000,000
C. F. Brooks,	60	1	1	1	12,000,000
Laderach Bros,	18	1			4,000,000
Malone & Gardiner,	44	1	2		10,000,000
J. M. Rouse,	15	1			4,000,000
J. Carrier & Co,	54	1	1	1	11,000,000
J. McEwen,	54	1	1	1	10,000,000
Chapin & Barber,	55	1	1	1	12,000,000
Dolson, Chapin & Co,	60	1	1		12,000,000
Folsom & Arnold,	75	2	1		15,000,000
Pitts & Cranage, new mill, operated 90 days,	75	1	2		18,000,000
Jas. Shearer & Co., run 100 days,	63	1	1	1	12,000,000
Gates & Fay,	40	1	1		12,000,000
H. M. Bradley & Co., 2 mills,	70		3	1	16,000,000
Eddy, Avery & Co.,	65	1	2		16,000,000
Hay, Butman & Co.,	40	1	1		12,000,000
N. B. Bradley, Trustee,	64	1	2		14,000,000
S. H. Webster,	55	1	1		10,000,000
A. Rust & Co.,	45	1	1	1	10,000,000
Whipple, Prameley & Co.,	35	1	1		9,000,000
Albert Miller,	78	1	1	1	13,000,000
Wm. Peter,	85	1	2		15,000,000
S. McLean & Son,	28		1	1	10,000,000
Hitchcock & Ingraham,	28	1	1		6,000,000
Richards, Miller & Co.,	48	1	1		12,000,000
Watrous Bros, & Co.,	20	1			4,500,000
John McGraw & Co.	350	3	2		40,000,000
F. F. Gardner & Co., not run,	22		1		4,000,000
Oneida S. & L. Co.,	45	1	1	1	10,000,000
Rust, Eaton & Co., 2 mills,	70	2	1	2	18,000,000
A. T. Bliss & Bro.,	30	1	1		10,000,000
W. R. Burt & Co.,	80	2	1	1	20,000,000
N. Y. & Mich. Salt & Lumber Co., run very little,	30		1	1	10,000,000
T. Saylor & Co.,	50	1	1		8,000,000
E. C. Litchfield, not run,	52	1	1		10,000,000
T. Jerome & Co.,	50	1	1		10,000,000
E. F. Gould,	60	2	1		10,000,000
Sturdevant, Green, Plummer & Co.,	45	1	1	1	12,000,000
W. Callum,	21	1			4,000,000
H. A. Ballentine & Co,	32	1	1		10,000,000
Shaw & Williams,	45	2		1	10,000,000
C. Merrill & Ca.,	45	1	1	1	12,000,000
Grant & Saylor,	21		1		4,000,000
G. Davenport & Co.,	22		1		4,000,000
Jesse Hoyt, 2 mills,	31	1			8,000,000
Owen & Brewer,	50	1	1		12,000,000
Tuttle & Pease,	24		1	1	4,000,000
East Sawinaw M'fg Co.,	19		1		5,000,000
Chas. Lee,	18	1		4	4,000,000
Warner & Eastman,	62	1	2		13,000,000

## SAGINAW RIVER—Continued.

NAME OF FIRM.	Men Employed.	SAWS.			Yearly Capacity
		Chang.	Circular.	Upright.	
Sears & Holland, . . . . .	65	1	1	1	15,000,000
E. Briggs, not run, . . . . .	20	1	1		9,000,000
Lathrop, Ischo & Co., not run, . . . . .	16	1	1		6,000,050
Gebhart & Esterbrook, . . . . .	40	1	1		12,000,000
J. F. Rust & Co., . . . . .	70	1	1	1	10,500,000
Bundy & Youmans, . . . . .	40		1	1	7,000,000
Burnham & Still, . . . . .	21		1		4,000,000
Eaton, Potter & Co., . . . . .	16		1		5,000,000
Pearson, Wright & Co., . . . . .	85	2			17,000,000
Tolfree, Simpson & McLean, . . . . .	40	1	1		10,000,000
G. F. Williams & Bro, burned, July. Rebuilding, . . . . .	50	1	2		15,000,000
Barnard & Binder, . . . . .	45	1	1	1	12,000,000
Tilden & Sackett, burned in June, . . . . .	50	1	1	1	10,000,000
Heather & Allison, not run, . . . . .			1	1	10,000,000
Swift & Lockwood, . . . . .	50	1	1		10,000,000

In making up the following aggregate statement for the Saginaw Valley, reports from 53 firms, operating one or more saw mills, are used. Six mills were not operated. From nine, no report was obtained. Of those reported, the total footing shows 433,464,900 feet manufactured. The ten not reported have, according to the *Courier* report of 1873, a capacity of eighty million five hundred thousand feet, and cut in 1873, seventy-six million six hundred thousand. Allowing that the same amount was cut by the same mills in 1874, the product of the Saginaw Valley would be five hundred and sixteen million sixty-four thousand nine hundred. Upon that basis the following summary table is made:

Lumber manufactured 1874, feet, . . . . .	516,064,900
Lumber on hand January 1st, 1875, . . . . .	88,605,304
Logs on hand January 1st, 1875, . . . . .	170,859,471

A large amount of lumber which should be reported "on hand" at the Saginaws, is held at various points on Lake Erie.

## COMPARATIVE STATEMENT.

Year.	Lumber manufactured	Year.	Lumber manufactured	Year.	Lumber manufactured
1863	133,500,000	1867	423,963,190	1871	529,684,878
1864	215,000,000	1868	457,396,225	1872	602,118,980
1865	250,639,340	1869	523,500,830	1873	619,867,021
1866	349,767,884	1870	576,726,606	1874	516,064,900

In the above comparative statement, the figures are taken from the Saginaw *Courier* annual report, and include the product of various inland mills in Bay and Saginaw counties, varying with the years from ten to thirty-five million feet. This should be taken into account when making comparison between 1874 and other seasons, as only the mills of the Saginaw river are included in the detailed statement for that year.

The Saginaw Valley has always been considered the greatest of the lumber manufacturing centers of Michigan. Some of the finest saw mills in the world may be found within its limits. The amount of capital invested in mill property therein, exclusive of pine lands, has been estimated at over \$5,000,000.

The timber district which is tributary to the Saginaw river extends in every direction, having its manufacturing center on that stream, and extending from Saginaw City to the Bay. It is drained by the waters of the Flint, the Cass and Tittabawassee, the Pine and the Chippewa rivers, with their numerous tributaries, and embraces from one hundred and fifty to two hundred townships, of 23,000 acres each, not including the region along the Saginaw Bay.

Upon the lines of the different railroads penetrating and crossing this district, are a large number of saw mills with varying capacity. Those upon the Flint and Pere Marquette Railway manufactured in 1873 over 55,000,000 feet, their product for 1874 being less than that amount; exact figures not being obtainable. The Jackson, Lansing & Saginaw railroad mills cut in 1873, 50,000,000 feet of lumber, and their cut for 1874 will vary but little from that figure. The Saginaw Valley and St. Louis road, extending from Saginaw to St. Louis, in Gratiot county, has about fifteen miles along and adjacent to its line, which cut in 1873 about 58,000,000 feet of lumber. They have a cutting capacity of about 75,000,000 per season, and cut between one-third and one-half their capacity in 1874.

FLINT.

NAME OF FIRM.	Men Employed.	SAWS.			Average Daily Cut of Lumber.	Average Daily Cut of Shingle.
		Gang.	Circular.	Upright.		
Wm. Crapo, . . . . .	80	1	2	1	100,000	20,000
Wm. Hamilton, . . . . .	25		1		35,000	
A. McFarlan, . . . . .	45		2		50,000	20,000
C. C. Eddy, . . . . .	20		1	1	30,000	
J. B. Atwood, & Co, . . . . .	35		1	1	45,000	
W. Busenbark, . . . . .	25		1	1	35,000	
Begole, Fox & Co., . . . . .	65		2		60,000	20,000
Lumber manufactured, 1874, . . . . .					50,000,000	
Lumber on hand January 1st, 1875, . . . . .					35,000,000	
Logs, " " " " . . . . .					18,000,000	
Shingles manufactured, (pieces) about . . . . .					7,000,000	
Lumber manufactured, 1873, . . . . .					62,763,707	
Lumber on hand January 1st, 1874, . . . . .					39,500,000	
Logs on hand January 1st, 1874, . . . . .					31,500,000	
Lumber manufactured, 1872, . . . . .					64,670,865	

## AU SABLE.

NAME OF FIRM.	Men Employed	SAWS		Average Daily Cut of Shingles	Average Daily Cut of Lumber
		Gang.	Circular.		
Smith, Kelley & Dwight,	52	2	2		60,000
*Loud, Gay & Co's Lumber Mill,	40	2	3		55,000
do do Timber Mill,	30	3	2		45,000
Backus & Bro,	45	1	1		45,000
Saginaw Shingle and Lumber Co., not run					
Colwell, Smith & Langstaff,	30	1	1		35,000
Moore & Sumner—new mill, not run		2	1		
Clork & Co.—Shingle mill, not run,					
John McDonald, do do					

\*Only run one Circular.

Lumber manufactured 1874,	-	-	-	-	38,000,000
Lumber on hand January 1, 1875,	-	-	-	-	5,000,000
Logs do do	-	-	-	-	10,000,000

The amount of lumber cut at this point in 1873 was 32,648,865 feet, and the amount on hand at the close of the season 8,166,211 feet. Logs on hand January 1, 1874, 11,000,000.

## CHICAGO.

Comparative statement of stocks on hand for five years at Chicago.

	Jan. 1, 1875.	Jan. 1, 1874.	Jan. 1, 1873.	Jan. 1, 1872.	Jan. 1, 1871.
Sawed Pine Lumber and Timber, M feet	344,109	327,877	321,943	233,871	295,124
Hewn Pine Timber, M feet,	142	640	660	567	3,628
Shingles, M pieces,	81	29,542	40,301	70,970	22,702
Lath, M pieces,	39,551	28,830	27,751	17,550	33,082
Pickets, M pieces,	2,499	1,582	706	1,049	1,322
Cedar Posts, M pieces,	290	79	107	129	155

Receipts and Shipments, from 1847 to 1874.

Year.	Receipts.	Shipments.	Year.	Receipts.	Shipments.
1847	32,118,225		1861	249,308,705	189,379,445
1848	60,009,250		1862	305,674,045	189,277,079
1849	73,259,553		1863	413,301,818	221,709,330
1850	100,364,779		1864	501,592,406	269,496,579
1851	125,056,437		1865	647,145,734	385,353,678
1852	147,816,232	70,740,271	1866	730,057,168	422,314,266
1853	202,101,078	88,909,348	1867	882,661,770	518,903,354
1854	228,336,783	133,131,872	1868	1,028,494,789	551,989,806
1855	306,547,401	215,585,354	1869	997,736,942	581,533,480
1856	456,673,169	243,387,732	1870	1,018,998,635	583,490,634
1857	459,639,198	311,608,793	1871	1,030,328,375	541,222,543
1858	278,943,000	242,793,268	1872	1,183,659,280	417,827,375
1859	302,845,207	226,120,389	1873	1,123,368,671	561,544,379
1860	262,404,626	225,372,340	1874	1,060,088,708	580,673,674

PORT HURON.

NAME OF FIRM.	Yearly Capacity.	Lumber Cut. 1874.	Lath Cut.	Lumber sold. 1874.
Howard & Son,	4,000,000	3,600,000	2,000,000	4,100,000
W. B. & J. Hubbard,	7,000,000	2,700,000	2,096,000	2,957,691
Fred. L. Wells,	5,000,000	2,700,000	1,900,000	3,100,000
Wm. Sanborn & Bro.,	8,000,000	5,250,000	2,855,000	6,000,000
Avery & Murphy,	6,000,000	2,700,000	1,700,000	3,814,176
J. F. Batchelor & Son,	10,000,000	5,000,000	2,523,000	5,265,711
A. & H. Fish, (I. N. Jenness & Co.,)		11,000,000	2,200,000	11,000,000
N. B. Mills,		3,681,349	2,107,000	3,511,274
Total,		36,631,349	17,381,000	39,748,852

Lumber on hand January 1st, 1875.	8,076,579
Logs carried over,	11,636,000
Lumber manufactured, 1873,	58,000,000
Lumber manufactured, 1872,	49,000,000

SUMMARY STATEMENT.

SECTION.	Lumber Manufactured.	Logs and Lumber on hand.
Manistee,	184,022,107	59,680,000
Ludington,	93,000,000	20,000,000
Pentwater,	16,000,000	500,000
White Lake,	55,000,000	7,000,000
Muskegon,	295,290,418	10,000,000
Grand Haven and Spring Lake,	87,512,500	49,500,000
Saugatuck,	18,504,591	7,500,000
Chicago & Michigan Lake Shore R. R.	79,034,414	53,052,000
Grand Rapids & Indiana R. R.	130,422,000	89,967,000
Detroit, Lansing & Michigan R. R.	100,000,000	32,000,000
Newaygo,	5,000,000	5,500,000
Alpena, estimate,	80,000,000	45,000,000
Au Sable,	38,000,000	15,000,000
Saginaw River,	516,064,900	259,165,775
Flint,	50,000,000	53,000,000
Port Huron,	36,631,349	19,712,579
Total,	1,785,482,279	726,577,354

The total product of Michigan for 1874, including the various interior mills, heretofore spoken of, probably approximates 2,000,000,000 feet. The amount of lumber and logs being carried over is small in comparison with the same for the preceding year.

MISSISSIPPI RIVER MARKETS.

LOCALITY.	Lumber on hand Jan. 1, 1875.	Lumber on hand Jan. 1, 1874.	Lumber on hand Jan. 1, '83.
Dubuque, Iowa,	42,000,000	35,000,000	
Clinton, Iowa,	60,000,000		
Davenport, Iowa,	19,460,000	18,690,000	12,528,000
Burlington, Iowa,	40,000,000	35,000,000	
Quincy, Ill.,	15,500,000	15,000,000	
Hannibal, Mo.,	47,000,000	53,000,000	
St. Louis, Mo.,	136,976,898	153,773,584	167,992,401

## ALBANY, N. Y.

The amount of stock on hand at Albany in the beginning of the season of 1874 was 114,000,000 feet, consisting of: Pine, 83,400,000; Spruce and Hemlock, 25,000,000; Hardwoods, 5,600,000. The total receipts for the year were 453,500,000 feet. The total sales of 1874 were 482,950,000 feet, leaving as stock on hand, Jan. 1st, 1875, 84,550,000 feet, as follows: Pine, 66,700,000; Spruce and Hemlock, 12,500,000; Hardwoods, 5,350,000. The sales from the Albany yards were about the same for 1874 as the year previous but prices ruled much lower. The stock being carried over contains from fifty to sixty per cent. more of upper grades than that carried over from 1873.

Comparative statement of stocks on hand at Albany for six years.

YEAR.	Pine.	Spruce & Hemlock	Hardwood.	Total.
1875 . . . . .	66,700,000	12,500,000	5,350,000	84,550,000
1874 . . . . .	83,400,000	25,000,000	5,600,000	114,000,000
1873 . . . . .	79,820,000	25,200,000	4,980,000	110,000,000
1872 . . . . .				86,000,000
1871 . . . . .				95,000,000
1870 . . . . .				83,000,000

**The Forests of Russia.**

According to recent statistics of the forests of Russia in Europe is about 442,897,500 acres, or forty per cent. of the whole area. The forests are very unequally distributed, and internal communication is still very imperfect in many parts of the empire; hence, much of this wealth is at present unavailable. Every year, however, the facilities for transport are increased, and there is a corresponding augmentation in the amount realized. Nearly sixty-five per cent. of the forest land is situated in the four governments of the north—Archangel, Vologda, Olonetz, and the Perm; this equals sixty-five acres to each inhabitant. The governments of the south are relatively poor in timber, and in some parts almost treeless; but since 1842 the forest administration has been engaged in remedying this defect by planting largely. Between 1866 and 1870 upwards of 20,000 acres were planted, exclusive of the action of private owners. The principal trees are Scotch pine, spruce fir,

larch, birch, lime, aspen, and oak. To these may be added for the governments of the south, though relatively playing an unimportant part in commerce, the elm, ash, beech, hornbeam, maple, various poplars and willows, &c. The value of the forest products exported in 1871 amounted to 16,026,553 roubles. But the internal consumption gives a better idea of the immense wealth of these forests. It is only possible to give an approximate estimate of the value, which Mr. Werekha states must be at the very least 265,450,000 roubles per annum. In Russia wood is still either the only or the principal fuel used. The railways consume wood for fuel to the annual value of 7,200,000 roubles. Wooden drinking-vessels, platters, and spoons take the place of pottery and metal in many districts, except in the houses of the rich. Mr. Werekha estimates that 40,000,000 wooden spoons are made every year, but Mr. Weschniakoff, in his account of the domestic industries of Russia, puts the figure at 33,000,000.

## THE SHEER BOOM CONTEST.

What John Hicks Says and What George Ginty Does'n't Say on the Subject.

