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The Wisconsin lumberman, devoted to the lumbering interests of the northwest. Volume III. Number 4 January, 1875

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1875

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THE
Wisconsin Lumberman,

DEVOTED TO THE

LUMBERING INTERESTS OF THE NORTHWEST.

JANUARY, 1875.

PRINCIPAL CONTENTS:

Log Crop of Brown County	201	Alaska Timber.....	249
The Green Bay District.....	202	Toledo Lumber.....	247
The St. Croix Valley.....	204	Jack Burden's Spruce.....	249
The Lumber Trade of Quebec.....	207	The Chippewa Valley, 1874.....	251
Lumbering in Oregon.....	212	Williamsport Lumber.....	252
The East Shore	214	Out of the Woods	253
Sturgeon Bay.....	217	The Lumbermen's Remonstrance	254
Protest Against Reciprocity.....	220	Lumber Transportation.....	257
Wisconsin's Geology.....	224	Timber of the Southern States.....	265
Boiler Explosions.....	236	Sheboygan Manufacturing Co.....	266
The Albany Lumber Trade	240	Markets, Register, etc	267
Railroad Building for 1874.....	244		

MILWAUKEE

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
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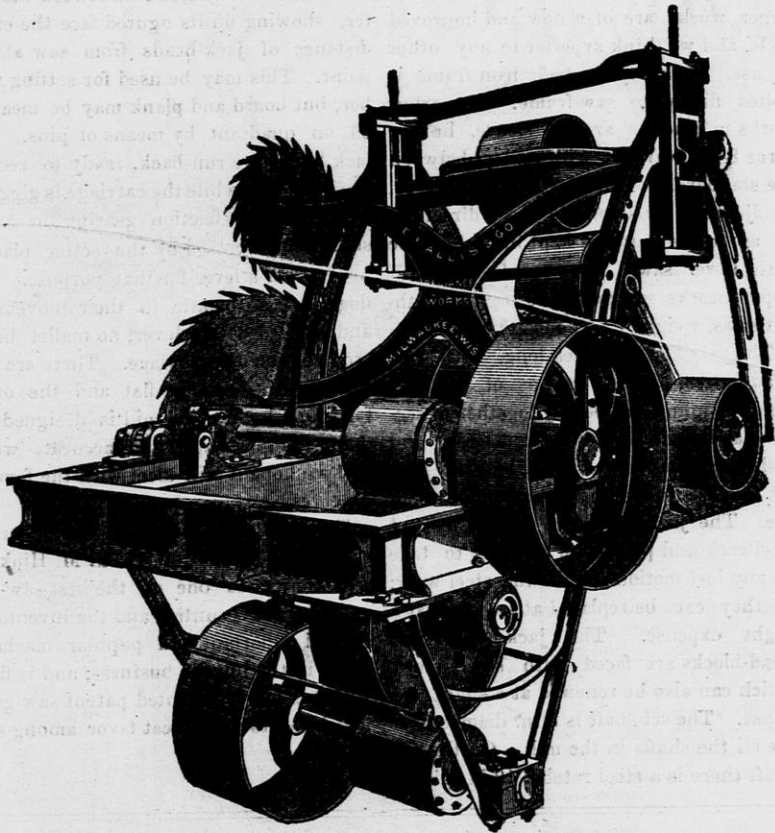
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New Iron Frame Double Circular Saw-Mill.



A Description of Interest to Practical Mill-Men—A Fine Product of the Reliance Works of E. P. Allis & Co.

We present above an illustration of a new Iron Frame Double Circular Saw Mill recently placed before the public by Messrs. E. P. Allis & Co., of the Reliance Works, in this city, with detailed description for the benefit of our readers.

This mill has iron saw frame, 10 inches deep, and heavily flanged top and bottom. The feed is belted from tail of arbor and gig, driven by the tight side of main belt, working on a 30-inch pulley. The pinion shaft is driven by a

30-inch friction pulley, with 12-inch face and solid web center, turned all over, and is worked between the feed and gig paper frictions—which are 12 in. diameter and 13 in. face—by means of an eccentric box operated through levers by the sawyer. 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 $2\frac{1}{2}$ in. diameter. There is a

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

The carriage is 24 feet long, with two head-blocks; but by means of our new rigid coupling can be put together in sections and made any length desired, and with any number of head-blocks. The set works are the most perfect now in use. The jack-heads are worked by cast steel rack and pinion, so made as to take up any lost motion should the steel wear; or they can be replaced at any time at a slight expense. The jack-heads and head-blocks are faced with steel plate, which can also be renewed at a slight expense. The set-shaft is 8 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 giggering, 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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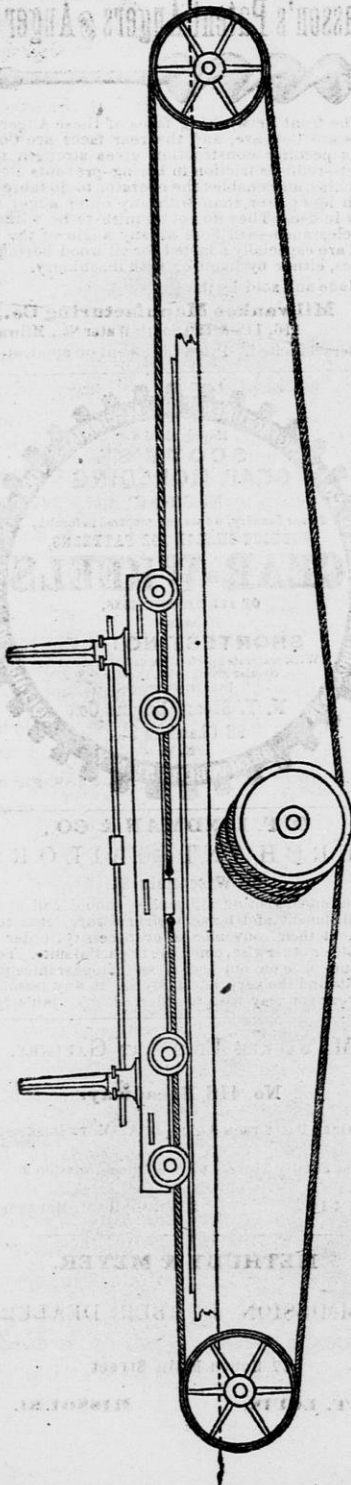
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Issued October 8th, 1874.



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 corked 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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Green Bay

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ST. LOUIS,

MISSOURI.

T H E

WISCONSIN LUMBERMAN.

VOL. III.—JANUARY, 1875.—No. 4.

TO WISCONSIN LUMBERMAN READERS.

The present number of the WISCONSIN LUMBERMAN is belated owing to the fact that on the first of January a change in its proprietorship occurred, and considerable time was therefore necessary to so arrange matters that the publication might, hereafter, be issued in an improved style, and in accordance with the enlarged facilities for publication now enjoyed by the proprietors of the WISCONSIN LUMBERMAN. The *Milwaukee Journal of Commerce*, the *Milwaukee Evening Times*, (daily), and the WISCONSIN LUMBERMAN, have been purchased by the Wisconsin Publishing Company, and a daily, weekly, and monthly publication will be issued under the management of the said company. Hereafter the WISCONSIN LUMBERMAN will furnish the largest amount of interesting information ever published by any magazine in the West. The price of \$2 per year will not be increased. The February number will be issued in two weeks, and will indicate the improvements made. Letters to the publication should be directed as heretofore, to the WISCONSIN LUMBERMAN, Milwaukee.

THE LOG CROP IN BROWN COUNTY.

GREEN BAY, Jan. 16, '75.

As heretofore stated, the log crop for 1875 will be fully up to 1874, in Brown county. Hard times seem to be an *incentive*, rather than a hindrance, to getting out logs, because about every man of the jobbing or manufacturing fraternity, seems to think that every other man in the craft is hard up, and can't do much this year; so he proposes to make a "big thing" by getting out a large stock. Lumbermen are hard at work, doing what they can, in hopes of a better time coming, and more of it, soon.

From the most reliable available information, the crop of '75, in Brown county, will stand as follows :

On west side of Fox River—

	Feet
A. Weed & Co, Suamico.....	7,000,000
Trimble & Co.....	8,000,000
Wm. Cook.....	4,000,000

About half of Cook's logs are for Peter's & Co.; balance for himself.

	Feet
Munro & Bros., Suamico.....	5,000,000
A. Grenier, Jobber, Suamico.....	2,000,000
N. C. Foster, Ft. Howard, Mill in Pittsfield	9,000,000
Oscar Gray, " " " "	5,000,000

There are also two or three small concerns in Lawrence and West Wrightstown which will get out, per-

haps, 2,500,000 feet more, making all together, about 42,500,000 feet on the west side of Fox River.

On east side of Fox River—

	Feet.
L. J. Day & Co., Green Bay, two mills in Glenmen.....	5,000,000
L. J. Day & Co., Green Bay one mill in Holland.....	1,500,000
B. M. Holmes, Green Bay, mill in Rockland.....	3,000,000
Blake & James, Deperre, one mill in Rockland.....	2,500,000
Geo. H. Cook, Green Bay, mill in Easten.....	5,000,000
Ben Smith, Deperre, mill in Glenman.....	3,000,000
Dr. Van Norstrand, Green Bay, mill in Humbolt.....	2,500,000
O. M. Warn & Co., Green Bay, mill in Humbolt.....	1,500,000
Earl & Case, Green Bay, mill in Humbolt.....	1,000,000
Two Rivers Manufacturing Co., Two Rivers, cut in Brown county.....	2,000,000
Some three or four other smaller concerns, say.....	1,500,000

Making an aggregate of 28,500,000 feet on the east side of Fox River, and 11,000,000 feet in the county.

Of course these figures may vary from the actual "cut," but from present indications, they will not fall far short.

After their winters pine crop is taken off their will be left in the county, according to the best available estimates, as follows.

	Feet.
On west side Fox River, Oscar Gray will have.....	5,000,000
Trimble & Co.....	70,000,000
A. Weed & Co.....	8,000,000
Wm. Cook.....	2,500,000
Other small lots.....	6,000,000
Total.....	91,500,000

On east side Fox River about.....25,000,000

Making 116,500,000 feet altogether in the county.

The pine on the east side of Fox River is chiefly held by the Two Rivers Manufacturing Co., so that there will be very little for the mills to do next year.

On the west side the pine is chiefly held by four concerns, and largely, in fact, by one, viz: Trimble & Co., so that about one year more will

close up all the mills except Trimble & Co.'s and Weed & Co.'s.

The latter mill having been burned down, the company have decided to rebuild in Green Bay. Should they do this, they will be in a position to secure stocks from Suamico not only, but from any points most convenient on the Bay Shore.

W. P. LINDSLEY.

THE GREEN BAY DISTRICT.

FORT HOWARD, Jan. 5, 1875.

EDITOR WISCONSIN LUMBERMAN:

Dear Sir:—In accordance with repeated promises made, I herewith send you some items that may interest a few of your numerous readers.

Whether this intended letter will be thought worthy of insertion in the columns of the WISCONSIN LUMBERMAN, or into the LUMBERMAN waste-basket, with the "devil" of the office as its escort, is a problem that is supposed to be solved by the editor, and not by the timorous applicant, who nervously awaits the result of his venture as an amateur scribbler. And I need not dwell or occupy, unnecessarily, your time reiterating the oft-told tale of your humble contributor being a constant reader of your valuable journal. I consider it valuable to those whose interests it represents, and these are identical with my own. The information its columns contain, upon that all-important industry—LUMBER—is well worthy of an extended patronage, which I have no doubt it is receiving.

As lumber has been the superstructure upon which this city has been built, and I believe is still the shrine; and the only one that lumbermen and

their dependants worship here, as well as along the Green Bay shore, you can hardly take it amiss if I should call your attention to one of the snuggest, and I may say most profitable, institutions of its kind in the county. Owned and operated by the proprietor, N. C. FOSTER, Esq., of Fort Howard, this mill is situated fourteen miles west of this city, on the line of what is known as the Wolf River road, designated in Uncle Sam's Postoffice reports as Owego. The name is significant of the place, as the following figures will show:

The dimensions of the mill, which is the source that furnishes the staff of life for the settlers in the immediate neighborhood, are, main building, 30x140 feet; wing attached for shingle mill, 30x40 feet; boiler room, 22x38 feet. The machinery consists of one double rotary mill, gang edger, valentine machine, and one of the Monitor Iron Works' celebrated hand shingle machines, timber stealer, for cutting shingles from waste lumber, saw filing machine, &c. In fact it contains all of the modern improvements for lessening labor and improving the cut. The power used to drive this concern consists of one horizontal, high pressure engine, 20 inch bore, and 28 inch stroke, manufactured by the above mentioned firm, with three 42 inch boilers, 22 feet long. The business of this establishment closed for the season Nov. 20, '74, showing a cut of eight and a half million feet of logs, which produced 26,000,000 shingles, and 2,000,000 feet of lumber, mostly of the upper grades. There is on hand, at the present time, 1,500,000 feet of

lumber, and 4,000,000 shingles. As the proprietor owns some 5,000 acres of timber land it is his intention, weather permitting, to stock up for the coming year to the amount of 10,000,000 feet of logs. The number of hands employed in and around the mill, including sawyers, laborers, and jobbers, averages, the year round, one hundred, mostly men of family, who have located within easy reach of their respective places of employment, and built for themselves and families small, but comfortable dwellings, including a nice school house, where their children can be taught the rudiments of elementary instruction, making one of the thriftiest and go-ahead settlements in this or Shawano county, with a shingle mill that ranks second to none of its size in the State.

Yours,

TRANSIENT.

Much sickness at Vernon.

Berlin masquerades Feb. 17.

An iron foundry for Wausau.

Walworth county is short of water.

Rooster show in Milwaukee March 1st.

That Jansville cotton factory is nearly up.

Genesee is a candidate for a cheese factory.

The Appleton blast furnace is erecting nail works.

The new jail at Jefferson is about completed.

Fond du Lac claims the next biggest tannery.

Appleton has the State Firemen's Association Tuesday.

Oconomowoc's monthly cattle show came off Tuesday.

THE ST. CROIX VALLEY.

REVIEW OF ITS LOGGING AND LUMBERING OPERATIONS FOR 1874.

Estimated Crop of 1875—The Stock Now on Hand—Comparison of Last Season's Business with that of Former Years.

Durand & Wheeler, acknowledged authority on statistics concerning logs and lumber business on the St. Croix, furnish us in the following elaborate table their annual review of the business for the year 1874:

	Feet.
Amount of logs received from St. Croix boom, as per report of Jno. S. Proctor, Esq., Secretary.....	167,170,525
Amount of logs measured at Surveyor General's office, as per report of I. E. McKusick, Surveyor General.....	189,933,221

AMOUNT OF LUMBER MANUFACTURED BY MILLS OF ST. CROIX WATERS.

Lumber, feet.....	85,774,149
Shingles, pcs.....	41,412,075
Lath, pcs.....	24,110,375
Pickets, pcs.....	275,650
Valued at \$1,399,860.18.	

LUMBER ON HAND.

Lumber, feet.....	26,517,000
Shingles, pcs.....	7,151,000
Lath, pcs.....	5,300,000
Pickets, pcs.....	80,000

DISPOSITION OF LOG PRODUCT, 1874.

	Feet.
Logs on hand spring, 1874, including logs in mill boom, lake logs and logs rafted	30,000,000
Logs received from main boom.....	167,170,525
Logs rafted above boom.....	1,500,000
Total.....	198,670,525
Logs manufactured into lumber, lath, shingles, and pickets.....	93,274,149
Logs sold in rafts.....	65,396,376
Logs in mill booms on hand.....	27,800,000
Logs rafted and unsold.....	12,200,000
Total.....	198,670,525

VALUE LOG PRODUCTION SEASON, 1874.

Lumber, lath, shingles and pickets manufactured.....	\$1,399,860.09
Logs sold.....	686,601.94
Logs on hand, 40 millions less amount held over from 1873, 30 million feet, 10,000,000 feet at \$10 per M feet.....	100,000.00
Total value.....	\$2,186,522.00
Value of log crop, 1873.....	2,031,966.10
Value of log crop, 1872.....	2,199,600.00
Value of log crop, 1871.....	2,123,139.00

Comparative statement of Lumber manufactured during the past four years :

SEASON OF 1874.

Lumber, feet.....	85,774,149
Lath, piece.....	24,110,375
Shingles, pcs.....	41,412,075
Pickets, pcs.....	265,650

SEASON OF 1873.

Lumber, feet.....	88,068,976
Shingle, pcs.....	20,000,000
Lath, pcs.....	22,477,000

SEASON OF 1872.

	Feet.
Lumber.....	52,000,000
Manufactured into lath and shingles.....	4,000,000

SEASON OF 1871.