A large number from the Chippewa Valley are now in Washington, looking after this matter, which seems to be of vital interest to the Beef Slough Company. If Mr. Pond's patent proves good, and we do not believe the parties can secure an amendment to the bill, it will be a severe blow to the Mississippi Logging Company, because without the Sheer Boom, the Slough is of no account in securing logs. Mr. Pond, it is true, might allow them to use the boom there, at large figures, but inasmuch as the Eau Claire Lumber Company owns half the patent, we do not believe he will.

The Washington correspondent of the Oshkosh *Northwestern* has this to say about the matter. Although there are several glaring inaccuracies in this letter, we publish it entire :

"Captain James Jenkins, of Oshkosh, and Dr. M. M. Davis, of Baraboo, on the part of the Beef Slough Boom Company, are here trying to secure the passage of a bill to amend a law passed in June, 1872, concerning the sheer rudder boom. This boom is made by fastening together a certain number of timbers, to which are attached rudders connected together by a rope, chain or other device, so that any change in the position of the rudder changes the position of the boom in the channel. It works upon the same principle as the 'current ferry boat,' which is propelled from one side of the river to the other by the force of the current. These booms, sometimes called fin booms, had been used in the Eau Claire and Chippewa rivers since 1851, and no one thought much about it until August 3, 1868, when a patent

on them was granted to Levi W. Pond, and the Eau Claire Lumber Company. But the patent laws then in force, provided that no patent should hold good if the article patented had been in public use or for sale more than two years before the application for a patent. So the patentee, together with J. G. Thorp, of Eau Claire, and one or two others, secured the passage, in June, 1862, of a bill granting, confirming, and extending all rights under this patent, to the said Pond and the Eau Claire Lumber Company, making it retroactive to cover the time as far back as June, 1870. As soon as the bill became a law, they at once began suits against every man or company using the fin boom, demanding a royalty of 25 cents per thousand, besides heavy damages for infringement of the patent. The sum demanded of the Beef Slough Company will exceed \$100,000, and the aggregate amount of damages for which suits have been commenced under this act of Congress, is more than \$500,000. If carried into the courts, it is believed that the patentee would not recover a cent, but the litigation would occupy several years, and result in needless expense. The Beef Slough Company have resolved to beat it if they can, by procuring an amendment to the law. It is a matter of considerable interest to Oshkosh lumbermen, as many of them are interested in the Chippewa country. Mr. T. E. Crane, of Oshkosh, I believe, built the one from which Pond took his design and secured the patent. The law ought certainly to be repealed. Parties affected by this act reside in Minnesota, Iowa, Illinois, Missouri, Michigan, and Wisconsin, and they will not quietly submit to such extortion. One company alone, the Mississippi River Logging Company, has a capital of \$1,000,000, expends every year upwards of \$600,000, and has mills and other property at Winona, La Crosse,



Lansing, Clinton, Moline, Rock Island, Davenport, Dubuque, and St. Louis. This company uses 20 of the fin booms, some of which were built twenty years ago. Of this subject I shall have more to say before long.

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#### SHADE TREES.

We regard the following from the *New York Sun*, as both sensible and timely. We wish to say, however, that while there is no doubt as to the importance of planting shade trees, it is very important, also, not to overlook the necessity of a well-defined plan or system—one which will not caricature nature, and cause regret to the intelligent observer:

Farmers hold various and widely different opinions in regard to the value of shade trees upon the farm. Much, however, depends upon a man's early life, associations, and education, all of which have their influence in forming a taste and love for the beautiful in nature or otherwise. Some men can neither see nor admire anything except from a utilitarian point of view, and this, perhaps, in its most circumscribed aspect; a tree to them being worth only what it will fetch for timber or firewood. These utilitarian notions are far too common in all new countries covered with heavy timber, and the habit which is first formed through necessity becomes so fixed and universal that barrenness of landscape frequently follows, where an opposite result might have been secured without cost to the original owners of the land. The first generation of farmers destroyed that which the next two or three restore only in part, and at a great expense of time and money. But as these are bygone follies in the older States, we have only to take care of what is left of the old landmarks, and put out new trees whenever they are likely to

be valuable and useful; and in doing so the subject of shade trees upon the farm should be considered as carefully as their value as timber, or for the fruit which they may produce.

The contrast between two regions of country, the one with trees judiciously distributed, and the other without them, is sufficient in itself to make any man favor the former. The generally attractive appearance of a country is certainly one of its strong points, and mankind cling to things of beauty quite as tenaciously as to those of strict usefulness and intrinsic value. Nomadic races seldom inhabit hilly, mountainous, or wooded countries, for these tend directly to fixedness of purpose, and a love of one spot which we term home. A rock, hill, or tree is an object which clings to the memory of both civilized and uncivilized man. This idea may seem somewhat sentimental, but it cannot be denied that it is very potent in its influence upon nations as well as communities.

#### TREES ABOUT FARM BUILDINGS.

A goodly number of shade trees about the farm buildings add much to the general appearance of the place, as also to the comfort of man and beast during the hot days of summer. But many make the mistake of planting too many large growing trees near their dwellings, which, in time, exclude both light and air, and cause the building, standing constantly in the shade, to become unhealthy. In cold climates deciduous trees should always be preferred to evergreens, when planted in positions likely to shade the house, because it is only in hot weather that the shade is desirable, and in winter all the light and solar heat to be obtained are required for both comfort and health. As a rule, we would say, keep all trees of larger growth at least one hundred feet from a dwelling house, using the intervening space as a lawn, in which may be planted small growing trees and shrubs. Evergreen trees should

be employed exclusively for ornamentation, or as windbreaks, but never for shade.

#### TREES IN PASTURES.

It has been frequently urged that trees in pasture encourage laziness in animals, for when such comfortable retreats from the hot sun in summer are at hand, they are likely to tarry too long at these resting places. While it is true that animal instinct may not be any surer preventative against indiscretions in the dumb brute than in man, still, we believe that in all ruminants digestion proceeds more regularly when the animal is comfortably at rest, than when subjected to opposite conditions. Animals appear to be disposed to seek the cool shade of a tree when the heat is oppressive, and it is cruel, to say the least, to deprive them of this comfort. We have always noticed that animals having a comfortable resting place during the hottest part of the day, would feed later at night, as well as commence earlier in the morning; consequently, we fail to see wherein shade trees in a pasture are detrimental to good health or the fattening of animals, as is sometimes asserted. There are certainly two sides to this question, but the more humane practice would be to provide shade, to say nothing of appearance.

#### TREES ON THE ROADSIDE.

Continuous rows of stately trees along the roadside add much to the appearance of a farm or country. But it is urged that shaded roads remain wet and muddy much longer after heavy rains, than those fully exposed to the sun. This is doubtless true, but as an offset we may claim that they are less liable to become dusty, and between the two evils there is not much choice. Deciduous trees only should be planted along roadsides in cold climates, because they afford shade during the season when most needed, if at all. Roadside trees may also interfere with the growth of crops, in the fields

adjoining, by shading, as well as by the absorption of the moisture by their roots, but as we scarcely secure anything of value without some loss, perhaps the pleasure derived from passing over a shady road during the hot weather in summer, as well as the beautiful appearance of such highways, more than compensate for the slight losses which they entail.

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#### LUMBER INSURANCE.

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The following letter from Messrs. Ryan, Johnson & Co., of Sandusky, will be read with interest by all lumbermen and many others who carry insurance in the companies spoken of. Lumbermen, generally, are complaining of the burdens imposed by insurance companies:

SANDUSKY, O., Dec., 14, '74.

*Editor of the Lumberman:*—Will you permit us space in your valuable paper to call the attention of the lumbermen and lumber dealers of this country to the discrimination the "National Board of Underwriters" are making against them.

The companies belonging to that Association are directing their agents to insert the following clause in their policies on lumber and provisions:

"In case of loss under this policy, this company shall be liable for the proportion thereof, this insurance bears, to the value of the property hereby insured."

To illustrate the effect of this clause in politics, we will take our own case. For several years we have carried \$30,000 insurance, on an average of \$80,000 to \$100,000 worth, in yard. Call the average \$90,000, for the sake of ease in calculation.

Now, sir, under the rule we have quoted, if we understand it aright, if a loss of \$30,000 occurs, we collect but about \$10,000, although we pay for an insurance of \$30,000. If the loss should be \$45,000, we can collect

from insurance but \$12,000. So in like proportion until a total loss is reached.

Believing this discrimination against the lumber interest to be unjust, we are declining to insure in companies belonging to the National Board of Underwriters, and would inquire if it would not be to the interest of the fraternities of lumbermen and lumber dealers, to pursue a like course.

Yours, Respectfully,  
RYAN, JOHNSON & Co.

#### FORESTS AND CLIMATE.

Advantage of Timber Belts both in Winter and Summer—The Settlers of Iowa Sighing for the Protection of Wisconsin Pineries.

[Correspondence of the Council Bluffs (Ia.) Farmers' Blade.]

Our readers are all acquainted with the facts in connection with the decrease of rain-fall in countries denuded of timber, and with other facts that show that an increase of rain accompanies the growth of timber on lands that were formerly barren.

Egypt, Persia, and Palestine, in ancient times, had more rain, and fed a much more numerous population than at present. Their deficiency in products is not, however, entirely the result of a lessened rain-fall, for part of it can be attributed to injudicious cropping. Yet the want of sufficient rain is an important element in making up the sum of their calamities.

But it is not in regard to an increase of rain in connection with forests that we wish to speak; but it is in reference to the effect that timber would have upon the temperature of Nebraska.

In considering this question we will go to first principles; and consequently will say many things that are trite to many of our readers, yet the same facts may be new to others.

The first inquiry is, what causes wind?

The answer is, that it is caused by changes in the weight of air in dif-

ferent localities. In one place call it "A," the air may by the action of the sun or other cause, be warmer than in another locality that we will call "B," and being warmer it is expanded, and of course is lighter, and is consequently forced upward by the cold and heavier air of the adjoining locality "B."

It is forced up on the same principle that any body lighter than water is lifted to the surface.

The theory, put down in some of our books, that heat causes the air to rise, and that cooler air rushes in to fill the vacuum, is one of those received *scientific* assertions that on examination proves to be a humbug. There is no vacuum in the case.

The heated air at "A" could not possibly rise, and cause a vacuum, but it is lifted by the heavier air, and the rush of the heavier air is wind.

Now, currents of wind are more or less retarded by the surface over which they travel, and these retardations may be divided into two classes. First, by friction, and, second, by obstructions that change the direction, or other obstructions that cause eddies and whirls.

To illustrate the action of friction by comparing a current of air to a current of water. In the latter, the rapidity of a stream is slightly retarded by friction on the bed of the channel, and the under stratum of water is more retarded than the surface; because the stratum at the surface has only the slight friction of water rubbing against water, while the bottom stratum has the friction caused by water rubbing against the soil.

On the same principle, the water in the middle of a stream, at the surface, flows more rapidly than along the shore, because the friction against the shore retards the flow to some extent.

Having made these remarks in regard to currents of water, we will refer to currents of air.

Wind, in traveling over the ocean,

is retarded very little by friction, and is retarded not a great deal when traveling over a plain as level as the sea; though, of course, it is checked more than on the water, because it cannot slide so easily along the soil as it could on the surface of the sea.

Now we will refer to obstructions that either change the direction of the wind, or cause whirls and eddies.

Among the former obstructions, we will call attention to the mountains as the principal ones. We will illustrate by supposing that the wind is blowing from the north, and it encounters a high mountain range across its path, of course its velocity is checked, and if the mountain is not at right angles to the line of the storm, the wind is diverted from its original course. If the mountain courses from the northwest to the southeast, the wind on the north side of the mountain becomes a northwest wind, while on the south side of it the air is scarcely affected by the storm. But the deflected current will lose some of its velocity, the same as a ball thrown obliquely against a wall loses a part of its speed.

But as we have no mountains here, we will pass by this part of the subject, and consider those obstructions that cause eddies, whirls and calms, during a storm of wind. Of this class, a forest is the most perfect type. It is better than even a city in obstructing the wind, though they should cover an equal area, and be of equal height. With a city the streets afford channels for the passage of the storm, so that there is some of the force of the wind on the lee of a large town, on account of the portion that rushes through the streets. But this is not the case on the lee of a forest. In traversing this the wind is deflected from tree to tree, until its velocity is entirely destroyed, and the lower stratum of air within the forest, and on the lee side of it, is almost calm.

But besides checking the lower

stratum of air, the forest has an effect on the stratum above.

This can be illustrated best by supposing the air was visible. If it could be seen like smoke, you would observe that a current of rushing air striking a line of trees would bend the trees, and then shoot obliquely upward. This cross current of air would check the velocity of the main current to a certain extent, so that the first stratum of wind above the trees would not be as strong as it would have been if the obstruction had been a line of buildings, or a high wall, or any other unyielding object. As we said above, the bending of the trees would create an oblique, upward cross-current that would retard the wind in the stratum just above the trees.

Having referred to friction and obstructions, as affecting the velocity of winds, we will now introduce another principle in regard to currents of wind. It is this: that a controlling current of air will rush in from the direction offering the least resistance. To illustrate: we will suppose a heated section of country is surrounded by an extensive belt of cool air, equally cool on all sides; but that on all sides except on the north, there are belts of timber that would retard the current of air that would set in towards the heated center. The result would be that the controlling current would flow in from the north, as that current would meet the least resistance, consequently a north wind. Whereas, if the resistance had been least from another direction, the wind would have come from that one.

Now, with these facts in regard to the cause of wind, and the effect produced by friction, and by obstructions, we are prepared to consider the advantage of trees in Nebraska.

If every 40-acre lot in the State were encircled by a belt consisting of a row or two of tall trees, the violence of our storms would be completely broken. Every field would be so

sheltered that our orchards and stock would have the advantage of an improved climate.

But timber belts would be of advantage in summer, as well as in winter. They would break the force of the hot, dry winds of summer, and thus save our corn from the blight that sometimes so seriously injures it. It would not only check the force of such winds, but the air would become laden with moisture and cooled in traversing belts of timber, that retained some of the evening dew, and afforded a belt of shade.

And in connection with wind breaks, we will refer to another advantage that would be of importance to the State. Such protection would enable us to produce winter wheat, small fruits, and other products, that are now so often destroyed in winter.

The wind-breaks, especially if they were evergreens, would prevent the wind from sweeping the snow from the soil, and also prevent it from robbing the soil of moisture.

And this would be worth millions to our State. Recollect that wheat and small fruits, when killed by the winter in Nebraska, are not drowned by too wet a soil, nor lifted by a heaving one, but are killed by a winter drouth. The sweeping winds rob the field of moisture, and the roots of your winter wheat stand in a soil as dry as bran. The roots would not be drier if they were hung in the garret.

This condition of things would be greatly changed by frequent belts of timber. The snow that fell would mostly lie on the field, and even if there was no snow, the soil could not be effectually robbed of moisture by the winds, if their force was broken.

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THE WISCONSIN LUMBERMAN will be largely improved during its coming year. No lumberman can afford to be without this publication.

#### A MULISH WOODSMAN.

**The Experience of Two Oshkosh Hunters During the Terrible Storm of Tuesday and Wednesday—One of them Insists that the Compass is Wrong and Throws it Away.**

J. E. Cameron and Peter Sylvester, two gentlemen from Oshkosh, had a very narrow escape from freezing to death during the terrible storm of Tuesday and Wednesday. They had been spending a week in the woods, about twenty miles west of Knowlton, engaged in hunting. On Tuesday they started for home, intending to return in a few days, and therefore leaving their cooking utensils, blankets, etc., at the shanty. When they first started out there was a slight sprinkling of snow falling, but at about ten o'clock it commenced coming down at a very rapid rate, the fierce wind catching it up and whirling it in every direction. The two men trudged on, however, until a little after noon, though the air was so filled with snow that they could not see more than five rods ahead of them. Soon after noon they stopped, built a fire, and prepared some coffee, after partaking of which they started again. Their course was a south-easterly one, the intention being to strike the Valley road, and make the Junction in time for the eastern train on the Central, on Tuesday evening. At this point it may be necessary to state that Mr. Cameron is an old woodsman, while Sylvester has had but little experience in the forest. This being the case, of course Cameron was running the compass, and says but for the circumstance which we are about to relate, would surely have reached their destination that night. At about two o'clock, however, Sylvester began to show signs of weariness, and called a halt. The two men sat down a few minutes and just before starting Cameron took his compass out, to again get his course. Sylvester also looked at it, and very positively asserted that it was wrong. He in-

sisted that the true course for them to take was the one which the needle told them was north. He knew they must go east, or south east, to strike the road, but the compass had got out of order, and was misleading them. In short he had become bewildered, or what is commonly called "turned round," and like nearly everybody else under similar circumstances insisted that the compass was all wrong, while his head was still straight. Cameron remonstrated with him; he had carried the compass many years; it had always brought him out all right, and would on this occasion if implicitly followed. At first S. demurred, but finally gave a reluctant consent to follow his companion. The journey was then renewed. The snow was deep, the air cold, while the storm that raged with such fearful violence seemed to be increasing. They had traveled on for about thirty minutes, when Sylvester again desired to rest. No sooner had the two stopped, than he asked to look at the compass. To look at it was sufficient to again renew the dispute. This time S. asserted positively that he would follow the instrument no longer; he knew it was misleading them. The men were fast friends, but the discussion soon led to high words. Cameron exhausted all his persuasive powers, but he might as well have talked to the huge pines whose broad branches overhung them. His companion, usually of a good disposition, had become as obstinate as a mule. Cameron might follow the compass if he chose, but as for himself, he was going to take his own course. At this point Cameron held the little instrument in his open hand, when all of a sudden Sylvester seized it and threw it as far as he could. The snow lay about 12 inches deep on the ground, and of course any such thing as finding it was out of the question. Cameron says his first impulse was to shoot Sylvester, but this he resisted. The situation of the two men was

most critical. Without food sufficient even for supper, without blankets, deprived of their only compass, while the worst storm known in this section for many years, was howling in all its fury around them. And more than all, one of them had so far lost his course as to insist that they should take a direction that would carry them further and further from the abode of man. Darkness was by this time already coming on. What was to be done? Fortunate, indeed, was it for Sylvester that his comrade was an old woodsman, and one who was prompt to plan, as well as to execute. The compass was gone beyond recovery, and therefore he affected to become converted to his comrade's views in regard to the course which should be taken. He then started in the direction indicated by Sylvester, taking the lead himself. In this way he finally succeeded in rescuing himself and companion from the terrible fate which would otherwise have awaited the latter. As we said before, night was coming on, and it was evident that it would be impossible to get out before the next day. The two then stopped, built a fire, and prepared to spend the night as best they could. Sleep was almost entirely out of the question, and when daylight succeeded in struggling through the fierce storm, which had been raging for twenty-four hours, and was yet howling with increased fury, it found the two men well-nigh exhausted from cold and hunger. But they renewed their weary tramp, as soon as it was light enough, Cameron taking the lead, but constantly bearing to the right. This course, he felt sure, would bring them out, and it did. At about ten o'clock the railroad was reached. Following the track about a mile, the sight of a farm house met their delugated eye. Here they got food, and after enjoying a brief rest, engaged the farmer, whose name we could not learn, to bring them to this city, which they reached in time to

take the evening train for home. Of course Sylvester is more attached to his friend than ever before, now that he has come to realize that he must surely have perished alone in the woods but for Cameron's constancy. Cameron says that Sylvester is a good enough fellow in Oshkosh, but a very poor companion to have in the woods, on a stormy day.

### INSPECTOR GENERAL'S REPORT.

#### Annual Report of the Inspector General of Lumber for the Saginaw District, for the Year 1874.

To his Excellency, John J. Bagley, Governor of the State of Michigan:

I have the honor to respectfully report the following facts and figures pertaining to my office as Inspector General of Lumber for Saginaw Lumber District, for the year of 1874.

There has been regularly reported to me, as inspector under the provisions of the act governing the inspection of lumber, during the season of 1874, 218,743,487 feet. Of this amount

	Feet.
Bay City reported.....	122,505,116
Saginaw City reported.....	48,127,314
Last Saginaw ".....	48,111,057

Total Saginaw District.....218,743,487

#### The qualities were as follows:

	Feet.
First clear.....	777,449
Second clear.....	865,744
Third clear.....	1,102,618
Three uppers (together).....	17,762,478
Total upper qualities.....	20,508,289
Common.....	157,402,432
Culls.....	29,064,437
Straight measure.....	11,768,279

Total as above.....218,743,487

#### I have collected therefor as follows:

For straight measure.....	\$ 176 52
For inspection in qualities.....	51,743 80
For office fees of 4 cts. per m.....	8,749 73

Total receipts.....\$60,670 05

#### I have paid out as follows:

Sub-Inspectors' fees.....	\$51,920 32
Saginaw and Bay City deputies.....	4,000 00
Rents of three offices.....	513 56
Clerks' hire, printing, stationery, etc.....	1,270 99
Expense of re-measuring at Erie.....	318 44
Myself on account, salary.....	2,691 74

Total disbursements.....\$60,670 05

There has also been inspected by inspectors, and statements rendered me by them, of 107,554,386 feet in addition to the above, which was not regularly reported at the time of shipment; from the fact that the owners of the same instructed the inspectors not to report it, generally representing the lumber to be unsold, shipped to their own yards, or for sale on the market.

A few sub-inspectors refuse to give me the amount so inspected by them, and I, for that reason, cannot give so full a statistical report as I could wish; I, however, estimate that about 50,000,000 have been inspected by regularly licensed inspectors, in addition to all above reported, and of which they decline to give in the amount.

The destination of this large amount of lumber will be an interesting item to consider, and I beg to add the same to my report.

#### RECAPITULATION.

	Feet.
Inspected under the law.....	218,743,487
" outside the law.....	107,554,386
Estimated not reported at all.....	50,000,000

Total inspected by sub-inspectors.....376,297,873

#### DESTINATION.

	Under the law.	Outside the law.
New York ports, feet.....	105,327,417	28,561,796
Pennsylvania ".....	17,970,397	7,314,714
Ohio ".....	66,217,941	53,774,010
Illinois ".....	21,456,299	10,110,581
Michigan ".....	8,107,053	442,667
Eastern States, ".....	546,159	91,617
Canadian ".....	118,221	.....
Unknown ".....	.....	7,259,001

Total...218,743,487 107,554,386

In this connection I would respectfully add that whilst the inspection law has many earnest supporters, and probably a majority of both manufacturers and buyers, there is still a very respectable number of both who are violently opposed to it.

It is possible that some amendments might be made removing this opposition. The principal argument used against the system is that it "fetters trade and drives buyers from our market."

This is an open question. The

inference I draw from the foregoing figures is, that such is not the fact. Albany inspection has by common consent been considered the standard for many years, its reputation being the result of its uniformity. Saginaw inspection is intended to be the same. Out of 218,000,000 above reported, more than 120,000,000 went to Eastern customers, who govern their purchases and sales by the Albany standard. I think a repeal of the law would seriously interfere with that trade. A significant fact in this connection is, whilst over 56 per cent. of the lumber regularly passed through the office went to Eastern buyers, only 26 per cent of that *not* passed through the office took that direction.

I take pleasure in acknowledging the uniform courtesy I have received from all with whom I have had official business, and it is particularly gratifying to be able to add that but very few complaints have been made in regard to the manner in which the inspectors have performed their duties.

All of which is respectfully submitted.

A. H. MERSHON,  
Ins. Gen. of Lumber for Saginaw.  
EAST SAGINAW, Mich., Dec. 28, '74.

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#### IMPORTANT LUMBER SUIT ENDED.

The following is a syllabus of the Supreme Court decision, in the case of Sellars vs. the Union Lumbering Company, which went to the court of last resort from Chippewa Falls:

1. Under the practice in this State, there is no such thing as an *interlocutory* judgment in a cause; the only judgment authorized, being one which finally disposes of the rights of the parties.

2. Under sec. 38, ch. 132, R. S., a defendant may at any time before trial or verdict, serve on plaintiff an offer in writing, to allow judgment to

be taken against him, for the sum or property, or to the effect, therein specified, with costs; and if plaintiff accept the offer, and gives notice, &c., such judgment is entered, which disposes of the cause.

3. But where plaintiff reserves the right to further litigate some part of the cause of action, a *judgment* is improper.

4. Under sec. 12, ch. 129, Tay. Stats. (p. 1466), the court may, in its discretion, make an *order* requiring defendant to satisfy that part of plaintiff's claim which his answer expressly, or by not denying, admits to be just; and may enforce such *order* as it enforces a judgment or provisional remedy—by execution, or, in a proper case, by attachment. But the provision does *not* contemplate the entry of a *judgment*.

5. Plaintiff, by his complaint, claimed judgment against defendant for over \$7,000. Defendant, by its answer, claimed offsets against a large part of the sum demanded, but offered and consented that judgment be taken against it for a certain balance, (about \$1,000 and costs). Plaintiff replied, admitting a part of the counter claims, and denying the remainder; and he refused to accept defendant's offer, and moved for judgment for the amount admitted by defendant to be due, without prejudice to his right to proceed for the remainder of the claim. Judgment was accordingly rendered in his favor for the amount so admitted, with costs. *Held*, that it must be reversed.

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The lumbermen of Northern Wisconsin have been made glad by a fall of only ten feet of snow. The loggers are paying good wages, and make the chips fly. They expect to get about 120,000,000 feet into the creeks on the Black river before spring.—*Sheboygan Herald*.



## MICHIGAN LUMBER.

### The Log Crop of the Saginaw Valley for 1875.

#### The Winter's Lumbering Operations Compared with Former Years.

#### Facts and Figures of Interest to the Lumber Trade.

EAST SAGINAW, Mich., Feb. 9.—The work of compiling the statistics of the lumber trade of the Saginaw valley and eastern Michigan for 1874 is now in progress. It will be several weeks before the aggregate results can be obtained, but much has been elicited in reference to lumbering operations the present winter that will be of especial value to the readers of The Times, and particularly that class

#### INTERESTED IN LUMBER.

This information has been obtained through personal visits to nearly every camp in this section of the state, and may be relied on as being as correct as such information can be. Last year was most depressing for the lumber trade. Prices were low, and in many instances the manufacture of lumber was carried on at a loss, and as the season closed it was a generally understood conclusion that lumbering operations the present winter should be curtailed, and every lumberman should exert his influence to this end. Winter opened with low wages, and a reduction in the price of camp supplies, and taking advantage of this, and the fact that each individual lumberman deemed that his neighbor would do but little in the way of lumbering, arranged for more extensive operations in the woods than he otherwise would have done. The result has been that fully as many, if not more, logs will be wintered the present season than last. The largest lumbering stream in this portion of the state is the Tittabawassee, which, with the Shiawassee and Cass, form the Saginaw river, the confluence being about two miles above this city. From estimates made by each camp, it appears that over 300,000,000 feet of new logs will be put in on this stream and its tributaries the present winter, which, although less than the amount put in last winter, is fully 100,000,000 feet more than was calculated would be cut on this stream. The quantity cut last year was so great that the Boom company although working their men and booms to their full capacity, were

obliged to leave about 100,000,000 feet of logs in their booms, some of which stock has been cut several years. Aside from this there are about 50,000,000 feet "hung up" above boom limit, which without there is a most unexpectedly large freshet, will continue to hang for some time. The stock of logs being cut this winter is of a much better quality than last year, when a good portion of the logs were taken from burnt districts in order to save the pine. On the Cass river operations are being curtailed. There are but few old logs back on this stream, the logs having been run out very clear last year. On the Rifle 85,000,000 will be lumbered against 58,000,000 feet run out last year. There are about 4,000,000 logs back in the boom and none "hung up" on this stream. There will be 35,000,000 feet wintered on the Au Gres against 38,000,000 run out last year. There are about 6,000,000 logs "hung up" on this stream, and 4,000,000 feet in the boom. Bad river and Beaver creek will bank about 25,000,000 while Swan creek and other small streams will furnish 10,000,000 more at the lowest estimate.

#### LOGS RAFTED OUT.

Prefacing tables showing the cut of new logs, we give the amount rafted out the several streams in this section of the state during the years named:

	1872.	1873.	1874.
Tittabawassee.....	310,216,000	269,508,740	342,435,800
Cass river.....	99,913,915	100,504,740	48,000,268
Bad river.....	18,284,621	37,137,384	55,000,000
Rifle river.....	61,000,000	80,872,384	58,687,084
Au Gres river.....	23,870,742	63,281,236	38,723,988
Kawkawlin.....	27,000,000	33,573,354	18,000,000
Au Sable.....	105,000,000	95,184,000	70,000,000
Totals.....	521,769,797	680,979,471	600,846,899

\* Estimated—no official reports.

This does not show the Thunder bay (Alpena) district, or Cheboygan, from which no comparative statement has been obtained.

#### NEW LOGS.

The following tables show only logs cut and banked during the winter of 1874-5. The actual scale will not show far from the figures given:

SAGINAW VALLEY PROPER.	Feet.
Tittabawassee (main stream).....	51,000,000
Chippewa proper.....	51,700,000
Pine river and tributaries.....	41,200,000
Pobacco.....	29,000,000
Cedar.....	14,200,000
Coldwater (branch Chippewa).....	4,500,000
Sturgeon creek.....	16,000,000
Tittabawassee Salt.....	24,000,000
Bluff creek.....	6,500,000
Bailey creek.....	1,500,000
Molasses creek.....	10,000,000

Little Tobacco.....	2,000,000
North Branch Chippewa.....	24,000,000
Little Salt Chippewa.....	6,000,000
On the railroad.....	24,000,000

Total Tittabawassee and tributaries.....	305,600,000
Cass river and tributaries.....	30,000,000
Bad river and Beaver creek.....	25,500,000
Kawkawin.....	15,000,000
Au Gres.....	35,000,000
Rifle river.....	85,000,000
Miscellaneous.....	10,000,000

Total Saginaw valley.....506,100,000

For the purpose of a classification of the district, the above is designated as the Saginaw valley proper, as a very large portion—the exception being a part of the product of the Rifle and Au Gres rivers—of the logs run out of the streams designated are manufactured into lumber in mills located on the Saginaw river. To the above, however, should be added 150,000,000 feet of last year's log crop back in the Tittabawassee, 50,000,000 of which are hung up and 100,000,000 within boom limits, being the excess of the quantity that could be handled by the Boom company during the season. There is also back of the old crop in Cass, Rifle, Au Gres, etc., about 25,000,000, and in the various mill booms ready for next season's operations about 60,000,000 feet, making a total of the old crop of 235,000,000, which added to the new logs would give a supply of 741,000,000 feet for the valley proper for the season of 1875. There are, however, "hung up" in the various streams more or less logs. The Tittabawassee, for instance, has held back for a series of years not less than 100,000,000 feet and as the swamps in the woods are reported very dry, there will be no less than that amount back at the close of the season of 1875. In fact it is doubted, should the season be propitious, whether the Boom company can handle over 350,000,000 loss. With the usual shortages on other streams, and allowing the average amount to be held over in mill booms, it is calculated that not to exceed 550,000,000 feet of logs can be counted on under the most favorable circumstances, even should the market be favorable and the mill-owners elect to run their mills to their full capacity.

#### RAILROAD MILLS.

Not included in the above is the lumbering incident to the interior mills located along the line of the Flint and Pere Marquette railway and the Jackson, Lansing and Saginaw railroad, which cut, in 1873, fifty-five millions and thirty million feet, respectively. The amount of logs is estimated as follows:

Mills on J. L. & S. R. R.....	80,000,000
Mills on F. and P. M. railway.....	49,500,000

Total railroad mills..... 129,500,000

This amount may be increased by lumbering carried on during the summer, in case the market should be favorable, which at this time does not seem likely.

#### "THE SHORE."

Under this head is embraced the territory lying along the eastern side of the state between the Saginaw river and the Straits of Mackinaw, and does not include those streams embraced under the head of Saginaw proper. The Rifle and Au Gres are properly Shore streams, and their log product is divided between Saginaw, Tawas and points on the lower lakes, where logs are towed in large rafts. The Au Sable Boom company last year (1874) handled 52,000,000 feet of logs, leaving 10,000,000 back in the boom, and nothing hung up above boom limits. The amount of logs left over from 1873 was 22,000,000, and the amount estimated wintered during 1874-75 is 60,000,000 feet, against 40,000,000 in 1873-4 and 120,000,000 the year previous.

Passing north, the most reliable estimates place the product of the various streams at about 147,500,000, a summary of the Shore product of new logs for 1875 showing something as follows:

Au Sable.....	60,000,000
Thunder Bay river.....	63,500,000
Cheboygan.....	48,000,000
Greenbush, Harrisville, Alcona, and Black river.....	26,000,000
Ouincke.....	4,000,000
Other small streams.....	6,000,000

Total new logs.....207,500,000

At the close of the season of 1873 there were 61,617,870 feet of logs held over for 1874, in the various mill booms and streams contiguous to mills. There was doubtless about the same quantity held over from 1874 to 1875, and the close of the present season will probably show a like quantity of unmanufactured logs on hand available for the following season.

#### GENERAL SUMMARY.

A summary of logs wintered during 1874-75 in the territory embraced in the Saginaw valley, proper, "the Shore" and interior mills, whose product is shipped via Saginaw, may be tabulated thus:

	Feet.
Saginaw valley proper.....	506,100,000
Railroad mills.....	129,500,000
"The Shore".....	207,500,000
Total.....	843,100,000

In 1873 these districts manufactured the following amounts, exclusive of lath and shingles:

Saginaw valley.....	619,867,021
"The Shore".....	113,490,265
J. I. & S. railroad mills.....	50,300,000
F. & P. M. railway mills.....	55,303,000
Total.....	938,960,286

The cut for 1874 has not yet been ascertained, the work of compiling the statistics now being in progress.

## GENERAL.

It will be observed that a large portion of eastern Michigan is not included in the above. Large quantities of logs are lumbered in Genesee, Lapeer, St. Clair, Huron, Sanilac, and Tuscola counties. From these districts no reliable returns have been received this winter. Headley & Richardson's statistics for 1873 show that these counties in that year manufactured 318,000,000 feet of lumber. The amount cut in 1874 will not exceed, if it equals, 250,000,000 feet, the bulk of which is in Genesee and St. Clair counties. The lumbering operations of the present winter will show a decrease from last year in these counties.