	Feet.
Lumber.....	61,466,580
Manufactured into lath and shingles.....	1,739,521

Comparative statement of log production on the St. Croix and its tributaries during the past eighteen years:

	Feet.
From 1856 to 1864 the cut was.....	325,000,000
In 1865 the cut was.....	108,617,316
1866.....	85,000,000
1867.....	86,000,000
1868.....	87,000,000
1869.....	157,612,223
1870.....	133,149,933
1871.....	139,536,000
1872.....	263,282,312
1873.....	163,183,628
1874.....	167,170,525
Amount of logs and lumber rafted and now on hand above boom.....	59,000,000
Total.....	1,718,531,937

The highest figures obtained for logs during the season was \$13.75 per thousand feet for choice logs, rafted at Stillwater. The lowest figures was \$6.20 for logs not rafted.

There are now, it is estimated, 12,000,000 feet of logs in the St. Croix, above the boom and below Taylor's Falls. There are at Stillwater some 12,000,000 feet of logs, mostly rafted, and intended for down river market. Stillwater log men have 10,000,000 feet of logs tied up for the spring trade, below Lake Pepin.

CUT OF MILLS, SEASON 1874.

SCHULENBURG, BOECKELER & CO., STILLWATER.

Lumber, feet.....	23,000,000
Lath, pieces.....	7,000,000
Shingles, pieces.....	4,000,000
Pickets, pieces.....	100,000

The product of this mill is shipped

to their mammoth lumber yard at St. Louis, and is manufactured from the best grade of logs cut on the St. Croix waters. Their purchases of logs the past season exceeded 25,000,000 feet, and cost, delivered in their mill boom, 810.54 per thousand feet.

They have on hand at their mill.

Lumber, feet.....	4,067,000
Lath, pieces.....	600,000
Shingles, pieces.....	300,000
Pickets, pieces.....	25,000

While in their mill boom they hold 5,100,000 feet of logs for spring sawing.

The lumber cut by this mill will undoubtedly average much higher in grade and consequently in value, than the products of other mills in this vicinity. The entire product of the mill is credited up to sawing and mill account at \$15 per thousand feet.

MILL OF ISAAC STAPLES, AT STILLWATER.

Lumber, feet.....	14,000,000
Shingles, pieces.....	6,500,000
Lath, pieces.....	4,500,000
Pickets, pieces.....	50,000

LUMBER ON HAND.

Lumber, feet.....	4,000,000
Shingles, pieces.....	1,000,000
Lath, pieces.....	1,000,000
Pickets, pieces.....	10,000

A portion of the product of this mill was shipped to the owner's yards at St. Paul, and to various points on the Minnesota river. The greater portion, however, was rafted and sent to points on the Mississippi.

SEYMOUR, SABIN & CO., STILLWATER.

Lumber, feet.....	6,293,504
Shingles, pieces.....	3,953,075
Lath, pieces.....	1,662,375

DISPOSITION OF MILL PRODUCT.

Shipped by water, feet lumber.....	1,350,000
Shipped by rail, feet lumber, including sash, doors, blinds, mouldings and wooden-ware.....	2,830,000

LUMBER ON HAND.

Lumber, feet.....	2,100,000
Shingles, pieces.....	1,000,000
Lath, pieces.....	600,000
Logs on hand, feet, estimated.....	1,200,000

Value of sales of lumber, shingles,

and lath, including wooden ware manufactures, etc., \$72,000.

SAW MILL OF HERSEY, BEAN & BROWN, STILLWATER.

Lumber, feet.....	13,500,000
Shingles, pieces.....	6,500,000
Lath, pieces.....	4,500,000
Pickets, pieces.....	50,000

DISPOSITION OF MILL PRODUCT.

Shipped by water, lumber, feet.....	5,640,529
Shipped by water, lath, pieces.....	1,613,350
Shipped by water, shingles, pieces.....	1,782,000
Shipped by water, pickets, pieces.....	28,515
Shipped by water, mouldings, feet.....	31,400
Shipped by rail, lumber, feet.....	2,844,000

LUMBER ON HAND, AS PER ESTIMATE, DECEMBER 1, 1874.

Lumber, feet.....	8,000,000
Shingles, pieces.....	1,500,000
Lath, pieces.....	1,300,000
Pickets, pieces.....	10,000

MILL OF WALKER, JUDD & VEAZIE, AT MARINE.

Lumber, feet.....	2,200,000
Shingles, pieces.....	1,250,000
Lath, pieces.....	500,000
Shipped to their lumber yards at Prescott and 4 other points, by water, feet.....	1,000,000
Sold to local trade, feet.....	400,000
On hand, feet.....	800,000
Shingles sold, pieces.....	1,000,000
On hand, pieces.....	250,000
Lath sold, pieces.....	350,000
On hand, pieces.....	150,000
Logs on hand in mill boom, feet.....	800,000

SPENCER & CO., SOUTH STILLWATER SHINGLE MILLS.

Commenced operations Nov. 1, '74.

Shingles, pieces.....	500,000
Shingles on hand, pieces.....	400,000

M'KUSICK, ANDERSON & CO., EAST STILLWATER.

Lumber, feet.....	2,000,000
Shingles, pieces.....	2,000,000

The product of this mill is intended for the lumber yards on the Sioux City railway, belonging to the firm, and for the local trade of this city and vicinity.

Lumber on hand, feet.....	750,000
Shingles, pieces.....	400,000

MILL OF J. M. KELLER, SOUTH STILLWATER.

Lumber, feet.....	2,500,000
Shingles, pieces.....	750,000
Lath, pieces.....	700,000
On hand, feet lumber.....	1,000,000
On hand, shingles, pieces.....	250,000
On hand, lath, pieces.....	200,000

MILL OF CASTLE & GASLIN, SOUTH STILLWATER.

Lumber, feet.....	1,200,000
Shingles, pieces.....	450,000

The product of this mill was mostly sent to points below, for sale.

ST. CROIX LUMBER CO., SOUTH STILL-WATER.

Lumber, feet.....	6,000,000
Shingles, pieces.....	7,000,000
Lath, pieces.....	2,000,000
Pickets, pieces.....	25,000

DISPOSITION OF MILL PRODUCTS.

Lumber shipped by rail, feet.....	1,400,000
By water, feet.....	600,000
On hand, feet.....	4,000,000
Shingles, by rail, pieces.....	5,000,000
On hand, pieces.....	1,000,000
Lath, by rail, pieces.....	1,000,000
On hand, pieces.....	2,000,000
Pickets, by rail, pieces.....	10,000
On hand, pieces.....	15,000

Average price for lumber sold, \$15 per thousand feet.

Logs on hand in mill boom, 1,500,000 feet.

C. N. NELSON & CO., LAKE LAND.

Lumber, feet.....	4,930,645
Shingles, pcs.....	3,400,000
Lath, pcs.....	1,648,000
Pickets, pcs.....	44,650
Lumber on hand, pcs.....	800,000
Shingles on hand, pcs.....	200,000
Lath on hand, pcs.....	200,000
Pickets on hand, pcs.....	10,000
Logs on hand, ft.....	2,000,000

The entire cutting of this mill was sent to St. Louis.

C. S. GETCHELL & CO., AFTON.

Lumber, ft.....	4,000,000
Shingles, pcs.....	4,400,000

All shipped in raft to Burlington, Iowa.

OLDS & LORD, AFTON.

Lumber, ft.....	2,500,000
Lath, pcs.....	1,000,000

All rafted for market on the Mississippi.

MILLS OF JOHN DUDLEY AT POINT DOUGLAS AND PRESCOTT.

Lumber, ft.....	3,000,000
Shingles, pcs.....	600,000
Lath, pcs.....	500,000
Lumber on hand, ft.....	1,000,000
Shingles on hand, pcs.....	250,000
Lath on hand, pcs.....	250,000

Mr. Dudley has sold the lumber cut by him mostly at retail from his lumber yards located at Hastings and elsewhere in the state.

CAMPBELL, KIPPEN & CO., LAKE LAND.

Lumber, ft.....	650,000
Lath, pcs.....	100,000

Sold to local trade at mill.

The average price of logs during the season just closed has been 10.50 per thousand feet for logs rafted and fitted for running. The average price obtained for lumber has been \$14 per thousand feet. This, of course, includes lumber of all grades at wholesale and retail prices.

The quality of our St. Croix logs the past year has been of a much higher grade than our stock of any former year, being made up from timber cut on Yellow, Clam, Nimeacoggin and Totogatic rivers. As a large number of camps are engaged in cutting in the same localities the present winter, we may reasonably expect to offer our customers a good stock of logs for their mills the coming summer.

ESTIMATE OF LOGS CUT WINTER 1874-5.

From the only source available at this time to base our estimates on, we figure the logs to be cut the present winter as follows :

	Feet-
Totogatic and Eau Clair rivers.....	22,000,000
Nimeacoggin.....	12,000,000
Clam and Yellow.....	21,000,000
Apple.....	4,000,000
Upper St. Croix.....	9,000,000
Kettle and Tamarack.....	9,580,000
Wood.....	8,000,000
Snake and tributaries.....	33,500,000

Total.....118,080,000

At this date, Dec. 14, there is but very little snow in the woods, not to exceed six inches on any of the tributaries of the St. Croix while all supplies not sent by rail are being hauled to camp on wagons. Of course an unfavorable season may lessen, while a favorable winter for producing logs may increase the cut over the estimate given above.

THE QUEBEC CIRCULAR.

The season which has just drawn to a close, has been one of doubt and uncertainty, alike unsatisfactory to the manufacturer and to the shipper.

The threatened scarcity of tonnage to carry home the supply of timber and deals, caused a rapid advance last spring in the rates of freight; vessels were chartered at high figures, and as a consequence, a large number were attracted to this port seeking cargoes. The result was a large spring and summer shipment, which certainly reduced the stock here, but failed to cause any animation in our market. Although the consumption of the United Kingdom throughout the year has been very fair, the large import of last spring had a depressing influence on the markets there, from which they are only now slowly recovering.

We annex, as usual, the statements of supply, export, and stock of timber, deals, &c., wintering at this port, as well as our comparative statements, prices current, &c., &c., which we trust will prove interesting as well as useful to the trade.

The total supply the past season is about equal to that of 1873, the excess in red wood and hard pine making up the deficiency caused by the short supply of white pine, and the total export 20,649,040 cubic feet, against 16,701,500 in 1873. The export of deals (spruce and pine) 1,613,568 standard more than last year.

The stock wintering (square and white pine excepted) is large, and although it may be unnecessary for us to recommend curtailment in the manufacture of red pine and hard-

woods, believing that very little will be produced this winter, still we think a word of caution at this season may not be amiss; and even in square white pine, looking at the stock here (light as it is) together with the supply in Great Britain, we see nothing to justify any expansion in the production this winter.

The export of sawn lumber to the United States continues to be under the average of past years, still it is very large and must increase owing to the depletion of the pine forests in the timber producing states of the Union. We may also mention that the requirements of the Dominion for home consumption is beginning to be very sensibly felt, the quantity of lumber consumed by some of our large cities being very great.

The trade with South America again shows a decline, and by the annual statement, for which we are indebted to Messrs. W. M. Freer & Co., Montreal, the total shipments amount to seventeen millions of feet board measure, against twenty-five last year.

WHITE PINE—Waney Board has been sparingly manufactured, the actual supply being less than the figures shown, as some lots which arrived last season were only measured this year. The shipment has been light, and the quantity wintering considerably over the average of past years, although under the stock which was on hand twelve months ago.

This wood has been difficult of sale all season, the price low and under the cost of production, generally

speaking. The production this winter will be very limited.

SQUARE—During the spring and summer months, few rafts changed hands, a fact without precedent, considering the very large fleet in port at that time, and when new timber commenced to arrive, it became more difficult to effect sales. With the exception of a limited quantity for immediate shipment, few transactions of any magnitude took place until the month of September, when our merchants began fully to realize the fact that the supply would be short. Since then large sales have been effected, and at the present time the number of rafts in first hands is exceedingly small. The market closed firm, and at an advance on previous rates. The stock wintering consists chiefly of good timber, with very little common and inferior wood. Rafts of large, first class timber are also scarce, the cost and difficulty in procuring this description of pine becoming more seriously felt every year.

	Supply.	Export.	Stock.
1874..	7,363,547 Sq.	13,518,920	8,211,490 Sq.
" ..	1,829,264 W'y.		4,053,272 W'y.
1873..	10,443,200 Sq.	10,580,240	12,794,546 Sq.
" ..	3,966,187 W'y.		4,655,215 W'y.

RED PINE—This wood opened at fair prices in spring, and was in good demand, consequent on the light stock then in market. As the season advanced and the new supply commenced to arrive, prices were reduced and sales only effected with some difficulty. The supply has been excessive (contrary to the advice given in our Annual Circular of 1873) and the stock now wintering very heavy, but composed to a considerable extent of small and inferior wood,

quite unsuitable for shipment. The amount of choice and large average in stock and first hands being exceedingly limited.

From reliable information, we have every reason to believe that the production this winter will be lighter than for very many years.

	Supply.	Export.	Stock.
1874.....	3,692,869	1,413,280	3,404,124
1873.....	1,711,985	987,840	1,253,166

OAK—The supply has been heavy, the export large, and the stock on hand about 700,000 feet more than last year. Prices for both American and Canadian manufacture became weak in spring, dropped very materially about mid-summer, and rallied but slightly towards the close for Ohio and Michigan.

The quantity being manufactured this winter is small, and though there may be a certain proportion of last year's production to come forward, the supply will be moderate, as present prices are unremunerating and offer no inducements to the manufacturer.

	Supply.	Export.	Stock.
1874.....	4,565,676	3,433,280	2,994,788
1873.....	4,211,404	3,085,160	2,288,456

ELM—The demand and high prices which ruled during the years of 1872 and 1873, induced manufacturers to extend operations, so that we have to record a supply greatly in excess of past years, and a stock wintering of fully 600,000 feet more than the average.

The production this winter will be on a very limited scale.

	Supply.	Export.	Stock.
1874.....	2,533,038	1,171,280	1,771,935
1873.....	1,438,939	1,062,680	496,068

ASH—The supply has been unusu-

ally large, and the stock on hand more than double the average of the past five years. We may, however, remark that a large proportion is small and inferior, and more adapted for local consumption than for shipment.

	Supply.	Export.	Stock.
1874.....	1,012,954	365,560	849,808
1873.....	249,188	245,280	70,959

BIRCH.—The stock on hand is about 120,000 feet more than last year, a good deal having come from Western Canada, the producers being tempted by the high prices of 1872 and 1873. A very small quantity will be got out this year.

	Supply.	Export.	Stock.
1874.....	850,954	749,760	300,483
1873.....	893,786	737,880	180,656

TAMARAC.—The demand is now almost exclusively for ship-building purposes, and the export has become a mere nothing, consequently in a year like the present, with few ships building, and more than an average supply, the quantity on hand at present is large.

	Supply.	Export.	Stock.
1874.....	824,838	1,960	222,297
1873.....	60,912	2,480	32,498

STAVES.—PIPE.—The supply has been curtailed, and the export being fully up to the average, the quantity wintering is a few mille under last year.

	Supply.	Export.	Stock.
1874.....	1,869	1,600	1,658
1873.....	2,232	1,588	1,695

PUNCHEON.—Although the manufacture has been light, the export has also been under the average, and the stock not much reduced; the over-production of 1872 and 1873 being still apparent.

	Supply.	Export.	Stock.
1874.....	1,293	1,549	5,586
1873.....	6,856	2,693	6,159

PINE DEALS have been a dull and drooping article all the year, in consequence of the heavy receipts from the Chaudiere and Ontario Mills. The stock wintering is largely constituted of out-sized deals, and of second and third qualities and culls, while the proportion of first quality aad regular sized are less than usual.

The production, export and stock wintering are all in excess of the past years.

	Supply.	Export.	Stock.
1874.....	6,262,510	5,170,411	3,133,618
1873.....	4,552,644	4,650,538	2,232,785

SPRUCE DEALS were slow of sale, at declining prices, until towards the close of the season, when considerable lots were placed at our quotations. The supply, export and stock on hand show a great increase over previous years.

	Supply.	Export.	Stock.
1874.....	2,738,291	2,660,714	1,081,890
1873.....	1,718,528	1,507,049	896,329

FREIGHTS opened at 40s. to 41s. to Liverpool and London, and 37s. to 40s. to Greenock, and receded until the lowest rates were reached in October, closing at the higher figures in November, when 30s. was given to London and Liverpool, 29s. to 30s. to Greenock, and 28s. to 30s. to Bristol.

The tabular statements will assist to give an immediate idea of the facts in relation to the supply this season as compared with that of previous seasons. The deficiency in White pine will be most noticeable.

COMPARATIVE STATEMENT OF THE SUPPLY, EXPORT, AND STOCK OF LUMBER,

To the 1st December, for the Years, 1870, 1871, 1872, 1873, and 1874, Respectively,—with averages of the same period, and five years preceding.