**THE LOGGING CAMPS OF ONE OF WISCONSIN'S GREAT PINERIES.**

**List of the Jobbers Now at Work—Their Estimated Aggregate Product One Hundred and Twenty Million Feet.**

We present a correct and full list of the logging camps now in operation on the Wolf, and its tributaries:

Bray & Choate, Oshkosh, sec. 11, town 31, range 14; 6,000,000 feet.

Thad & S. B. Lawrence, Oshkosh, sec. 1, town 31, range 14; 2,000,000 feet.

J. H. Parks, Shiocton, sec. 6-31-14 and 5; 2,000,000 feet.

Upham & Russell, Shawano, sec. 13-31-14; 1,500,000 feet.

Ira Griffin, Oshkosh, sec. 2-31-14; 1,000,000 feet.

Trask, McArthur & Co., Winneconne, sec. 15-31-14; 3,000,000 ft.

O. Beach, Oshkosh, sec. 16 and 17-31-14; 500,000 ft.

Chris. Hill, "Log Cabin," sec. 31-31-15; 800,000 ft.

Henry Sherry, Neenah, sec. 27-31-15; 3,000,000 ft.

Moore, Galloway & Baker, Fond du Lac, sec. 16-31-15; 2,000,000 ft.

S. A. Wellington, Winneconne, sec. 17-31-15; 1,500,000 ft.

J. H. Weed & Co., Oshkosh, sec. 15-33-13; 3,000,000 ft.

Jewell, Lawrence & Co., Oshkosh, sec. 34-33-13; 3,000,000 ft.

H. C. Scott, Oshkosh, sec. 10-33-13; 1,000,000 ft.

Paul Reynolds, Oshkosh, sec. 13-33-12; 2,000,000 ft.

James Morrison, Oshkosh, sec. 5-33-13; 2,000,000 ft.

Hiram Knuff, Omro, sec. 1-33-12; 1,000,000 ft.

Rich. Stillman & Co., Omro, sec. 3 and 10-34-11 and 12; 3,000,000 ft.

Trask, McArthur & Co., Winneconne, sec. 6-33-12, camp No. 2; 2,000,000 ft.

T. E. Crane, Oshkosh, sec. 21-34-13; 3,000,000 ft.

Total on Upper Wolf, 43,300,000 ft.

**CAMPS ON WEST BRANCH AND RED RIVER,**

**TRIBUTARIES OF WOLF RIVER.**

F. W. Dodge, Shawano, sec. 4 and 9-28-13; 2,000,000 ft.

F. W. Johns, Oconto, sec. 12-28-13; 1,200,000 ft.

Wm. Pendleton, Shawano, sec. 5-28-13; 1,500,000 ft.

J. Laabs & Co., Oshkosh, sec. 2-28-13; 2,000,000 ft.

Foster & Webster, Omro, sec. 26-28-13; 1,000,000 ft.

H. H. Martin, Shawano, sec. 6-28-13; 1,500,000 ft.

Asa Hicks, Shawano, sec. 6-28-13; 1,500,000 ft.

Albert Miller, Stockbridge Indian, for A. G. Rockwell, Oshkosh, sec. 12-28-14; 600,000 ft.

W. C. McKay, Shawano, for Dan'l Libbey, Oshkosh, sec. 1 and 2-28-14; 2 camps, 2,500,000 ft.

S. A. Wellington & Co., Wm. Crawford, foreman, Winneconne, sec. 9 and 10-28-14; 4,000,000 ft.

Hamilton & Finney, Fond du Lac, G. Smith, foreman, sec. 4-28-13; 1,500,000 ft.

Golden, Streeter & Co., Oshkosh, sec. 5-28-14; 1,300,000 ft.

Wheeler & Bros., Menasha, Red River, town 28, range 14; 1,000,000 ft.

Ben. Overton, Oshkosh, town 28, range 14; 1,000,000 ft.

J. B. Bridgeman, Indian Agent, 2 camps; 3,000,000 ft.

The same party has also two camps on the Oconto, all which are managed and manned by Menominee Indians. They expect to put in about three million on the Oconto.

Spencer, Wiley & Co., Shawano, on Red River, Probably 500,000 ft.

J. L. Whitehouse, Shawano, probably 500,000 ft.

#### CAMPS ON WHITE CLAY LAKE.

Jas. McNair, Oshkosh.

J. F. Gerard, Hathorn & Son, Geary & Murphey, Appleton.

The four camps will put in about 5,300,000 feet.

#### CAMPS ON SOUTH BRANCH.

C. McCurdy, Jr., Oshkosh, sec. 7-26-12; 1,000,000 feet.

J. McNeal, Embarrass, sec. 9-26-12; 1,000,000 feet.

Foster & Webster, Omro, sec. 3-26-12; 1,000,000 feet.

#### CAMPS ON SHIOC AND WOLF.

Kellogg & Rumery, Oshkosh, sec. 29-25-17; another camp on Wolf, sec. 11-25-16; 4,000,000 feet.

H. E. Howe, Shawano, Mill Creek, town 27, range 14; 1,000,000 ft.

Henry Sherrer, Neenah, sec. 15-25-17; 1,500,000 ft.

Moore, Gallaway & Baker, Fond du Lac, sec. 16-25-17; 3,000,000 ft.

J. Daniels, Neenah, sec. 17-25-17; 1,000,000 ft.

Doughty Bros., Oshkosh, sec. 22-25-17; 3,000,000 ft.

S. A. Wellington, Winneconne, sec. 1-25-16; 1,500,000 ft.

Potts & Finkle, Appleton, for P. Semple, sec. 23-25-16; 1,300,000 ft.

Milo Roblee, Shioe, sec. 26-25-16; 1,000,000 ft.

Moses Curtis, Shioe, for O. Beach, sec. 12-24-16; 2,000,000 ft.

#### CAMPS ON MAIN LOWER WOLF.

A. C. Sheldon, Navarino, Shawano Co., sec. 29-25-16; 500,000 ft.

Wm. Hollister, Navarino, Shawano Co., sec. 27-23-16; 400,000 ft.

A. J. Hoynes, Navarino, Shawano Co., for P. Semple, sec. 30-25-16; 800,000 ft.

Welcome Hyde, Appleton, sec. 25-25-15; 600,000 ft.

C. N. Paine, Oshkosh, sec. 27-25-15; 500,000 ft.

McMillan, Davis & Co., Oshkosh, sec. 26-25-15; 500,000 ft., part hardwood.

Brown & Sheldon, Embarras, sec. 22-25-15; 200,000 ft.

S. A. Wellington, Winneconne, sec. 3-25-16; 1,000,000 ft. Mostly boom timber.

J. Daniels, Neenah, sec. 2-23-16; 800,000 ft.

#### CAMPS ON HERMAN BROOK WHICH EMPTIES INTO SHIOC.

Wiley & Allender, Fond du Lac, sec. 18-25-18; 1,500,000 ft.

Albert & Co., Oshkosh, sec. 26-25-17; 500,000 ft.

Lynch & Riley, Fond du Lac, sec. 35-25-17; 1,500,000 ft.

Wheeler & Patton, on Black Creek, 500,000 ft.

Also several smaller jobbers whose camps we did not visit, both on Shioe and Black Creek, who altogether will bank perhaps 2,000,000 feet.

David Wetherby, Oshkosh, sec. 34-26-16; 800,000 feet.

Alf Hammond, Shawano, sec. 26-26-16; 500,000 feet.

P. & A. Semple, Shawano, sec. 19-26-16; 1,500,000 feet.

Gilbert Maine, Shioe, sec. 18-24-16; mostly hardwood for Webster & Lawson, Menasha, 800,000 feet.

Benjamin Sweet, Shioe, sec. 31-24-16; for Mason, Blood & Co., Appleton, 300,000 feet.

Edward Kendley, Shioe, sec. 18-23-16; 400,000 feet.

#### PIGEON RIVER, A TRIBUTARY TO THE WOLF.

A. L. Crane, Oshkosh; 2,500,000 feet.

Hutchinson & Co., Oshkosh, 2,000,000 ft.

Patton & Everetts, Neenah; 1,000,000 ft.

Hunter, Fond du Lac; 1,000,000 ft.

James Douglas, Neenah; 1,000,000 ft.

All operating in town 23, range 12 and 13.

Clintonville extract factory, Hemlock, 3,000,000.

Sundry parties, Rock Elm, 1,000,000 ft. Estimate of standing pine on the river. 10,000,000 ft.

It is stated on pretty good authority, that there was only about 400,000 feet of pine cut last year on this river, while some 10,000,000 of old logs were run out.

Besides these there are many small jobbers whose names, location and estimates we are unable to obtain. Making a total of 68,900,000 feet on the Lower Wolf river and its tributaries, and an aggregate of 120,000,000 ft. on the whole river. This estimate will probably fall short. The best informed men on the river, among whom is Mr. Choate, of the firm of Bray & Choate, Oshkosh, think the amount will be 121,000,000 feet. Of course there are many small jobbers whose camps we did not visit, nor learn the estimate of their operations.

## TRIP TO THE WOODS.

### Mayor Pulcifer's Expedition and Its Results.

Information Concerning Wisconsin's Lumber Regions—Its Vast Timber Tracts—Varieties of Its Forest Growths—Its Lumber Industries—Hon. M. P. Lindsley's Report.

Hon. M. P. Lindsley gives in the Green Bay Advocate the following valuable description of his observations as one of Mayor Pulcifer's party of explorers in the forests, and among the mills and lumber camps of northern Wisconsin:

Everybody knows D. H. Pulcifer, if they don't they ought to. For the present and ten years past he has "cast in his lot" with the husky boys of the pineries lying north of the young and enterprising city of Shawano, whose "great father" in Indian parlance he is, but more commonly and by statute called mayor. He is unlike the fellow who was jack of all trades, etc., for he is side editor, land agent, farmer, mayor, stock-grower, pine land operator and hotel keeper, and excels in each; but he is in his glory as conductor of excursionists among the grand old pines of the Wolf river. Conscious, no doubt, of his ability in this regard, and withal having an eye to business, perhaps induced him to invite some of his editorial brethren to a sleigh ride among the logging camps of the Upper Wolf and its tributaries as he passed, to say nothing of the "three sections to the mile military road."

Men are seldom magnanimous, except for a purpose, and so I suspected that Mayor Pulcifer had somewhere concealed in the depths of his thought, a purpose in giving the "poor editors" a sleigh ride, and that was to advertise his stock, for he took great pains to show up his "Berkshire pigs." No matter, the editors or subs, or reporters, or what you choose to call them, though not numerous, but very select, had a good time, and will be long in forgetting Mayor Pulcifer's hospitality and kindness on the round trip which ran substantially as follows: The mayor, the Oshkosh Northwestern man, Mr. Price, the Advocate man, and nine other good looking, healthy men of at least 175 pounds avordupois each, (not of the craft, though,) in John Hendricks'

parlor coach stages, left this ancient city at eight o'clock Tuesday morning, Jan. 25th, "bound up" as the sailor has it. The air was bracing, the sleighing good, and as we passed outside the city limits into the wilder scenes, I could quite pity the "poor brethren" we left behind prisoned in their dusky sanctuaries, with cob-webby and smoky walls, to feast their fancies on.

Duck Creek was radiant and smiling in her snowy garb, Mill Center never looked so charming, and seldom more lively with dozens of loaded lumber teams headed for Green Bay. The indefatigable and enterprising Sylvester Wight was not at home, but things looked active about his mill, and as though he meant to stay.—Perhaps another fire may dampen his spirits, especially if he has to wait six months for his insurance, as I am informed he has.

N. C. Foster, at Owego, has commenced clearing away the debris of his late mill, preparatory to rebuilding it again. He evidently means business by the stock of logs already banked and being hauled. Mr. Foster's foreman informed us that he expected to put in eight or nine million feet of logs this season.—Here is the county line between Brown and Shawano counties. The land is flat and rather low, but rich in agricultural resources, only give it proper drainage. The timber left is hemlock and hard wood. Less than two miles on the land is higher and better, being covered with maple, beach, elm and oak. Capt. Powell, our old friend, has sought the fresh air and healthful attractions of farm life, only about two miles from Owego, where he enjoys granger honors and duties alike gracefully, and with a hospitality not stinted, retired and happy. The Capt. never forgets his friends or the courtesies of a gentleman. The sad and sudden decease of his tried friend and companion, Col. Charles Tullar, was a shock to him which only time can take away. The Captain had driven out to Laney that morning, and we found him there at Rudd's Hotel, where we stopped for dinner. Twelve years ago, said the Captain, I drove thro' from Green Bay to Shawano in a cutter, and there was little more than an Indian trail and only one house from Mill Center to near Shawano, and I stopped at "Big Spring," the head of Pensaukee river and eat lunch and drove through. Now there is a good road, and half the way and more is opened into good farms, well fenced, with frame farm houses, many hotels, stores, sawmills, and quite village-looking settlements.

David McCartney, of Fort Howard, has a mill here which has several million feet of logs banked already, and more coming daily. He expects to get out about eight million feet. Here is Rudd's House, so well known for its good fare and obliging landlord, a store and some score or more dwellings, beside. The land about here is very good for farming and I noticed settlers' houses scattered around in the distance. The timber is maple, beach, birch, elm, and in places, hemlock, though that is chiefly in the pine belt.

From this place to Angelica, the country is rolling, and the timber generally hardwood, and the best kind of soil.—More farm houses appear as we pass up the road, indicating the rapid and healthful growth of the farming interest in this locality. At Angelica we found a new mill building, standing where the late one with a sudden and disastrous upheaval by the bursting of the boilers—was destroyed. Only a small addition to the mill remained to tell where the original mill stood. Even the foundations in some parts were blown away like dust in the wind, but the owners, J. P. Laird & Co., having the mill building up are putting in machinery and expect to run again by the first of March. They have five million feet of logs banked, and expect to put in three millions more. Our sandy-whiskered friend Robert McLaren looks happy, and gave us the freedom of his store and premises. He does not seem to grow old. Time and constant activity only brightens his mental vision and strengthens his powers of endurance. He has enough to do and will to do it, and as for "this world's goods" he has an abundance, if one can judge by appearances.

Upham & Russell's mill is about two miles north of here, seemingly in good shape and doing a good business. They have the capacity to cut 30 or 40 thousand feet per day. They expect to put in a stock of from six to eight million feet this year. They are successful men and prosecute their business with energy.—They employ about one hundred and twenty-five men. Their lumber and shingles they haul to Seymour, 12 miles and ship on the G. B. & M. R. R., chiefly direct to consumers.

From Angelica to Hartland, eight miles, there is a breadth of clearing of a mile wide, and on either side of the road are farm houses mostly frame buildings, and abundant evidence of thrift and prosperity. With rare exceptions the timber is hard wood, maple, oak, basswood.—Unimproved

lands here are worth from ten to twelve dollars an acre, and those generally lie back from a quarter to a mile from the road.

Hartland is the name of the town and post office. At the latter place, there is a store and some half dozen dwellings, clustered near by. Being ten miles from Shawano and eight from Angelica, there is no reason why it should not eventually grow into a thriving village, drawing its support from the rich farming district about. Mayor Puleifer said ten years ago there was not a dwelling house in all this region, where now are good farms, comfortable houses and many thousand industrious and thrifty people. The country toward Shawano continues good, and being generally well improved with substantial fences and farm buildings.

At a few minutes past 5 o'clock, our stage drove into the city of Shawano and hauled up to the Wescott House, where "mine host" the mayor, did the honors of entertaining us in a manner worthy of his high commission and of his hungry if not distinguished guests. This house is headquarters for the solid men of the pineries, as of other leading men of northern Wisconsin. Hon. A. L. Smith, of Appleton, we found rusticated here for a few days, chiefly devoting his time, as he said, to interviewing the tax collectors. J. S. Buck of the same place, who carries the pineries in his hat, was also stopping here. Mr. Bridgman the Indian agent and Mr. Whipple, of New York, secretary of the Christian commission, were also here. Mr. L. Choate, of Bray & Choate, Oshkosh, had put in here for the night, as he was en route for the upper Wolf, to look after the lumbering operations of his company. He is a representative man of his class. Practical, thorough, energetic, making no display, talking freely and fluently when applied to for information, concealing nothing, but making no show of his own extensive operations in the pineries, gentlemanly and courteous, without affectation, he wins on you the more you hear or see him. Full of valuable statistics and history of this northern heritage of timbered wealth, he talks freely concerning it. Other gentlemen there were of large experience among the pineries of the Wolf river, such as A. C. Sheldon, than whom perhaps none are more familiar with the character of the country, quality of the soil, extent of the settlements and logging operations generally. He is engaged at present on the

main Wolf in T. 25, R. 16. S. A. Wellington, of Winneconne, had put up here for the night, being on his way up the Wolf to his logging camps.—He is also a quiet mind-your-own business sort of a man—does not talk more than is necessary, yet we found him very free and intelligent on matters pertaining to his business and the pineries. He is quite a heavy operator. Mr. Jewell, of the firm of Jewell, Lawrence & Co., was temporarily stopping here looking after supplies, etc., for his camps up the river. Like many other gentlemen of the craft, who are largely interested in pine logs, he is somewhat reticent with strangers and does not tell all he knows at first meeting. He seems to be a very substantial man, mentally and financially, candid and correct in whatever he may say. Milo Roblee, of Ellington, is tall enough to walk free among the pine trees. His whiskers are black as any prince need covet. Long inured to camp life, he rejoices in the rough and tumble of logging operations. Not so old, about thirty-five, he looks anxiously to the splendid future of this Wolf river country, for in it he sees fortunes for the industrious and energetic. He has gathered up a competency already, and hopes for wealth and luxury in the near future.