ARTICLES.	SUPPLY.					EXPORT.						
	From Returns from Supervisors and others, for year ending 1st December.					From Customs' Returns for years ending 1st December.						
	1870.	1871.	1872.	1873.	1874.	Average of 5 years' Supply.		1870.	1871.	1872.	1873.	1874.
						1865 to 1869	1870 to 1874					
TIMBER.												
Oak..... Feet	2,917,689	3,567,861	2,471,111	4,211,464	4,505,676	2,266,676	3,524,718	3,232,720	2,050,366	2,953,040	3,085,160	3,433,280
Elm..... do	2,018,854	365,190	121,405	1,438,939	2,533,038	1,370,235	1,205,193	1,297,760	1,210,560	1,051,460	1,002,060	1,171,280
Ash..... do	416,365	298,075	92,023	240,163	1,022,054	160,418	41,128	220,720	272,440	265,080	245,280	365,800
Birch..... do	374,916	136,081	343,022	892,786	850,954	352,832	519,149	341,160	292,080	399,700	737,880	749,960
Tamarac..... do	142,618	72,699	90,352	6,912	347,538	268,852	138,243	24,440	17,800	6,200	2,480	1,760
White Pine..... do	12,615,570	17,367,661	11,151,347	10,443,200	7,363,517	14,562,417	11,288,203	14,141,020	14,673,000	15,514,680	10,880,240	13,513,920
Square..... do	1,504,395	3,447,660	4,440,805	3,960,137	1,809,064	2,285,356	3,033,451	2,207,160	1,577,760	1,941,160	987,840	1,413,280
Waney..... do	1,917,785	1,708,842	932,614	1,711,985	3,692,869	2,561,317	1,992,818					
Red Pine..... do												
STAVES.												
Standard..... Mile	1,030	1,636	1,971	2,232	1,869	1,650	1,749	1,658	1,666	1,466	1,583	1,600
Punchoon..... do	1,237	2,370	4,149	6,856	1,293	3,069	3,222	3,206	2,994	2,805	2,693	1,549
Barrel..... do	20	118	119	101	1	7	71					
DEALS.												
Pine..... Standard	5,160,449	4,549,000	4,949,078	4,552,644	6,262,510	3,829,254	5,094,728	5,197,306	4,166,834	5,267,422	4,650,538	5,170,441
Spuce..... do	860,442	925,000	1,450,000	1,716,523	2,738,291	934,942	1,531,651	1,164,135	885,240	1,753,050	1,567,049	2,606,714
LATHWOOD.												
Red Pine and Hemlock..... Cords.	770	213	64	45	661	10,384	354	1,616	1,021	1,273	1,008	1,778

THE FAR WEST.

The Climate of Oregon and its Peculiarities.

STATISTICAL INFORMATION.

[Correspondence Wisconsin Lumberman.]

PORTLAND, Oregon, Jan. 10, 1875.—

The climate of Oregon is unlike that of any other section of the United States. The state is really in two distinct climates. That portion east of the Cascade range being wholly unlike that west. The climates of Maine and Maryland are scarcely more dissimilar than the two sections of this state. There is a slight difference between the Willamette valley and the Pacific slope—the latter being affected somewhat by the sea air—but is hardly worthy of notice. East of the Cascade range the weather is similar to that east of the Rocky Mountains, except that there is less rain, while west of the Cascades the difference is very apparent.

By referring to the map, it will be seen that Oregon lies between the 42nd and 46th degree north latitude; the northern boundary being about on a line with Montreal, C. E., and the southern on a line with Cape Cod; or to make the comparison more familiar to western people, the north line is about on the parallel with Mackinac, Mich., and the southern with Chicago, Ill. To show the great difference in temperature between this section and the eastern states, the following statistics are given:

	Lat.	Mean Temperature.			
		Spr'g.	Sum.	Aut.	Win.
Portland, O.....	45.30	50.70	66	52	39.3
Portland, Me.....	43. 0	39.1	65.9	47.6	27.8
St. Paul, Minn.....	44.53	40.7	69.1	44.2	15.1
St. Louis, Mo.....	38.37	51.7	76.9	56.8	30.4
New York.....	40.42	47.63	74.7	53.3	30.7

In all western Oregon, from May to November, the climate is delightful. From November to May it is damp, but seldom very cold. During the summer months there is more or less rain, except July and August, which are usually very dry, though

in a period of ten years there has been but one month in which rain has not fallen. The heat is not excessive, the thermometer seldom getting above 90 degrees, and but for a few days at a time to that extreme. The dust is about the only annoyance, though during some seasons the smoke from the forest fires becomes quite dense and gives things quite a gloomy aspect. Tourists find this of some annoyance as it obscures the scenery and deprives them of half the enjoyment of their visits. This is of short duration and of comparatively little consequence. About the middle of September we get our first rains which last for several days, laying the dust and softening the soil—which during the warm weather has become very hard—so that the farmers can start their plows and begin the planting for next seasons wheat crop. The whole of September and October, excepting a half dozen wet days in each, is usually very fine and pleasant. November has more and heavier rains, and nature begins to assume a wintry appearance.

The entire period from the first rains of September, till the middle of November, and sometimes even later, is one prolonged Indian summer. From December to April the "moisture" is great. To new comers it would seem *very damp*—not to say wet. Some years there is a month of dry, cold weather in the middle of winter, though this is an exception to the general rule. It is quite generally supposed that our rainy seasons mean continuous rain during nearly the whole of the winter months. The supposition is incorrect. While it cannot be denied that it rains very easily here, the total rainfall for a year is not so excessive as many have supposed. The following table will give the reader a correct idea of the number of wet days and the amount of rain falling each year.

	Dry	Wet	Showery	Snowy
	Days.	Days.	Days.	Days.
1865.....	227	65	63	10
1866.....	230	73	59	3
1867.....	244	65	44	7
1868.....	272	30	55	9

Average rainfall from 47 to 50 inches.

The rainfall at Astoria and along the coast is greater than at this point. As you go south the amount decreases until in Lower California it becomes quite small.

The average rainfall in San Francisco is about twenty-five inches.

At times the storms last for a week at a time and are very disagreeable indeed, still, on the whole, I prefer the damp wet-foot winter to the terrible cold of the same season in Wisconsin and Illinois. People who come here and pass a year or two, are rarely satisfied to stay away. The difference in temperature is so great, that the "Oregon mists" lose all their terrors, and people choose to live where they are not roasted in the summer and frozen in the winter. California winters may excel ours in the matter of rain and higher temperature, but their summers are hot and sweltering, and the slight difference in the one will not compensate for the great difference in the other. One peculiarity of the Oregon summers, is the entire absence of hot nights. Though the days be warm, and the thermometer up among the eighties, no sooner has the sun disappeared than the influence of the snow-capped mountains is immediately felt, and the evenings become cool and delightful.

I have spent six summers here, and have yet to see a night when a blanket was not required before morning.

Eastern Oregon is just the reverse of this, and many a sweltering night will be necessarily passed if one settles on that side of the Cascades. The soil being of a sandy nature thereby retains the heat of the sun. The prevailing winds blowing towards the mountains, instead of from them, the nights are similar to the days—extremely uncomfortable.

The causes of this great difference of temperature in the two sections of the state do not come within the province of this letter to explain. I shall only say that

in the western section, the prevailing winds are northerly in summer, blowing from the northern ocean and the snow covered mountains, while in winter the winds are from the south. The warm winds from the tropics coming in contact with the snowy ranges, results in a great deal of moisture, and the condensation of this moisture produces rain.

THE HEALTH OF OREGON

is one of the best recommendations that the state has. True, people die here as in other localities, but in a much smaller ratio. Competent authority estimates the death rate of Washington and Oregon to be smaller than any other part of the Union. Statistics compiled by a resident of twenty-five years gives the mortality rate in Massachusetts and Louisiana (extremes) at 1 in 57 population; Vermont, (the healthiest state east of the Rocky Mountains) 1 in 92; California, 1 in 101; Oregon, 1 in 172; Washington Territory, 1 in 228.

In this 172 are included people who have come here in search of health, when already badly diseased, only to die and help swell our mortality rates. Oregon being the most popular and more easy of access, these invalids come here instead of going further north to Washington, which accounts for the great difference in the two localities, the climate being very nearly alike.

People afflicted with palmonary and kindred diseases, in an advanced stage, should avoid coming here. Colorado or Lower California would be much better for them. In the early stages of those diseases, Eastern Oregon would be a desirable place to go to. "Rheumatics" flourish here, hence people inclined to those *soothing complaints*, had better give the webfoot state wide range. Typhoid and intermittent fevers are not uncommon though usually of a mild type. Malarial fevers are the most prevalent but not so severe as the typhoid and are rarely attended with great danger.