Among the intelligent thinking teamsters who haul supplies up into these pineries, is W. Wardwell, of Winneconne. For many years he has been on this line, and in the supply business. A substantial farmer at home, he puts in his winters here very profitably for Messrs. Trask, McArthur & Co. A great reader, Mr. Wardwell catches at a newspaper as trout do for bait, and while his large brown horses are toiling slowly and surely up the Military road, he puts in his time, by spells, poring up the news of the day. Matt Carpenter's seven days wonder at the senatorial wheel, he was fully posted on, but does not sympathise with Matt in all his tribulations.—He prefers Gov. Washburn, who has less brilliancy, but more solidity of character. I mention Mr. Wardwell's love for reading to show what a man in the common walks of life may do, namely: he may discharge creditably all his duties to his employer and still become intelligent and thereby more useful. Beside these there were many men of all grades and callings nearly, stopping for the night.

On retiring, the mayor announced that 6 o'clock, sharp, was the starting time for the camps, and accordingly advised us

to sleep with one eye open.—Morning came, and so came the "rising rap" at our door. It seemed early, but no matter how early, the call was imperative, and we obeyed it.

Breakfast was smoking hot and savory as we descended to the dining room. Of course not being accustomed to eating two suppers in one night we did little more than sip our coffee and wonder how these "fellow laborers" could put away so much provision as they did at such an unreasonable hour.

Our wrappings on, we sat "spachless," chuck up to chin, like stocks of wood, nor could we turn our head to the right or left if we would. Not satisfied with all he brought away from home, our friend Price borrowed the mayor's great Icelandic coat and mittens, and put them on, topping him out to a peak, sure, and so burying his mortal part beneath its ample folds he would as soon have been taken for an Ice-lander as an editor. How Mayor Pulcifer's horses, the fast brown and sure bay, ever hauled our party and the immense bundles of clothing to the upper Wolf is a matter which passes comprehension, except the fact that they did.

The morning was fine for a start, but hazy with congealed fog vapor, and at the early hour of 6 A. M., was not very warm. Our team soon turned their heels on the smoking but generally slumbering city, trading the devious roadway with alacrity and skill, which if it did not overset the precious sleigh-load, it awakened them to a lively sense of such a catastrophe. The old payment ground, the "Cowan place," where once was the site of the present enterprising city of Shawano, and where Matt, Meade, Jack Cady, Josh. Whitney, Charley White, John B. Jacobs, and many more Green Bayites in days of yore used to visit annually about Indian payment time, and as we passed I could almost hear Matt's "Cowan," ring out on the air. But those days are only memories now, though the scenes they witnessed may form history for the future.

Keshena, eight miles north on Wolf river and on the Menominee Indian reservation, contains a store, wagon and blacksmith shops and perhaps a dozen dwellings pleasantly located among small hills. Here on a bluff, sloping sharply to the river are deposited the remains of Oshkosh, one of the bravest and most distinguished chiefs of the tribe. The burying ground for members of the Roman church, lies to the right of the road on an elevated plot

of ground, and unique for its varied taste of grave-yard fencing.

Here commences the "plains," or as the mayor more elegantly expressed it, the "poor Indians' hunting grounds"—where the mayor added, "no bird, deer, or living thing was ever known to exist." They comprise a belt of country ten miles or more north and south, reaching from the river as far east as the Oconto river, covered with sparsely set jack pines, poplar and blackberry brush.—One advantage which the mayor claimed for these "beautiful hunting grounds" was the long distance which game, (if there were any,) might be seen. The ride over these plains was very agreeable, just rolling enough for variety, and open as an improved country, where the air has free course.

Leaving the Indian hunting grounds, we enter the first instalment of pine and hemlock mixed with some hardwood.—This is in T. 30, R. 15, the upper tier of townships in the reservation. John Corn, a worthy Indian, keeps a tavern just in the edge of the timber. His house is like most houses of his class, not remarkable for its size and its conveniences or comfort, although many teamsters prefer stopping with corn to any place on the road. We picked up a bit of romance here touching early white life among this tribe of Indians.

Jeff. Davis, said to be the son of the veritable Jeff. Davis of confederate notoriety, resides here. This scion of noble stock is said to be a smart half-breed, doing no discredit to his famous progenitor. We were shown the place where Jeff's mother resided for many years. How much truth there is in this quaint tradition I cannot say. After watering our horses, and the mayor and Mr. Price had gone into the nursery and properly inspected a "three-pounder" in the shape of an Innian baby, we drove on.

We caught occasional glimpses of the coy Wolf as she hurried over some rapid and quickly hid herself beneath the thick ice-covering beneath the high bluffs, or overhanging branches of the adjacent forest. Amid such century-crowned seniors, such grand old pines, one feels a pride and a joy which well up in the heart from no kindred scenes or amidst no common friends. Clear of knots or shakes, these venerable children of the pine loom up 70, 80 and 100 feet before reaching a limb, and those cone-shaped and beautiful trees rear their heads 150 feet sometimes from their terrestrial sphere, making one's head dizzy in looking to their tops. Nothing but the

hills are so grand in all this stretch of pine land, and they are not, since these grew from chits—wee sprouts—to giant trees.

We passed the northern line of the reservation about 11 o'clock into T. 31, R. 15 the domain of lumbermen, getting our first view of a bank of logs on the river. Ben. Hill of "log cabin hotel" notoriety, (whose fantastic and romantic resort for weary and hungry travelers, we will soon describe) was the jobber. The sight was good for "blue," and kindred mental diseases. It savored strongly of greenbacks and financial relief. Poor editors could enjoy money prospects, even if they but dimly saw visions of it, dancing above their pockets. On, on, still on glided our sleigh and on, still on stretched away the panorama of pine tops and clean and stately pine trunks, until dizziness almost seized the mind with emotions of the lybarinthian wonder and primeval grandeur. Ho! for "the log cabin," falls from the lips of the anticipating mayor. A right pleasant sight and change in eye and thought in this wilderness so enchanting and wild. A halt and only a halt was called, for it was high noon and Johnny Parks' camp, seven miles away up the river was to be made for dinner. Those crisp trout, a hundred or more must not want for hungry patrons, and we were the patrons, and an inquiry or two by the mayor as to the "ins and outs" of the devious logging roads leading thereto, and our "fast brown and sure bay, horses gave their necks to the collar, scarcely touching the glossy snow path up Bloody Hill, which lies just beyond, at an angle of more than 45 degrees, called bloody as we were informed by reason of the number of accidents, broken legs, crushed ribs, etc., which annually occur to the passing host of teams upon it. The carcass of only one poor horse lay bleaching and crow-picked, on the summit. Enough, enough! said Price to warrant the name and the tradition then one has ascended its steep sides.

Johnny Parks! Johnny! yells our escort the mayor, as sharply we drove into his camp. Johnny was not long in answering the familiar call, and instead of a boy of sixteen, we stood before a man 5 feet 6, ruddy complexion, brown hair, Grecian nose, full habited and full of magnetism, a genuine old stager, tho' young in years, inured to camp life and every way a true representative of his class—not simply a machine to do his masters bidding, but a real live jobber and pin-land operator, good at



either. He can put in more logs in a season than almost any other man with the same force and length of haul, will crack as sharp a bargain in stumpage as any one or turn as neat a furrow on his large farm at Shioe, as the best of grangers. Not jack of all trades but master of many; yet unpretending as a boy of fifteen, and modest as a maid of twenty. He is frank and free to talk when talked to, even by august and pretentious editors, at least we found him such.

Out of reach of the law as it were, right and justice is still a law with their members, a law unto themselves, a code of honor better and higher than statutes prevails among them, so that they are not beset by the little sins of petit larceny, or other small crimes which infect more settled communities. Anything is safe there money or other valuables, even a pair of boot-pacs or a coat, a letter, or blanket or what not left by the side of the road, is perfectly safe. No one thinks of stealing it. But if he did, it would be woe to him, for hasty punishment on a pine limb or a duck in the icy waters or the Wolf would be his sure penalty, so that with all their wildness, they are law-abiding citizens and glory in it, and despite the scamp who dares disobey its high behests.

There are several camps near by this, among which we would especially notice Bray & Choate's, because located in the famous sec. 11, T. 31, R. 14, known as the 50,000 section, which said parties bought in '72 or '73, of Hon. P. Sawyer. There are two camps, one in the woods and one on the river at the landing. A brother of Mr. Choate has charge at the river and Mr. Gilkey, formerly of Oconto, at the camp in the woods, and of the logging operations generally. Both are gentle manly men and well fitted for their business. Mr. Gilkey has the reputation of being the best foreman on the river. Last year this concern put in 7,500,000 feet from sec. 11, and expect to put in 6,000,000 feet this season. The timber is as good as there is on the river, and has the advantage of down grade for hauling. The sec. is only half a mile from the river, consequently the haul is short and teams easily make six "turns" as loggers say, in a day. They use but five teams for hauling and these are expected to bank the six million feet. Johnny Parks hauls five miles and makes two and a half "turns" a day. Last year this company banked the stock of logs for about two dollars per M, but it will cost a trifle more this year.—

The history of logging operations on the upper Wolf dates with Beecher of Boston, four years ago this winter.—He struck the first blow here and though the river was then unimproved, by sheer good luck or providential floods, succeeded in getting down his entire stock of several million.—Since which time others have come in by the score, and new jobbers are found all the way from T. 30, the N. line of Menominee reservation—up as high as T. 35, near High Peter's, and nothing but the waters of Lake Superior will stop these progressive pine lovers from advancing into the Queen's dominions, in a few years more. Messrs. Beach & Crane of Oshkosh, are now operating in T. 35, R. 13, sec's 16-17, putting into Swamp Creek, not far from the somewhat renowned Norwegian Noch Feldt, who is in sec. 27-35-12, and east of Wolf river about 8 miles. Mr. Feldt is a genius in his way, having strayed from his native land and sought a home high above present civilization in the sandy bottoms of the Swamp Creek. He lives in princely style, and makes his time pass pleasantly in these northern wilds, fishing and hunting and trading with the Chipewa Indians. Once a year he condescends to go down to visit his more civilized brethren at Shawano, Oshkosh, and other points below, returning with a full stock of goods and trinkets, suitable for his savage patrons' taste and condition. He is evidently a man of some culture and quite wide reading, genial and intelligent, although reticent in presence of strangers. Founding a home literally in the wilds of America, he seems to look forward to the future with bright anticipations, gladly expecting the time when this vast wilderness of pine and farming land will be utilized for the purpose of trade and commerce. Sanguine of the superior advantages of this high region for agricultural purposes, he says it cannot be long in settling up, when once its great value is made known. Belts of pine and of hardwood intersperse the whole country, and even the pine lands are very good farm land, being quite largely mixed with maple and rock elm, and showing what can be done in this branch of industry. High Poler raised from a small patch of ground, several hundred bushels of potatoes, and Mr. Strauss, who keeps Uncle Sam's post office a few miles below Poler's, enjoyed equally good luck in his farming last year. Down at Langlade, near Bray & Choate's place, Mr. Farrell made \$1,000 last year off his potatoe, turnip and vegetable crop, all these products

commanding a high price up here. Johnny Parks said he paid \$28 for hay, \$1.25 per bushel for potatoes, 50 cents for turnips, and other things in proportion. So that no better, more remunerative place for farming can be found in the state than right here. Were I a granger, I would move there to-morrow and commence opening a farm preparatory to supplying these camps next winter with coarse grains and all kinds of vegetables. On many of these old camp grounds now abandoned, may be found comfortable buildings and quite a clearing ready to hand, which could be purchased at government price per acre, and improvements which cost from \$1,500 to \$2,000. These prices must continue for years, at least so long as the pine remains to be cut and hauled, and that, according to the opinion of the best lumbermen, will be fifteen or twenty-five years, time enough surely for an enterprising farmer to make his fortune. Of the demand for feed and hay, one may form an idea when he is informed that over 400 tons are annually consumed by the camps here—which altogether employ four or five hundred head of horses and cattle, and as many men nearly.

Langlade is the name of the post office at Bray & Choate's river camp, and C. H. Larzelere holds the responsible position of post-master, (I believe.) He is quaint, and full of knowledge of the country. Has travelled over much of this country between Shawano and the state line.—Was here when the military road was put through by "daylight" at three sec. to the mile—a bigger job in more senses than one, than has ever before or since fallen to the lot of any man on this river. It is so "big" that it won't bear inspection. Mr. Larzelere keeps hotel and attends generally to the wants of man and beast.—A right clever companionable fellow, having a wife who is the better-half indeed, "for she looketh well to the ways of her household." No gentleman ever goes from her door without feeling a sense of gratitude for her uniform courtesy and kindness, and for the neat and liberal manner in which her table is spread.

A few rods below is the rather stylish log hotel of Mr. Yates, who runs hotel and farm together. He owns some 640 acres and proposes to subdue and improve it as fast as his means will allow. He has about 20 acres under plow, and proposes cutting off 40 more this season. He has been there less than a year, but has made a good beginning and already laid the

foundation of his fortune. He trades some and generally takes in sail when the wind blows.—Sensible in coming to Green Bay to do his trading. He buys chiefly of Lenz & Brauns, one of our most reliable firms. He goes down himself once or twice a year, and does all his hauling with his own teams. It takes 5 days to make the trip. No doubt his example will be soon followed by many others. Thad. Lawrence dropped in on us while heading up to his camp. He is old business at logging. Seldom leaves camp from fall till spring, but if a man puts in more logs in a season than he does, that man is to be envied.

On our return trip, we paid our respects to the fashionable houses of the road—a sort of Palmer House to Chicago, as Mr. Price styled it. The "log cabin" has rather a romantic sign in this romantic retreat of the forest, located in T. 31, R. 15, just above the reservation. Johnny Parks and Thad. Lawrence met us there and we enjoyed a "square meal," not that we had not enjoyed the same in the camps above, but that this was peculiarly so for excellence of cooking, neatness and completeness of service, and particularly, as Johnny said, for the elegance and gentility of the young lady waiters, a gender not much found among camps and loggers, and all the more agreeable on this account. Here we met several gentlemen going up to their camps, and among them I particularly remember Mr. O. Beach, who with his horse and cutter, was moving leisurely up the river, accompanied by a load of supplies of fifty hundred, showing that the roads in this region are not bad, surely. This load had been hauled from Oshkosh and was going to camp at White Lake.

Logging roads are sort of broad-ways, and for smoothness and grade, they must be kept up for the economy and safety of sleds and teams. But such loads as loggers haul. Two and three thousand feet, log measure, is a common load, which must weigh from ten to twelve tons.

Being about to leave "log cabin," Mr. Rice, a very substantial and candid man, and member of the firm of Hill & Rice, who keep the house, came out and showed us through their buildings, which are altogether six, four along the road on the river side and two on the opposite side which are stables, storehouse, etc. These are respectively used for kitchen, dining room, reception room and sleeping apartments, the latter being 50 by 18, divided into four apartments; No. 1 reception,

Nos. 2, 3 and 4 sleeping, with four beds in each, covered with neat white spreads, good enough for a king to sleep in. Really I have seldom seen so comfortable and cosy a house as this out of the city, and where every want of travelers was anticipated and satisfied. Hill & Rice came here last winter, cleared the ground, built the buildings and set out the fancy sign and they have had no lack of custom since. I should judge they were now making a hundred dollars a day. Such is the reward of industry and energy.

Passing from here late in the p. m., we hauled up to Rev. J. Slingerland's, who is a Presbyterian minister over the Stock-bridges, whose present reservation is eighteen sections, south half of T. 28, R. 13. The tribe there number only about 124 persons. Mr. Slingerland is a very scholarly gentleman and has a heart of the truly good Samaritan kind. He has an excellent wife, a lady of superior qualities of mind and heart, taken from among his white brethren. They have lived here since 1857 or '58, and cared for the spiritual and temporal needs of this people; highly beloved, respected by all who know them. Their home is a little paradise, situated at the head of a beautiful sheet of water one mile by a quarter of a mile wide, overlooking it and the country adjacent. He apologized for his house, which was very neat and comfortable, by saying that he has not, until now, felt settled; now he is going to fit it up better to his mind and purpose for a life stay. We were particularly pleased, also entertained, by a dear old mother of the pastor's wife, Mrs. Seymour. She is one of the kind known as "Salt of the earth," all goodness and kindness and tenderness of heart, beside being intelligent and entertaining. She had some peculiar views of life and religion, and especially of Henry Ward Beecher. She did not seem to fancy Henry Ward's style of preaching, thinking it was lacking in orthodoxy. Had heard him many years ago but could never see much good by the going, and finally concluded by saying that she went to hear him no more and would not go across the road to hear him preach; although she does not think him guilty of the charges alleged against him.