Ague prevails, as in all new countries, where people do not take care of themselves, but not of the type which prevails in the valleys of Indiana and Michigan. We have no such gaunt, cadaverous fellows as you will find in the Wabash country, who shake six months of the year, and use up three more in recuperating, no, our people seldom shake more than a week, and not often so long as that. The disease yields readily to medical treatment, and is seldom of long duration. It is what is called the tertian form of disease. The diseases incident to children everywhere, are found here, though to no greater extent than at other points, no difference being noted except in scarlet fever which seems to be less severe.

One peculiarity of the Pacific Coast seems to be the great number of insane people. It seems to be an established fact, that the ratio of insane people is larger than it is east of the Rocky Mountains. The rapidity with which fortunes are made and lost, may have some thing to do with this peculiarity, for many of the "unfortunates" become so from other causes than ordinary disease. There are no epidemics here. The opening of a new country, the turning up of new soils and the decaying vegetable matter, incident to it, will always bring more or less malarious diseases, but the proportion of that kind of complaints is no greater here than in any other new country.

WEBFOOT.

The Oshkosh Times says, and its language is plain: "Bob Johnson, of the Wausau Central Wisconsin, recently drew a harness in a raffle, and now all his neighbors lock their stables for fear he will steal a horse."

The Fond du Lac Commonwealth scarcely credits the rumor that Gov. Washburn is to have the La Crosse postoffice.

Three persons were baptised in the Baraboo river at Reedsburg a week ago.

THE EAST SHORE.

LUMBER PRODUCT OF THE EAST SHORE OF LAKE MICHIGAN FOR THE PRESENT SEASON.

A Total of 893,000,000 Feet Put In—Muskegon County Produces 535,000,000 Feet of Logs—Operations of the Muskegon Boom Company.

The total amount of lumber as given below, cut during the past season, in the different counties on the East Shore of Lake Michigan, is from the figures furnished the Muskegon News and Reporter by parties in the localities named:

Muskegon County.....	327,000,000
Manistee do	205,000,000
Mason do	126,000,000
Oceana do	20,000,000
Ottawa do	115,000,000
Grand Traverse, St. Joseph, etc.....	100,000,000
Total, East Shore.....	893,000,000

As to the amount of pickets, lath, shingles, square timber, railroad ties, bark, wood, &c. from the different counties except Muskegon, we have no definite figures as yet to give.

EAST SHORE COMMERCE.—The annual report of Col. Mansfield of the engineer corps, U. S. A., in charge of the harbor improvements of the eastern shore of Lake Michigan, shows the year's commerce of each harbor on the shore and the total amount of government expenditures up to date, viz.:

	Tonnage.	Gov. Expenditures
Muskegon	46,386	\$104,100
Grand Haven	443,114	284,750
Frankfort	53,348	188,155
Manistee	337,000	119,000
Ludington	86,104	156,000
Pontwater	48,477	102,738
White River	111,744	169,000
Black Lake	31,340	163,651
Saugatuck	70,120	85,000
South Haven	22,780	110,000
St. Joseph	88,523	199,139
Charlevoix	115,000	

MUSKEGON COUNTY.

MUSKEGON LOGS.—The following is a statement of the amount of logs rafted and delivered by the Muskegon Boom Co., up to October 20, 1874, as shown by the company's books. The total amount for the

season will be a little over 250 000,-000 feet.

Log owners.	Feet.
Rutherford & Co.....	10,528,564
Boyce.....	11,900,911
vis & Co.....	4,941,434
Ryerson, Hills & Co., Upper Mill, 6,921,-466.....	
Ryerson, Hills & Co., Lower Mill, 4,331,-344.....	11,252,816
Chapin & Foss.....	3,300,965
Mason Lumber Co.....	14,947,149
W. H. Bigelow & Co.....	9,114,870
G. R. Roberts & Hull.....	15,456,887
Hackley & Sons.....	14,010,556
Reidler Manufacturing Co.....	15,46,876
Hackley & McGordon.....	13,557,744
Swan, White & Smith.....	9,850,967
Wm. Glue & Co.....	12,349,168
C. J. Hamilton & Co.....	8,759,725
T. W. Palmer & Co.....	2,145,546
Esau Torrant.....	2,704,506
A. V. Mann & Co.....	9,457,113
Kelley, Wood & Co.....	9,713,452
Culbert Bros.....	3,977,583
A. M. Allen & Co.....	4,392,959
Browne, Nelson & Co.....	8,760,947
Torrent & Arms.....	15,831,564
Storrs, McDougall & Co.....	8,294,355
E. Eldred & Co.....	10,756,112
B. Andry, Vallicott & Co.....	5,758,390
Amount delivered by B. Co., since Oct. 10.....	13,009,000
	250,091,793

Muskegon county cut and shipped in 1874, in addition to the number of feet of boards given above, the following :

Lath, pes.....	200,000,000
Shingles.....	18,000,000
Square Timber.....	15,000,000
Pickets, pes.....	175,000
Railroad Ties.....	300,000
Tan Bark, cords.....	125,000
Wood, cords.....	15,000

The quantity of logs and lumber left over, is comparatively small, and will not exceed 20,000,000 feet for Muskegon and 8,000,000 for the balance of the county. A large portion of this lumber will be shipped south and east by rail during the winter.

The aggregate supply, as given in this article for Muskegon county, is as follows :

Muskegon.....	250,000,000
White Lake.....	62,000,000
Black Lake, etc.....	15,000,000
Total.....	327,000,000

The Muskegon Boom Company have rafted during the past few years the following number of feet of logs :

	Feet.
1869.....	282,330,555
1870.....	201,429,672
1871.....	261,104,390
1872.....	343,481,400
1873.....	381,342,609
1874.....	250,000,000

The following figures show the amount of logs that will be put in during the coming winter by the parties named, but it is impossible as yet to give the full amount contracted to be put afloat next spring, as many of our manufacturers and owners of pine will increase their stock considerably before the middle of next month, while on many others we have been unable to get the accurate amount of feet of logs they have already, or expect to have under contract before the close of next month. From the very best authority that can be had, we are confident that with plenty of snow, and favorable weather otherwise for logging, Muskegon River and tributaries will float upon its waters, next spring, at least 400,000,000 feet of logs, while about 30,000,000 feet more will be shipped by rail, etc., to this point to be sawed.

White River and its tributaries will swell the amount, for Muskegon county, to over 85,000,000 feet more, while Black Lake and a large number of small mills not enumerated here, may safely be put down for not less than 20,000,000 feet more—making a grand total crop of logs for 1875 in the County of Muskegon of 535,000,-000 feet—35,000,000 feet of lumber more than the whole "State of Saginaw with its seven counties," have manufactured during the past season. It is evident from these figures that lumber manufacturers do not care a straw for the little money that has been realized from the business during the past three years.

The Baraboo Republic, since it came into the hands of Mr. J. I. Weirich, has become one of the best papers in the West. Its local department is well kept up. Its editorials are thoughtful and well expressed. Its republicanism is dignified and independent. It is in every way an honor to Sauk county and the Baraboo valley, or rather it is an honor to the press of Wisconsin.

WISCONSIN NOTES.

Oshkosh claims to be the banner lumber to win this winter.

Beaver Dam, in spite of its name, is hoping for a female seminary.

Sauk is still the banner county for promptness in paying taxes.

The state boarding house at Waupun numbers 243 inmates.

A lynx weighing over 30 pounds was trapped near Oconto, last week.

Two murder cases are on the Jefferson county circuit court docket.

Watertown's iron bridge over Rock river is finished and accepted by the city.

The Kenosha Telegraph is stirring up the question of procuring a steam fire engine.

Lake Superior trout and whitefish come down to Eau Claire by the sleigh load.

Some delinquent subscriber steals wood from the Fort Howard Monitor office.

Waukesha will build a stone or iron bridge, to replace the old one near the depot.

The Grampus Club of Baraboo will "entertain" at the Western on the evening of the 19th.

The Webster Union Railroad Company are building a bridge over Fox river near Burlington.

Mr. Duncan Cameron, of Vernon, was seriously injured by a fall from a load of hay last Saturday.

Mr. T. J. Hooper trapped an owl, measuring five feet from tip to tip of its wings, near Palmyra recently.

Fourteen lumber and shingle mills are to be built on the line of the Wisconsin Central Railroad, the coming season.

There are in the state fish hatching-house at Anamosa about 250,000 white-fish eggs, and 10,000 brook trout.

Mr. C. D. B. Mills, whose series of parlor lectures lately instructed Milwaukee society, will speak in Baraboo on the 13th.