We left early next morning, having enjoyed a treat of hospitality seldom found.

Dodge's camp on west branch was our next stopping place. He is banking logs for Mr. Beecher of Boston, has banked for him many years, was the first jobber for Beecher on the Upper Wolf, four years

ago. Has his wife with him in the camp and seems to enjoy life greatly. His wife dons the calico which she adorns by her grace of manner and intelligent conversation. She says she "gets lonesome a little," and no wonder, who wouldn't? hemmed in by a wall of pine forest where ladies seldom go.

Robert Crawford, foreman for Jones, Wellington & Co., is near Dodge's. He is tall enough to lead a logging brigade or any other and does not lack for energy nor industry. He is considered one of the best foremen on the west branch. Some twenty-five years, I think, he said he had been in the logging camps and thought he knew this country pretty well. He has 53 men, 12 horse teams and 6 ox teams in his camp.

Dinner was called at Dodge's and we had the pleasure of sitting down with 25 or 30 loggers, as good men at the table as we were—and it was a sight to witness the winrow of edibles piled upon that table, absolutely resembling a flat winrow in size. But as vapor before the sun, so vanished this row of most palatable provisions. Not many "nick-nacks" in camp, but solids of all kind; meats, salt and fresh, vegetables, choice and well served; bread and hot rolls, light and beautiful, tea and coffee, and all that any one requires is furnished without stint in a shape highly enjoyable.

After looking through the other camps here and surveying the bank of logs on the river, we turned our horses' heads towards Shawano at a quarter past 3 p. m., with 18 miles between, and a driving snow beating in our faces, and at quarter past four we entered the Wescott House with heartfelt thanks to the "fast brown and sure bay" who had speeded us on our journey.

Time forbids the mention of many places, camps and things which we visited, enjoyed and witnessed. Only an outline and not even that, have we been able to put into this hasty sketch. Persons and properties almost without number have from necessity been left out. But we are just as grateful, just as thankful for all their kindness and courtesy, and possibly at some future day we may have an opportunity to express our thanks personally to them. And to his Hon. the Mayor, D. H. Pulcifer, who through the getting up and the conducting of this excursion has shown such uniform kindness, thoughtfulness and courtesy, we, one and all, tender our sincere thanks.

Also to Mr. Shepard, of Seymour, for his attention and personal courtesy, from Shawano to Seymour, we would here express our sense of gratitude, trusting that, if we do not some other one may, reciprocate the favors.

Three cheers—hip, hip, hurrah! to the hardy boys of the pineries, who are making our houses and our hearts happy by their toil.

#### GERMANS AS CITIZENS.

The Germans are a thrifty race and their virtues shine in the general gloom of hard times. From many western towns where the proportion of German residents is considerable we have reports of progressing public improvements of a material and social character that are pleasant to contemplate. Nearly every town is getting its fine substantial hall, devoted to music, the drama, and athletic, literary and social purposes. Every town which has a large proportion of citizens of German birth is steadily prospering in spite of the general depression. Milwaukee is the soundest and most prosperous city in the west. We imagine that those grumblers who accuse the Germans of a lack of public spirit have never observed them very closely. They are a valuable sort of citizens to have.

#### Tough Season for Loggers.

The Menominee Herald says: Taking it all in all, the present winter has been the most unfortunate that the lumbermen of the Green Bay shore have experienced for many years. In the beginning of the season there was not snow enough, now there is too much; added to this the extreme cold weather has kept the snow so dry and hard that it has not packed at all, and teams are wearing out while they are doing much less than full duty. Last year the season was so favorable that our companies on the Menominee secured from 25 to 40 per cent more logs than they started for; this winter they are liable to fall short as much, and unless there should be an immediate, wonderful and permanent improvement in the weather, the cut will hardly reach 100,000,000 feet.

#### THE LOG PRODUCT OF MICHIGAN.

The common opinion has been that the logging operations of Michigan for the present winter were very extensive. Measured by the present and prospective needs of the trade, there can be little doubt that the supply will be excessive; but it may be a mistake to suppose that the cut of this winter will be greater than that of former years, or even as great. One important part in the calculation of the log supply of any season is the amount of the old stock left over in streams or upon banking grounds; and this point which happens to be doubtly important this season, appears to have been generally overlooked, or very imperfectly understood.

In the spring of 1874 there were in Tittabawassee river and its tributaries not less than 250,000,000 feet of old logs. There were at the same time in the Muskegon river something over 70,000,000. These are the principal log-bearing streams of the State, and the old stock in them last year, it will be seen, was about 320,000,000. It is not too high an estimate to put the old logs in the other lumber streams of the State at 250,000,000 feet. So we should have, as the total old logs in Michigan, in the spring of 1874, not less than 570,000,000 feet.

Now it is a well known fact that nearly all the Michigan streams were cleared of logs in 1874. The driving season was, on the whole, a singularly favorable one, and the common report from every district was that the streams were driven cleaner than than they had been for years. In the Tittawassee, we have an estimate—quite high enough, we judge—of 150,000,000 as the amount left over at all points. The other streams, whose logs come to the Saginaw river mills, were, with the exception of one small-producing river, almost absolutely stripped of logs. The streams on the west shore, it is well known,

were cleared of every log that could be got at, the mill men being incited to very extraordinary exertions by the supposed shortage in the Chicago market. We doubt if, even allowing the overestimate of 150,000,000 for the Tittabawassee, the old logs in the Michigan streams at this time can be figured up to more than 225,000,000. This would make a difference of 345,000,000 between the left-over stocks of 1873 and 1874.

It is plain enough, that to get the same amount of stock to the mills in 1875 as in 1874, the logging this winter must exceed that of last winter by 345,000,000 feet—that being the difference in stock on hand in two years. From the Tittabawassee, last year, there came to the mills 379,000,000 feet, and to get that amount it was necessary to add only 129,000,000 to the old stock on hand. But to get out of the river 379,000,000 in 1875, there must be added of new stock 229,000,000 to the logs in the stream now—or 100,000,000 feet more than last year. This would just about double the estimate of the logging of the winter of 1873-4. In the Muskegon river, this winter, there is reported but 6,000,000 feet of old logs, while the boom company delivered to mills last year 250,000,000. These two rivers, the largest log producers of the State, are, on the whole, fair specimens of the condition of things throughout the Michigan lumber districts. The old stock was practically used up in 1874, and lumbermen began the winter of 1874-5 with a comparatively clear field.

It is, we think, evident from the above calculations that the logging of the present winter in Michigan must exceed that of last winter by from 60 to 75 per cent. at least, in order to have a stock of logs at the mills equal to that of 1874. And we think it is equally evident to those who have carefully examined the subject, that this winter's logging will not exceed that of last season by the amount named. A great deal of

activity in the woods, this winter, has been that of the owners of railroad mills. These men have taken advantage of the lower rates of labor, stimulated by an expected reduction in the product of the river mills, and are quite generally stocking much heavier than last year. Another important consideration is the nature of the season. At least half the winter was gone before snow came so as to allow the banking of logs, except under great discouragements and at a very low rate. It is only within a week or two that the loud complaints of lack of snow have ceased. The number of men sent into the woods by the Saginaw Valley lumbermen, is estimated at considerably less than half the number that went out in 1872-3, though considerably more than the number sent in 1873-4. It cannot be expected that this diminished number of men will get out, in this remarkably unfavorable winter, anything like as much stock as the larger number of men did in a good season.

From all these calculations, we come to the conclusion that the log product of Michigan for 1875 will be reduced from that of 1874 by from 20 to 25 per cent. And in view of the present prospects of the market, we are sorry we cannot say that the reduction will be at least 50 per cent.

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#### **Reaching the St. Bernard in an Elevator.**

The railroad tunnel through the St. Bernard in Switzerland will, at its middle part, be enlarged, and a railroad station be established there at the foot of a perpendicular shaft, up which an elevator will carry the passengers to the top of the mountain, where a large hotel for the use of visitors is to be established over the shaft. One can arrive there then in a very short time without fatigue, and enjoy the splendid panorama, without having been subjected to the trouble and dangers of the tedious traveling along a difficult mountain road.

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In the waters of Green Bay there are 5,000 gill nets, giving employment to 300 men.

## FOND DU LAC.

### Wisconsin's Great Manufacturing City.

#### Its Lumber Industries.

Threshing Machines, Wagons,  
Iron Manufactures, and  
Paper Mills.

Leading Commercial Institutions of the  
"Second City."

[From The Commercial Times.]

FOND DU LAC, Feb. 20. —You who sit chained to writing-desks and venture not into these icy regions have only half an idea of the trials and tribulations of the reporter. To be "snowed in" at about fifteen miles from one's destination, with the mercury at 35° below, is, to say the least, uncommonly hard, but to be subject to such uncomfortable occurrences every time one ventures upon the railroad is enough to discourage even a well-regulated reporter. There is something really unpleasant about the appearance of the brakeman as he enters the car clad in icy raiment and informs the passengers that the locomotive is no longer able to keep pace with the rapid drifting of the snow. It chills the blood of the reporter when this unwelcome bit of information is echoed through the car to hear his fellow-passengers enter into active competition to ascertain who can take the Lord's name in vain with the greatest number of variations, yet his first impulse is to enter himself into the spirited contest. There is nothing especially enjoyable in the search for a farm house or some other habitation in which to rest one's weary and half frozen bones until the storm shall have removed the obstructing element from the track. In fact it is decidedly disagreeable to wander about through the drifting

snow until, almost exhausted, you spy a cottage, walk up to it, gently tap on the door and while visions of snowy sheets and lots of warm bed-clothes flit through your mind the master of the domicile appears with a candle, a seven-shooter and a bulldog. He is just about to annihilate you as a burglar when you finally convince him of your misfortune, and he takes you under his hospitable roof. There you prepare to rest with the balance of your fellow travelers in the best quarters your host can arrange, and after perfecting preliminaries you drop off into dreamland, and nothing but the whistling of the wind in the chimney and the contented snoring of the sleepers breaks the stillness of the night. The reporter has been there and knows how it is himself. He experienced all these things in endeavoring to reach this proud and prosperous city,

FOND DU LAC.

You who linger on the musty threshold of the sanctum rather than acquaint yourselves with the cities and people of your own state, cannot form an accurate idea of the wonderful progression of this great manufacturing city. Its growth has not been rapid, but steady, permanent and substantial. It derived its name from a French trader named Franks as far back as 1820 and is therefore one of our oldest Wisconsin cities. It must have been evident to the early settlers that Fond du Lac would have a great future, for it possesses a well chosen location for manufactures. The wonderful advancement and prosperity of the city is greatly attributable to the energy, perseverance and enterprise of some of its prominent citizens, who have very wisely used their influence and their capital to promote the manufacturing and commercial interests. For many years the principal manufacture of Fond du Lac was lumber, and this single industry gained for the town quite a reputation and is now a leading feature among the enterprises that occupy the attention of the people. With commendable

foresight the manufacturers saw that at the rate the logs have for a long time been cut, a few years would exhaust all the timber in the pineries tributary to the Wolf and Fox rivers. They saw that the lumber interest had attained its maximum, and they set to work inviting other branches of industry. The result is a grand one. Their institutions now cover almost the whole category of manufactures, and are unrivaled in proportional extent by those of any western metropolis.

The reporter in his search for information first visited the mammoth establishment of

MR. CHARLES J. S. MEYER,

and during a pleasant conversation with the affluent proprietor's genial son, Mr. Julius Meyer, he was made familiar with the principal points of interest regarding the works. Mr. Meyer is the most extensive maker of sash, doors and blinds in the United States. He makes 10,000 windows, 6,000 doors and 2,000 pairs blinds per week, besides mouldings and miscellaneous work in great quantities. During the active part of the year he employs 1000 men (300 of them in Chicago.) He has three lumber yards and a saw mill in Fond du Lac, four lumber yards on the air line and one in Chicago. The saw-mill has a capacity for cutting fourteen million feet of lumber per year. In Chicago, on South Water street, he has a five-story brick building warehouse which serves as a depot for the distribution of goods over the country. Mr. Meyer has labored faithfully and perseveringly until he now does a business of over a million of dollars yearly, and that steadily increases. His establishment is complete and comprehensive and fully tests the executive ability of its owner. Mr. Meyer's value to Fond du Lac can scarcely be over estimated. Many thousands of people are dependent upon his enterprise for support and in many other respects he is one of the cities greatest benefactors.

MIHILLS MANUFACTURING COMPANY.

In the regular routine of business the reporter next visited the large brick works of this new and solid corporation. He found the

secretary, Mr. F. W. Hart, busily engaged with a batch of correspondence, or something of the sort, and modestly making his desires known, he placed himself in readiness to take notes. Mr. Hart very kindly furnished the reporter with information substantially as follows. This company was organized under the laws of the state on the fourth day of November last with a capital stock of \$200,000, all paid in. The works cover 200x300 feet of ground and are two stories high. They have a capacity for making 1,800 doors, 900 pairs blinds, 3,000 lights of sash per week. They have two saw mills and one shingle mill, capable of turning out 90,000 feet of lumber per day and 120,000 shingles. In Chicago at 54 and 56 Franklin street they have a five-story brick warehouse for the distribution of goods to all parts of the continent. To operate all these various works the company now employ about 160 men, ten or twelve of them at Chicago. The stock is mainly held by parties in Fond du Lac, and the officers are men of energy, perseverance and responsibility. President, P. Semple; vice president, R. A. Baker; treasurer, C. K. Pier; secretary, F. W. Hart; general superintendent, G. N. Mihills. With the abundance of capital, the ample facilities and the sound management which this company has, there is reason to believe that it will be a very profitable enterprise. They calculate to increase their capacity twenty-five per cent. in the next month, and they will thus be better able to meet the great demand for their manufactures. During the past week they have shipped large amounts of goods into Missouri, Indiana, Arkansas, Georgia, and there is a demand from almost every part of the country. Leaving the Mihills works, the reporter sought an interview with Mr. B. F. Moore, proprietor of the

LA BELLE WAGON WORKS.

Here about 160 men are employed in the manufacture of some of the very best wagons made in the country. The "La Belle" wagon has long born an enviable reputation, and is fast becoming more popular in every part of the country. They are made of the very best material and in the most perfect style of workmanship.

Under the companionable escort of the superintendent of the works, Mr. William Farnsworth, the reporter visited the various departments of the establishment. The machinery used in the manufacture of the "La Belle" wagon is of the most improved patterns. The works cover quite an area of ground and are not exceeded in extent by many in the United States. Mr. Moore is one of the most prominent, influential and wealthy citizens of the city, and his business tact and cautious judgment are bound to make his establishment one of the largest of its kind anywhere. The "La Belle" must be a popular wagon. It is so simple and durable in construction. It is made of such superior material. The iron work is done with such great skill and care that there can be no better vehicle for general purposes of heavy drafting made. This is one of the institutions of which Fond du Lac is justly proud.

FOND DU LAC THRESHING MACHINE COMPANY.

In March last the above company was organized with Hon. Alex. McDonald, president; T. F. Strong, vice-president; George P. See, secretary and treasurer; P. E. Merrihen, mechanical superintendent. They purchased an institution at Racine Junction owned by Mr. Merrihen individually and moved the works to Fond du Lac. It is stated that about two and a half years ago Mr. Merrihen went to Racine and commenced operations with the avowed intention of beating Mr. J. I. Case. Mr. M. went at it in this wise: For many years what is known as the "Apron" threshing machine was the only one made and even now it is being produced by some fifty manufacturers. About ten years ago the first step was taken in the development of the manufacture to discard the "Apron." Two machines were brought out, the "Vibrator" and the "Geiser" and they both made war on the "Apron." Seven years ago Mr. Case bought an existing patent and brought out the "Eclipse." Mr. Merrihen knew the progress of the art and went to work to build a better machine and he therefore started the "Improved Eclipse" where Mr. Case left off, adding many of his own improvements. This "Improved Eclipse" is

now being made by the Fond du Lac Threshing Machine Company. They also are the makers of the "Pride of the West," which has radical and positive changes over other machines. Practical men do not hesitate in calling these two machines the very best in existence. Every one is aware that all threshing machines are alike, except in the degree of work which they do. The principal designs are, 1, to get rid of the straw without carrying grain in it. 2: to thoroughly separate the grain from the chaff, so as to fit it for the market, and not waste it over the sieve. It will be observed that the machines of this company are better calculated to effect these ends than any other. The "Improved Eclipse" is supplied with a wooden cylinder (an entirely new feature) 18 inches in diameter, armed with wooden teeth, which revolve in the same direction as the cylinder, and assists and relieves it. It has what is called a detainer, a close wooden cover the entire width of the machine, the duty of which is to detain the straw upon the straw-carrying raddles, clearing the teeth of both the wooden cylinder and the spiral beater, and thus entirely preventing winding by either of them. The spiral beater is located about centrally in the machine. Its office is to prevent the packing of straw on the middle, to keep it thoroughly lightened up so as to allow the escape of all threshed grain through it. It has a double raddle, the second being ten inches below and in the rear of the first, and thus the straw, after leaving the spiral beater, is precipitated ten inches on the second raddle, and then by that passes to the stacker. It has a chain elevator made of endless steel wire, doing away with the traditional straps, cups, blocks, etc. The delivery by this elevator is continuous, it never sticks or clogs, does not get out of order, and is permanent in its character. These are the most noticeable improvements in the machine, though there are many others. The "Pride of the West" the company consider the best of the two and have no hesitancy in styling it "the best separator in the world." They use the Woodbury "Reliance" and Starke horse-powers, mounted on four wheels, and consider them the best in America. The company



is supplied with good works and are now running with seventy men and unable to supply the demand for their separators. They will increase their capacity as the demand requires it.