Reedsburg has cherished the sensation of a "wild hog" until young Mr. Meckler surrounded it in a haystack and shot it the other day.

The friendly rivalry of some of Wisconsin's interior towns as to which shall pay its taxes first, should be a lesson for Milwaukee.

Krok is the name of a new postoffice, three miles west of Kewaunee, on the Green Bay Road, and Wyta Stransky is the postmaster.

Joseph Whitmore cut eleven cords of wood out of one white oak tree, recently, near Spring Prairie corners—quite a tree for Wisconsin.

Dr. Elmendorf, of Racine, gave a good lecture on "The Women of Shakespeare" to an appreciative Kenosha audience, Monday evening.

H. Spice, of Perch River, Jefferson county, has sold a five year old horse sired by DeWolf's Glencoe Goldust to an Eastern man for \$13,000.

A young Sprata gent, quondam of Watertown, was arrested in the Sparta post office lately, with \$1,300 counterfit money on his person.

Mr. J. N. Farwell, the big Chicago dry goods merchant, addressed the business men of Baraboo under the auspices of the Presbyterian church last evening.

Sussex boasts of six ladies whose combined weight is eleven hundred and ninety-seven pounds. The heaviest of the six weighs two hundred and forty-five pounds, and the lightest, one hundred and fifty-seven. Stand from under.

STURGEON BAY.

THE REGION DESCRIBED FROM THE LUMBERMAN'S POINT OF VIEW.

Progress of the Sturgeon Bay and Lake Michigan Canal—The Village and its Sur- roundings—Its Institutions and Industries.

In company with an Esculapian friend of ours, who drives a good team, who knows everybody, and whose universal jolly temper makes him good company, we made a trip the other day to the—as we anticipated—somewhat Arctic-like region known as Sturgeon Bay, situated away up in the northern part of this State, and too near the North Pole for comfort in the winter. The most feasible land route leading to this isolated hamlet, is across the peninsula from Ahnapee, a distance of 24 miles, which is like the pilgrimage of the Israelites of old, resulting in finding the “promised land” at last. In the summer, if a person is not in a hurry, and wishes an enjoyable pleasure trip, he can take one of Goodrich’s fine lake steamers for this place.

Although the country around Sturgeon Bay has been but recently settled, comparatively, it exhibits a state of thrift not excelled by any part of this northern region. Considering the heavy timber and difficulties in making roads, its progress has been remarkable. Wide expanse of clearing, comfortable and handsome houses, good barns and fences, and a general appearance of thrift everywhere, are the prominent features along the road between Ahnapee and Sturgeon Bay. At Clay Banks,

situated on the lake shore, about half way between these two places, we found a steam saw mill, with an active crew of men busily at work, under the management of “Jim” Davidson, turning out lumber and shingles at a lively rate. This establishment is owned by Messrs. Bates & Hoag, the latter gentleman being the resident partner. For a number of miles on this side of Sturgeon Bay, we had an opportunity of seeing black, charred remains of the fallen timber victimized by the great fire of 1872. Nevertheless, this land is also rapidly being cleared and settled up, and in a few years no sign will be left to mark the scene of the dreadful holocaust.

The village is handsomely located on a generally level plateau, some ten feet above Sturgeon Bay, which at this point is half a mile in width. The streets are broad and straight, and the business blocks are large and commodious, the merchants carrying heavy stocks of goods. Nearly all the buildings are new and well coated with white paint. Sturgeon Bay, from which the town derives its name, is a body of water tributary to Green Bay, extending inland about six miles, and of an average width of about one half mile, is one of the most beautiful sheets of water imaginable. Many tourists have already spent the summer months here, and all unite in voting it the most delightful summer resort in Wisconsin. The village, which is situated on the north side of the bay, is reached by the traveler by means of a steam ferry boat, which plies a thriving business, we are told. In years past

the town was chiefly known through its large lumbering establishments, but the rapidly diminishing supply of pine timber has reduced the number of mills to one—that owned by A. W. Lawrence & Co. This mill is supplied with the latest improved machinery, and has a capacity for sawing about 11,000,000 feet of lumber per season. At present it is “shut down.” We understand that the logs are rafted up from the towns “down the bay” by the company’s steam tug, the *W. J. Henry*. The village has two churches, Methodist and Moravian, both being liberally sustained; a public school of three departments; three hotels, where the weary traveler can get a good square meal; sample rooms in abundance; a large grist mill, and two breweries. Although a town of no less than one thousand inhabitants, with a village charter and a brass band, it is a perfect Arcadia in simplicity. Twenty miles away from this wicked world, neither rats nor burglars infest Sturgeon Bay. Her people retire to rest with open doors, and awake to find their heads still on, and not a spoon out of place; but its morality can best be attested by the statement that the little village jail has not an occupant once in six months. A lodge of Good Templars is sustained, and we understand that a lodge of the order of K. I. B., an anti-social drinking association, is soon to be established. In fact it is one of those backwoods towns that is making sturdy blows for moral improvement. A temperance ticket will be put in the field, at the coming spring election, and its advocates fondly antici-

pate its triumphant success. Door County contains two newspapers, both located at Sturgeon Bay—the *Advocate* and *Expositor*. The *Advocate*, edited by Harry Harris, has the reputation of being the neatest, liveliest, and most reliable country sheet in Northeastern Wisconsin. The *Expositor* is a sort of nondescript journal, run by Deacon Pinney.

The Sturgeon Bay and Lake Michigan canal is, perhaps, one of the greatest public works ever undertaken in the state. The idea of excavating a channel of sufficient depth and width to admit of the passage of our largest lake vessels, through a neck of land no less than a mile in width, and through a dense forest of underbrush, in order to expedite the commercial traffic between Chicago and Milwaukee with the immense lumbering country on the Green Bay shore, may appear to some as a fool-hardy undertaking; but when we realize that the distance by water is shortened no less than one hundred and fifty miles, around the most stormy and to-be-feared coast on Lake Michigan, we can but desire its immediate consummation. The canal is being constructed by a company, which has a grant from Congress, through the State of Wisconsin, of 200,000 acres of public land, to aid in its construction. During the past season, owing to the financial stringency, but little work was accomplished, but next season, it is anticipated, will witness its near completion. To the Hon. Joseph Harris, who has labored incessantly day and night, at Washington, for the past ten years, is due the honor of securing this great bene-

fit to the commercial interests and the surrounding country. The canal is situated at the head of Sturgeon Bay, about two miles from the village. There is no house or settlement in the immediate vicinity of the works, it appearing to be cut through a dense tamarack swamp. The stumps and logs have been cleared off in "the cut," and about one third of the distance made navigable. On the lake end, the government is constructing a capacious harbor of refuge.

The pine timber appears to be very near exhausted in the vicinity of Sturgeon Bay, and we think, from indications, that it has seen its best lumbering days.

DIFFICULTY OF BANKING LOGS THIS SEASON.

The *Lumbermen's Gazette* says:— Never before was the work of banking logs under difficulties pressed with such determination as it is just now in the Michigan and other western lumber regions. The snow fall has been scanty, and what has come has been so light and dry that it would not make good roads. The season is so far spent that all hope of sufficient snow to make good hauling has about disappeared, and the loggers have been driven to their wits' end to devise means for getting the large amount of cut timber to the running streams. In some localities of Michigan, sleds have been fitted with large water tanks, after the manner of street sprinkling cart, for the purpose of wetting down the dry snow on the roads, so that it would pack and make good hauling.

It is of course impossible now to

say what the precise effect of this condition of affairs will be upon the log product. The season has been a good one for cutting and skidding, and it is quite possible that about all the logs cut will be got to the streams in some way, however much trouble it may cost. Certainly they will, if the most energetic efforts, and a fertility of resource not heretofore called into play in this business, can effect it. On the other hand, should there be an early breaking up, or a disappearance of the snow, a great many logs would be left on the skids. Not a day, scarcely an hour, will be allowed to pass unimproved from this time till the snow goes, and the extent of the work done will therefore depend on the continuance of steady winter weather.

A correspondent of the *Grand Haven Herald* says: We have seen an oak near Brazos river in Texas of which two enormous branches, stretching in opposite directions, each extended for one hundred feet from the trunk of the tree. We think many trees covering half an acre can be found all along the Gulf coast. The immense trunk limbs are often covered on their upper surface with mosses, ferns and even grasses, protected from the hot sun not so much by the leaves, which are small, but by the masses of Spanish moss which trail downward from every branch and twig, giving the tree a strange funereal appearance.

During the season of 1874, 189,904,466 feet of logs were scaled in the Stillwater district of Minnesota.