W. H. HINER & CO.

Messrs. W. H. Hiner and Alexander H. White are the proprietors of the Union Iron works, one of the most extensive machine establishments in the west. Their buildings are built of stone and brick, and occupy nearly a square block. They employ one hundred men. They have the requisite tools for the construction of any kind of machinery. Mr. Hiner is at present the efficient state senator from this district, and is admired as a citizen, a manufacturer. Captain White is a gentleman of fine business attainments, and ably conducts the business.

#### FOND DU LAC MANUFACTURING COMPANY.

This company operate the Fountain City paper mill. They sprung into existence about two years ago, and have one of the best equipped and most complete mills in the country. It is a worthy institution, and one which will grow to great magnitude as its manufacture become known,

They are many other manufactures and also a great number of lumber mills which the reporter will have to skip in this letter, and visit them during the season of their active operation.

### PINE LOGS IN MICHIGAN.

#### The Winter Crop for 1875 in the Saginaw, Shore and other Districts.

[From The Saginaw Courier, Feb. 10.]

#### TITTABAWASSEE AND TRIBUTARIES.

	Feet.
Tittabawassee, main & east branch	51,000,000
Chippewa, proper	51,700,000
Pine river and tributaries	41,200,000
Tobacco	29,000,000
Cedar	14,200,000
Coldwater branch of Chippewa	4,500,000
Sturgeon Creek	16,000,000
Tittabawassee Salt	24,000,000
Bluff Creek	6,500,000
Bailey Creek	1,500,000
Molasses Creek	10,000,000
Little Tobacco	2,000,000
North Branch Chippewa	24,000,000
Little Salt Chippewa	6,000,000
Railroad	24,000,000

Total Tittabawassee & trib's. 305,600,000

#### OTHER STREAMS IN SAGINAW DISTRICT.

Cass river and tributaries	30,000,000
Bad river and Beaver Creek	35,500,000
Kawkawlin	15,000,000
Mills on the J. L. & S. Road	80,000,000
Mills on the F. & P. M., near Farwell	49,500,000
Total	219,000,000

#### SHORE DISTRICTS.

Rifle river	85,000,000
Au Gres	35,000,000
Alabaster	2,500,000
Au Sable	60,000,000
Harrisville, Alcona and Black river	26,000,000
Ossineke	4,000,000
Alpena	63,500,000
Cheboygan	48,000,000
Total	324,000,000

#### OTHER STREAMS.

Pere Marquette river	87,000,000
Grand Flat and Rogue	107,000,000
White river and tributaries	85,000,000
Black Lake	20,000,000
Muskegon and tributaries	400,000,000
Total	699,000,000

On the Tittabawassee there is held within the boom limits 100,000,000, while 50,000,000 are hung up on the stream. The new logs put in this winter are better quality than the cut for two years previous. On this stream there will be in all probability from fifty to one hundred million feet hung up the coming season. The amount of timber and logs handled by the boom company in Au Sable river during 1874 was 52,000,000 feet. The amount of old logs now in boom is 10,000,000 feet. There is nothing hung up above the boom limits. The amount of logs in feet left over from '73 to '74 was 22,000,000 feet. The amount to be put in this winter is 60,000,000 against 40,000,000 in 1874, and 120,000,000 the year previous.

On the Rifle river there is held within the boom limits about 3,500,000 feet of old logs, and none hung up.

We hear that the Lake Shore Railway company paid as high as \$1.25 an hour to men for shoveling snow yesterday, and some of the men froze their feet, hands, ears and cheeks. A man can afford to freeze, however, these hard times, for \$12.50 a day! — *Sheboygan Times*.

LUMBER MARKET.

Milwaukee, Wisconsin.

MILWAUKEE, Feb. 15, 1875.

Common boards.....	12	60@	
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@	
3d 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	70@	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.

YARD PRICES.

First clear.....	\$53	00@	55 00
Second clear.....	48	00@	50 00
Third clear, 1 in.....	37	00@	40 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.....	12	00@	13 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@	25 00
do do 6 inch.....	30	00@	
do do 7 inch.....	30	00@	
do do 8 inch.....	35	00@	
Lath.....	2	00@	2 25
Shingles—Sawed No. 1.....	1	50@	2 00
do do "A".....	3	00@	3 25

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

WHITE WOOD.

Box boards.....	40	Clear.....	45@	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	
Bolsters.....	45	Flooring, 6-in dr'd and matched.....	40	
BLACK WALNUT.				
Culls.....	25@	35	Flooring, 3 and 4 inch dr'd and matched.....	50
Common.....	50	75	matched.....	50
First and 2ds.....	61	88		
Clear.....	75			
CHEERRY.				
Counter tops, (se- lected).....	100	150	Culls.....	20
100	150	Common.....	40	
Flooring, 6-in dr'd and matched.....	80	Clear.....	50	
Flooring, 3 and 4 inch dr'd and matched.....	45		65	
MAPLE.		HICKORY.		
Plank.....	30	40	Plank (selected).....	50
Flooring, 8-in dr'd and matched.....	40	Butternut.....	25	
Flooring, 3 and 4 inch dr'd and matched.....	45			

Oswego, New York.

From the Oswego Weekly Palladium.

MICHIGAN PINE.

Three uppers.....	\$43	@	45
Rox.....	16	@	18
Clapboard strips, 1st quality.....	48	@	52
do do 2d.....	18	@	22

CANADA PINE.

Three uppers.....	\$40	@	42
Pickings.....	28	@	32
Common.....	18	@	20
24 30			
Inch siding, mill run selected.....	32	@	38
do do box.....	12	@	15
1 1/2 inch siding, mill run.....	24	@	30
1 1/2 " " selected.....	35	@	38
1 1/2 " " box.....	15	@	17
1 1/2 " " mill run.....	28	@	32
1 1/2 " " selected.....	37	@	40
1 1/2 " " box.....	14	@	15
2 " " mill run.....	28	@	30
2 " " selected.....	37	@	40
2 " " box.....	14	@	16
1x10 stocks, 13 ft, cull'd.....	20	@	26
1x10 stocks, 13 ft, culls.....	14	@	16
1x10 stocks, 16 ft, cull'd.....	23	@	26
1x10 stocks, 16 ft, culls.....	21	@	28
1x12 stocks, 13 ft, cull'd.....	14	@	16
1x12 stocks, 13 ft, culls.....	24	@	30
1x12 stocks, 16 ft, cull'd.....	13	@	15
1x12 stocks, 16 ft, culls.....	15	@	17
1x14 stocks, cull'd.....	23	@	28
1x16 stocks, cull'd.....	23	@	28
1 1/2 x10 plank, cull'd.....	22	@	27
1 1/2 x10 plank, culls.....	13	@	15
Inch strips, cull'd.....	22	@	30
1 1/2 inch strips, cull'd.....	22	@	30
1x1 1/2 inch strips, culls.....	10	@	12
Ash, Canada finishing, 1st quality.....	25	@	35
do do common.....	18	@	20
Black ash.....	18	@	20
Black walnut.....	85	@	105
Hemlock.....	12	@	10
Shingles, pine, 1st quality, 18 inch.....	4	@	25
do do 1st 16 inch.....	3	@	85
do do 2d 16 inch.....	3	@	09
do do 2d 18 inch.....	3	@	25
do do cedar 1st 18 inch.....	4	@	30
do do 2d 18 inch.....	2	@	25
Hemlock, 1st 18 inch.....	2	@	50
Spruce, 1st 18 inch.....	3	@	24
Mich. pine shingles, best quality 18 inch.....	4	@	50
Pickets, pine, 1st quality, flat.....	14	@	15
do do 2d.....	10	@	11
do do 1st square.....	12	@	18
Lath.....	1	@	80

## St. Louis, Mo.

## WHITE PINE.

4 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
1 " select (Star)	.....	40	00@45 00
A clear stock boards, 12 inch	.....	40	.....
B " " " "	.....	27	50@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 60
2d " " " "	.....	16	00@
Select fencing	.....	12	50@
3/8 inch common ceiling dressed, count double bead	.....	25	00@
3/8 inch 1st common ceiling dressed count double bead	.....	30	00@
3/8 inch 1st common ceiling dressed, count, double bead	.....	35	00@
Common boards, 12, 14, 16 and 18 ft.	.....	14	00@18 00
" " " " " " " " " " " "	.....	15	00@20 00
Cull boards (sheathing)	.....	11	00@15 00
Grub plank, 14, 16, 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 " " " " " " " " " " " "	.....	14	00@18 00
6 " " " " " " " " " " " "	.....	14	00@
Narrow " " " " " " " " " " " "	.....	14	00@
Cull " " " " " " " " " " " "	.....	11	00@
Joists 12, 14 and 16 ft	.....	14	00@18 00
" " " " " " " " " " " "	.....	16	00@20 00
" " " " " " " " " " " "	.....	19	00@24 00
x4 scantling, 12 ft	.....	14	00@18 00
" " " " " " " " " " " "	.....	14	00@17 00
" " " " " " " " " " " "	.....	14	00@
" " " " " " " " " " " "	.....	16	00@
Yard timber 12 to 16 ft, 4x6 to 8x8	.....	14	00@
" " " " " " " " " " " "	.....	16	00@
Flat pickets, rough	.....	17	50@
Flat clear pickets, dressed and headed	.....	35	00@
No. 9	.....	15	00@
1 1/2 inch square pickets, rough	.....	35	00@
" " " " " " " " " " " "	.....	11	00@
O. G. clear battens, 2 1/2 inch wide	.....	9	50@
" " " " " " " " " " " "	.....	9	00@
O. G. 2d quality battens 2 1/2 in wide	.....	9	00@

## YELLOW PINE.

1st and 2d clear flooring 5 in (count)	.....	35	00@37 50
1st and 2d clear flooring mixed widths, (tape)	.....	37	50@
1st and 2d clear flooring, narrow, one width (tape)	.....	38	00@40 00
Com flooring, mixed widths (tape)	.....	25	00@
" " " " " " " " " " " "	.....	27	00@
1st and 2 clear boards 19 in and over	.....	49	00@
" " " " " " " " " " " "	.....	45	00@
1 1/2 in 1st and clear flooring (tape)	.....	37	50@
1 1/2 inch common flooring (tape)	.....	27	00@
Common boards, rough	.....	17	50@
Common fencing	.....	17	50@

## POPLAR.

1st and 2d clear siding (not dry)	.....	18	00@
6-16 in ceiling (count) dressed, plain	.....	20	00@
1st and 2d clear 1 in	.....	40	00@
" " " " " " " " " " " "	.....	40	00@
Common flooring dressed, (count)	.....	27	50@
Fencing	.....	15	00@

## SHINGLES AND LATH.

A sawed shingles	.....	4 00@	4 75
Star No. 1 (clear wrapper)	.....	3 00@	.....
Star No. 1	.....	2 50@	.....
City lath	.....	3 25@	3 50

## HARD WOOD—DRY—Levee Rates.

Walnut, choice	.....	\$4 45	00@50 00
Walnut, common	.....	39	00@40 00
Walnut, inferior	.....	20	00@30 00
Ash	.....	25	00@30 00
Oak	.....	16	00@28 00
Hickory	.....	20	00@35 00
Poplar 2d clear	.....	21	50@22 50
Poplar 3d rate	.....	13	00@14 00
Cedar, sawed	.....	32	50@35 00
Cedar, hem	.....	26	00@28 00
Cedar posts	.....	30	@

Yard rates are for dry, and are from \$7 to \$10 higher. Charges for dressing rough lumber—one side \$2; two sides \$3.

## Albany, New York.

The present current quotations of the yards are:

Pine, clear P m	.....	\$51	60@53 00
Pine, fourths P m	.....	46	00@48 00
Pine, selects P m	.....	41	00@43 00
Pine, good box P m	.....	23	00@25 00
Pine, common P m	.....	14	00@18 00
Pine, clap board strips	.....	45	00@46 00
Pine, 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, P m	.....	25	00@27 00
Pine, 12 inch boards, 16 ft, P m	.....	25	00@29 00
Pine, 12 inch boards, 13 ft, P m	.....	25	00@28 00
Pine 1 1/2 inch siding, select, P m	.....	38	00@42 00
Pine, 1 1/2 inch siding, common, P m	.....	16	00@18 00
Pine, 1 inch siding, selected, P m	.....	36	00@40 00
Pine, 1 inch siding, common, P m	.....	14	00@17 00
Spruce boards, each	.....	14	@ 15
Spruce plank, 1 1/2 inch, each	.....	16	@ 17
Hemlock plank, 2 inch, each	.....	14	@ 30
Black Walnut, good, P m	.....	75	00@85 00
Black Walnut 3/4 inch, P m	.....	75	00@78 00
Black Walnut, 1/2 inch, P m	.....	75	00@80 00
Sycamore, 1 inch P m	.....	.....	@35 00
Sycamore, 3/4 inch P m	.....	.....	@32 00
White wood, chair plank, P m	.....	65	00@68 00
White wood, 1 inch, and thick, P m	.....	38	00@45 00
White wood, 3/4 inch, P m	.....	35	00@40 00
Ash, good, P m	.....	38	00@43 00
Ash, second quality, P m	.....	25	00@30 00
Oak, good, P m	.....	38	00@45 00
Oak, second quality, P m	.....	25	00@30 00
Cherry, good, P m	.....	.....	@37 00
Cherry, common, P m	.....	.....	@30 00
Birch, P m	.....	.....	@25 00
Beech, P m	.....	29	00@25 00
Basswood, P m	.....	.....	@25 00
Hickory, P m	.....	40	00@45 00
Maple, P m	.....	22	00@30 00
Chestnut, P m	.....	40	00@45 00
Shingles, shaved pine, P m	.....	6 50@	7 00
Shingles, do, 2d quality, P m	.....	5 00@	5 50
Shingles, extra sawed pine, P m	.....	5 00@	5 25
Shingles, clear sawed pine, P m	.....	3 50@	4 00
Shingles, sawed 3d quality, P m	.....	2 50@	2 75
Shingles, cedar, P m	.....	3 00@	3 00
Shingles, hemlock, P m	.....	.....	@ 3 00
Lath, hemlock, P m	.....	.....	@ 1 75
Lath, spruce, P m	.....	.....	@ 2 00
Lath, pine, P m	.....	.....	@ 2 25

A SPECIALTY OF SAW MILL MACHINERY

# CLINTON IRON WORKS,

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## CIRCULAR SAW MILL

With Head Blocks having Steel Rack and Pinions and Double Ratchet Wheels,  
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With STEEL SASH and POWER BINDERS.

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LUMBERING ESTABLISHMENT

*KNOWN AS CLARKE'S MILL.*

The Mill Property is situated at Wausau and is new, and has a capacity of manufacturing Eight Million feet of Lumber, Four Million feet of Shingles and Four Million feet of Lath during the Summer Sawing Season, and can be increased to double that amount.

In connection with the same there is all

NECESSARY BUILDINGS,

SUCH AS

Dwellings, Shops, Barns, Offices, Etc., Etc., Complete.

Also about

*8,000 Acres of the Best Pine Land,*

On the Wisconsin River, all lying within two miles of driving water, estimated at Forty-Five Million.

In connection with this mill, there is owned, one-third interest in the Wausau Boom, which is capable of holding Forty Million. The mill is on a first-class, never failing water-power, running under twelve-foot head.

Any person desiring to invest in a first-class lumbering establishment on the Wisconsin River, are now offered a good opportunity in a well established business. For further particulars enquire of

*JOHN C. CLARKE,*

Wausau, Wis

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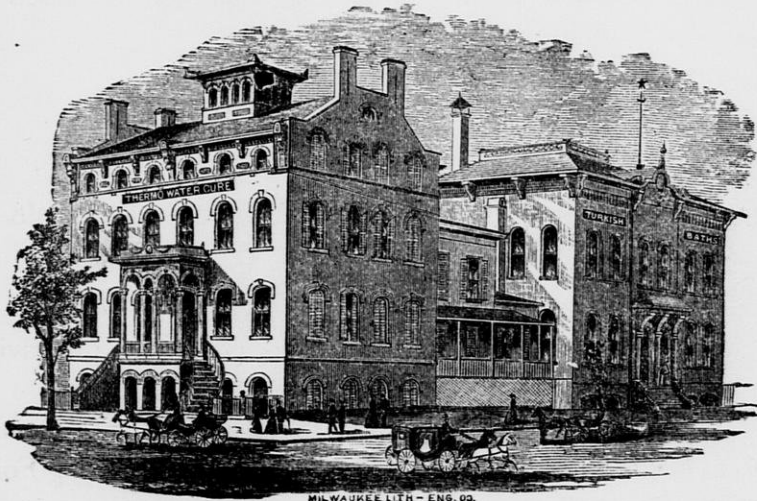
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**1st.** In the statement of the lumber cut for the season of 1874 is comprised in detail a list of every saw mill at every manufacturing point and river in Michigan, Wisconsin and Minnesota, including also the Susquehanna river in Pennsylvania, the 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 river 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 know 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.

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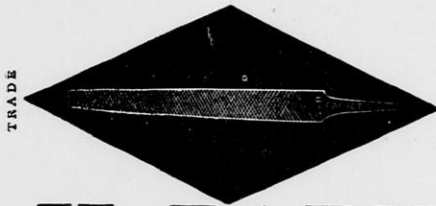
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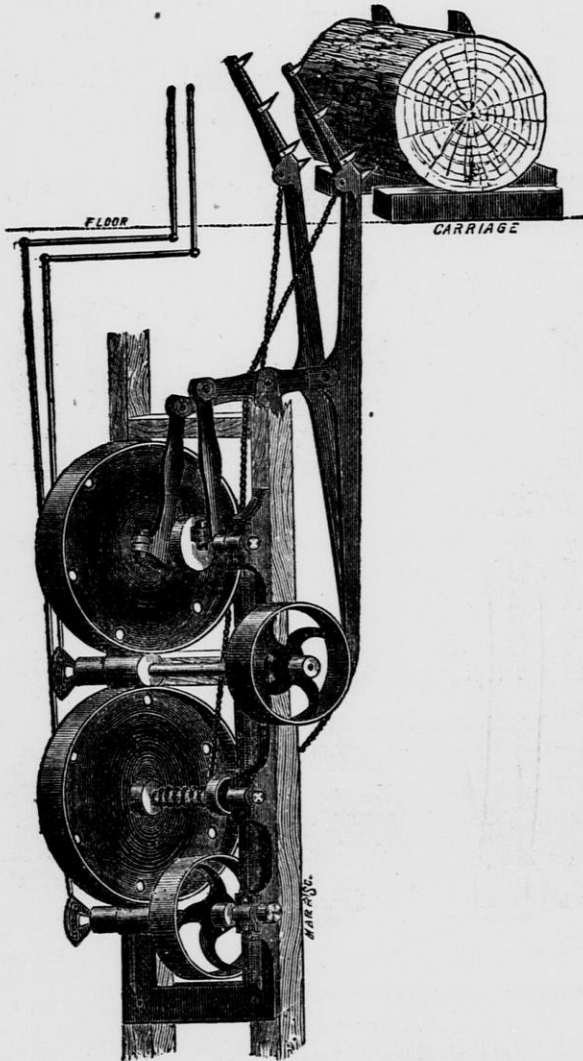
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Any Point.**

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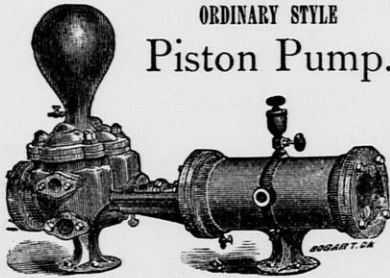
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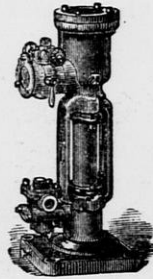
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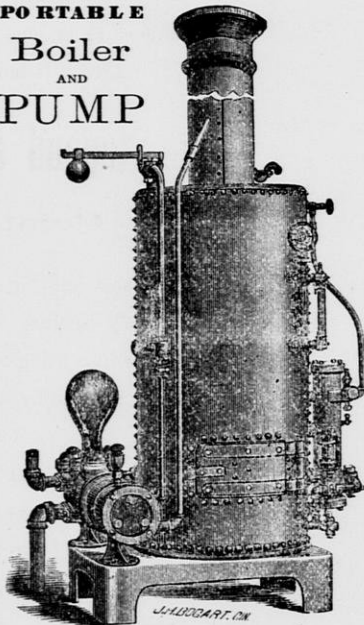
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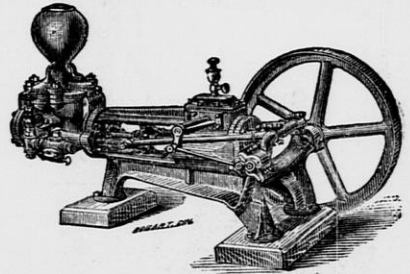
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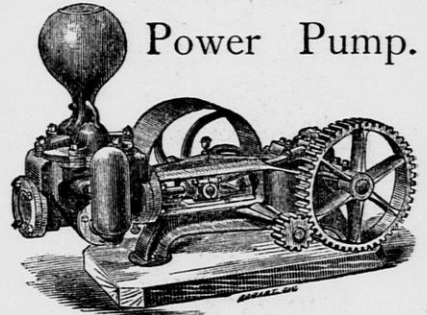


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Very truly yours,

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State Whether it is Run by Water or Steam,  
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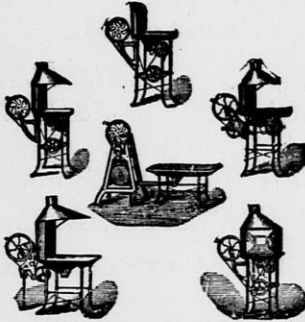


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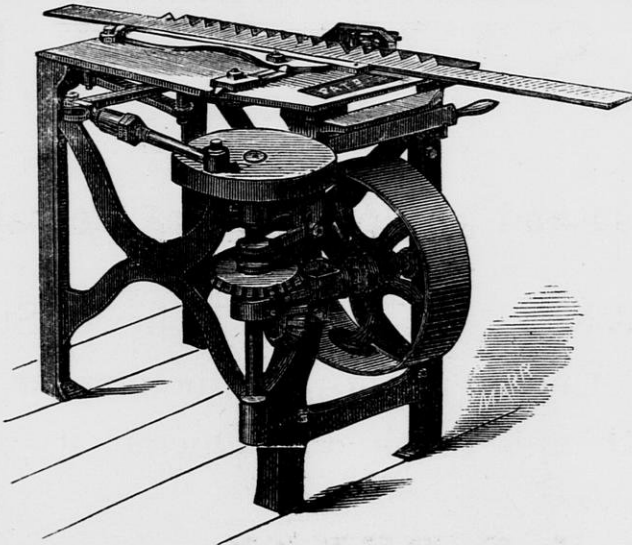


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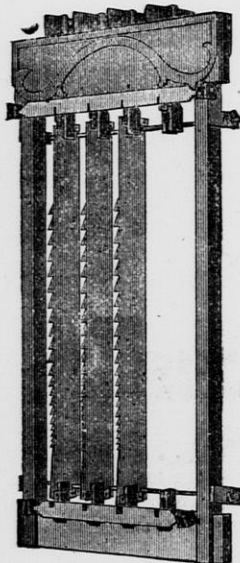
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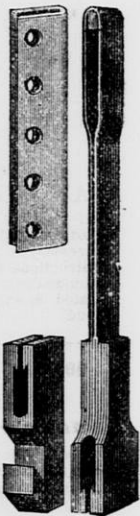
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Blowing Engines, Mill and last Furnace Machinery,  
Iron and Brass Castings, &c.  
**FORT HOWARD, WISCONSIN.**

**TIME TABLE IN EFFECT JAN. 3, 1875.**

STATIONS.	TRAINS GOING WEST.	
	Accom.	Pass.
Green Bay.....	8 40 a.m. dp.	9 40 a.m. dp.
Seymour.....	11 05	10 30
New London.....	2 00 p.m.	11 35
Amherst.....	5 40	1 20 p.m.
Plover.....	6 50	1 50
Grand Rapids {	8 15 p.m. ar.	2 30
Black River.....	7 00 a.m. dp.	4 45
Merrillan.....	12 05 p.m.	5 25
Whitehall.....	1 00	6 48
Arcadia.....	4 10	7 27
Winona.....	5 35	8 40 p.m. ar.
	7 50	

STATIONS.	TRAINS GOING EAST.	
	Pass.	Accom.
Green Bay.....	6 40 p.m. ar.	7 25 p.m. ar.
Seymour.....	5 50	5 05
New London.....	4 50	2 00 p.m.
Amherst.....	3 30	10 40
Plover.....	3 00	9 30
Grand Rapids.....	2 25	8 00 } a.m. dp.
Black River.....	12 05 p.m.	7 30 } p.m. ar.
Merrillan.....	11 44	2 40
Whitehall.....	9 58	1 50 p.m.
Arcadia.....	9 15	10 40
Winona.....	8 00 a.m. dp.	9 15

Trains are run daily, Sundays excepted. Trains run on Chicago time.

**CONNECTIONS:**

At Green Bay with C. & N. W. R'y for Appleton, Neenah, Oshkosh, Fond du Lac, Milwaukee and Chicago, and with Wisconsin Central R. R. for Milwaukee.

At Amherst with W. C. R. R. for Waupaca and Weyauwega.

At Plover with Stages for Stevens' Point.

At Grand Rapids with W. V. R. R. for Tomah and Wausau.

At Black River with Omnibus Line for Neillsville.

At Merrillan with W. W. R. R. for Eau Claire, Hudson and Stillwater.

At Winona with C. M. & St. P. R'y for St. Paul, Minneapolis and La Crosse, and with W. & St. P. R. R. for points west.

Through Tickets from all Stations to Milwaukee and Chicago, via Green Bay at same rates as via Amherst.

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**THE ONLY FIRST-CLASS ROAD IN THE WEST.**

(See Classification of Railroads by Board of Railroad Commissioners.)

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From CHICAGO to

## KANSAS CITY AND THE WEST

AND

**ST. LOUIS, TEXAS and the SOUTH,**  
Joliet, Bloomington, Springfield, Alton, Jacksonville, Peoria, Keokuk, Moberly, Jefferson City.

**NO CHANGE OF CARS**

From Chicago to Kansas City, St. Louis, Springfield and Jacksonville.

The ONLY LINE running

**Reclining Seat Palace Cars**

From CHICAGO to KANSAS CITY without change.

**PULLMAN PALACE SLEEPING CARS**

Run to Kansas City without change.

**94 Miles Shorter Route to Texas**

Than the old Roundabout Route via Hannibal.

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To SPRINGFIELD and ST. LOUIS,

And making the time to

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The only Line running Pullman Palace Sleeping Cars from Chicago to Springfield, Jacksonville, and St. Louis.

The only Line under one management from Chicago to Springfield, St. Louis, Jacksonville and Jefferson City.

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Run through WITHOUT CHANGE from

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DETROIT,	MONTREAL,	DAYTON,
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CLEVELAND,	PORTRLAND,	TERRE HAUTE,
BUFFALO,	BO' ON,	CHAMPAIGN, Ill
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CINCINNATI,	BALTIMORE,	JACKSONVILLE
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—ALSO FOR—

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**PRINCETON, BERLIN**  
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Stevens Point, Wausau,

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And ALL POINTS SOUTH and EAST should  
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Clos Connections made with all Railroads running  
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From 2 to 10 Fast Express Trains run each way  
 Daily over the various lines of this road, thus secur-  
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See that your Tickets READ VIA THIS ROUTE,  
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OPERATED BY PHILLIPS AND COLBY CONSTRUCTION CO.

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## ALL POINTS in the GREAT NORTHWEST

### The Direct Route to the IMMENSE LUMBER DISTRICT

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Between Stevens Point and end of track a train  
 runs each way daily, (Sunday excepted.)

### NO CHANGE OF CARS

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COMMENCING MAY 1st, 1874, all trains of this Road  
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ATTACHED TO ALL NIGHT TRAINS.

Passengers for FOND DU LAC, SHEBOYGAN and  
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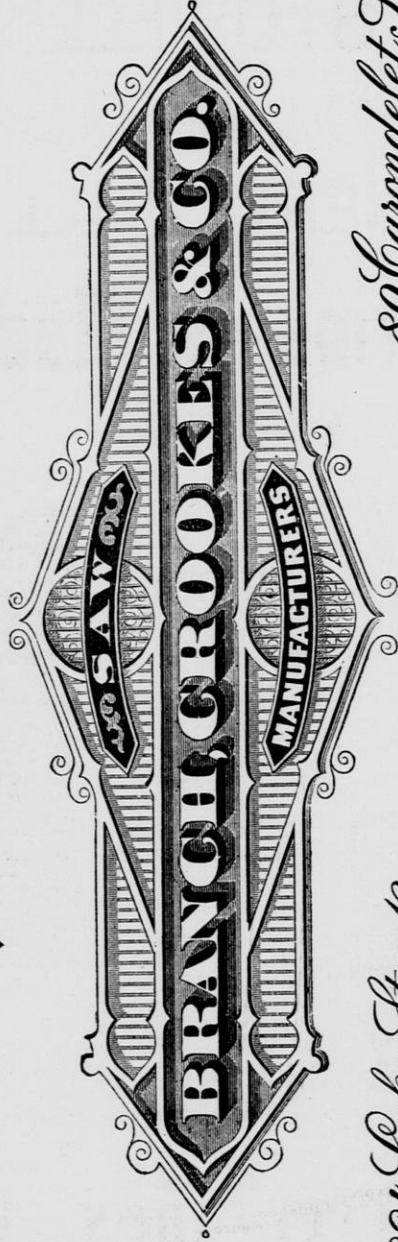
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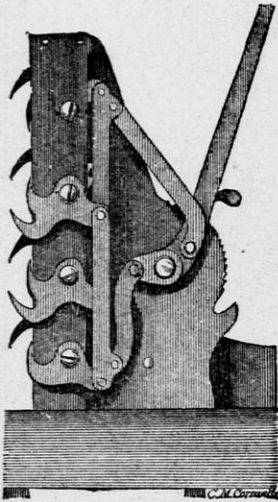
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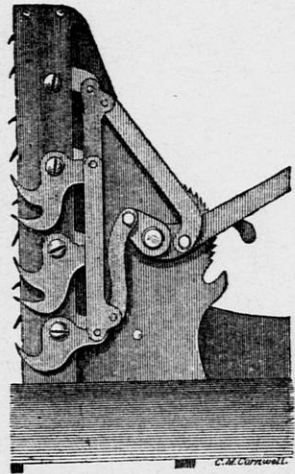
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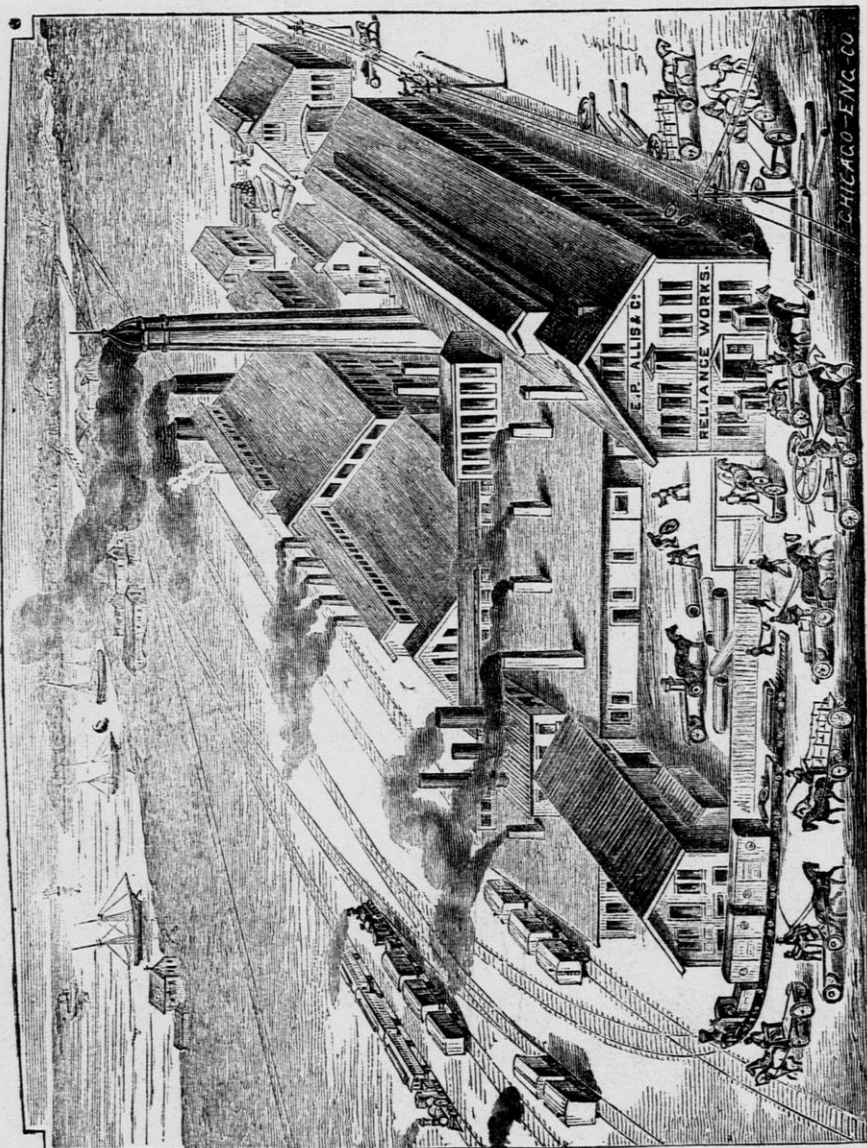
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