PROTESTS AGAINST RECIPROCITY

WHAT AMERICAN LUMBERMEN THINK OF IT.

Report of the Secretary of the Anti-Reciprocity Lumberman's Association—A Spirited Document from Mr. W. G. Stebbins.

About the middle of last March Sir Edward Thornton and George Brown of Canada were made "Joint Plenipotentiaries" of the British Government, fully empowered to negotiate a reciprocity treaty. Before that time there had been no public knowledge in our country of the wish or intent of that government to propose such a measure, and no public or popular expression on our part of a want of it. On the 27th of April a "memorandum" of our commercial relations with the British Provinces near us—a pamphlet by these foreign Ministers, and a plea for reciprocity—was addressed to our secretary of state, and "confidentially" sent, soon after, to members of the senate and house. From May 16th to June 8th articles in favor of the treaty appeared in a score of daily newspapers, and long associated press telegrams on the subject went over the land from Washington. These and the newspaper articles were collected and republished on a sheet and again sent abroad in that form. On the 17th of June the draft of the treaty, as proposed and prepared by these British Ministers, was sent from the state department to the President, and laid before the senate for their action just before the close of their session last June.

Rapid and secret work on the

start, wide and shrewd manipulation of the newspapers to create favorable public opinion, and prompt submission of the treaty to the senate while that public opinion would be, if ever, at its flood-tide;—all to induce that body to negotiate a measure, irrevocable, save by war, for twenty-five years, decreasing our revenue over \$150,000,000, and to be finished with the same swift secrecy with which it was begun!

Fortunately, the senate of the United States, had too much wisdom, patriotism and reverence for their constitutional obligations to conclude this grave matter in such secret haste, and are therefore saved the penalty of repentance at their leisure.

WHY ENGLAND WANTS THE TREATY.

"Meantime, in the wrath of Pennsylvania manufacturers at the probable introduction of what they consider to be the thin end of the wedge, known as reciprocity with Canada, the thick end of which is free trade, English manufacturers in general and Sheffield manufacturers in particular, should see that something is transpiring worthy of their earnest attention. * * * *"

England has been emphatically assured by the Canadian Prime Minister, the Canadian Plenipotentiary, and, lastly and most strongly, by Lord Dufferin, in his speech at Chicago, that Canada will not consent to a differential arrangement, to the prejudice of the mother country. In other words, what the United States is permitted to import in Canada at specific duty or free of duty, that also it will be arranged may be imported from the United Kingdom on

precisely the same terms. Well, then, shall not our iron and hardware manufacturers go up and possess the land?"—*Sheffield Telegraph*, (England.)

"We do not see the slightest hope that we can admit United States manufactures free of duty and yet impose a duty on those of Great Britain."—*Hamilton Spectator* (Ontario.)

In London, (England,) Nov. 27th, Lord Derby assured the delegates from fifty-two Chambers of Commerce that no differential duties against them and in our favor would follow the treaty.

"A few furnaces in Canada, and as many in Nova Scotia, may be made to cover hundreds of thousands of British pigs; a dozen steel and iron mills in like manner covering hundreds of thousands of tons of rails. A very moderate number of paper mills may be made to cover 100,000 reams of paper. Machinery of every kind, coming out in parts ready to be put together in Canada, must be here received as being of Canadian manufacture. That this must certainly be so will readily be seen, it being clear that all such commodities, 'being the growth, produce or manufacture of Canada or the United States,' are to be admitted free of duty. That a man may become possessed of an axe he must have two pieces, one of iron and another of wood. Until they are brought together he has no axe. The man who brings them together claims to be manufacturer of the axe, as the man who brings together its several parts, wood and iron, may properly claim

to be manufacturer of the machinery of a cotton mill."—*H. C. Carey. Letter to President Grant.*

"Canada wool is, by the terms of the treaty, to be admitted to our country free of all duty. Wool grown all over the world would, under such a treaty, be smuggled through Canada in immense quantities. The wools produced in England and Ireland are so like those produced in Canada that even an expert could not detect them.

"The treaty provides that woollen rags shall come to us free of duty, thus furnishing unlimited material for shoddy goods. Satinets of wool and cotton and tweeds of wool solely are free.

"Tweeds, by Canada custom, embrace under one general name, fancy cassimeres and a variety of styles of woollen goods. Under this general term, English cassimeres would be smuggled in boundless quantities. Felting to cover boilers is also free. Under these various divisions of material and manufactured woollen goods, not only the growing of wool, but the manufacturing, would so suffer as to virtually destroy both as great branches of national industry. The effect of the treaty would be to establish free trade in wool and woollen goods not only between the Dominion, of Canada but between England and the United States"—*Protest of National Association of Wool Growers of the United States.*

WHY CANADA WANTS THIS TREATY.

They can speak for themselves. "Canada, so situated (with reciprocity) that she will have all the advantages of being a state in the

American Union, and all the advantages of British connection, without any of the disadvantages of either country, will be in a most happy position. Enjoying free access to the two best markets in the world, without any of their burdens to bear, will make Canada about the best country to emigrate to on the face of the earth."—*Ontario Reformer*.

"The crop of wheat in the United States is officially estimated at 240,000,000 bushels. It is, therefore, very evident that we could not influence in the least degree the market price of wheat in the United States, and that if we send our wheat there we lose the duty. The proportion of our surplus of horses, cattle, sheep, and wool to the amount they consume is so very small that it is equally plain that we cannot influence the price in their market, and that we lose the duty. The Americans consumed last year nearly 40,000,000 bushels of barley of which we gave about one-tenth. We think that our farmers lose the duty on barley, or at least the greater part of it. The American people north of the Ohio consume not less than 8,000,000,000 feet of pine lumber per annum, of which we gave them not to exceed 700,000,000 in any one year, or about one-eleventh. The city of Chicago alone annually receives more lumber than we export to all countries. We supply a large proportion of the peas consumed in the United States, and we think that the consumer of them pays the duty, but this is the only natural product whether from the farm, forest, mine, or sea, which we export to the United States in such

quantities as will enable us to compel the consumer to pay the duty."—*Ibid*.

"The best and greatest commercial blessing that Heaven could send. It means \$5 on a cow, \$25 on a horse, \$2 on a hog, 25 cents on a turkey, 12 cents on a chicken, \$2 on a ton of hay, 15 cents on barley, and 25 cents on wheat. It means the opening of the largest and best ship building business that Canada ever saw, and the resurrection of old Quebec. It means building schooners and barges at every port on Lakes Erie and Ontario, and good wages for ships and sailors; the highest price for everything the (Dominion) farmer sells, and the lowest price for all of the goods he buys!"—*Hon. Malcom Cameron to Toronto Globe*.

"I am more convinced now than ever that in the port of Quebec must eventually centre the whole commerce of the country. Not merely has Quebec the convenient situation and the vast area necessary for the accommodation of all our own transport but also for that of the long tier of the Northern United States, which stretch along our border, We are now making great efforts to extend the commercial advantages we possess by the renewal of the reciprocity treaty with our neighbor.

"While it is of course impossible that all can gain every advantage they each desire in the matter, I am perfectly satisfied that Quebec will reap enormous advantages over all other places under the proposed measure, which will no doubt greatly extend our trade relations on both

sides of the line."—*Speech of Hon. A. Mackenzie, Dominion Prime Minister.*

"Here are extracts from the testimony of Mr. W. E. Sanford, of Sanford, Vail & Bickley, wholesale clothiers, Hamilton: 'We employ a capital of over \$500,000. Our employees number over one thousand. We can obtain as much labor in Canada as we wish; if we had reciprocity or free trade with the United States we would be pleased, as we are confident we would be enabled to clean out our warehouse in sixty days.' Mr. Sanford is evidently not afraid of being ruined by a market of forty million people, being thrown open to his firm, nor is Mr. E. Gurney, stove founder, Toronto, who says: 'If the tariff arrangement were reciprocal, we could enter their (the American) territory.'"—*Halifax Chronicle.*

The *Ottawa Citizen*, November 27, says that Mr. Rathbone, of Mill Point, a leading lumberman, spoke to a meeting of lumbermen in Ottawa, and impressed on them the importance of the treaty to their trade and their country.

WHO DO NOT WANT A "RECIPROCITY TREATY."

The industrial producers of our country do not want it. While this scheme, so suddenly brought out by interested foreigners, has not been a subject of wide popular discussion, in newspapers or otherwise, the associations which represent our leading industries, and speak for important interests of the farm and the factory, have made their protests against it. Eminent and thoughtful citizens, and a chain of able newspapers, reaching from Minneapolis to Boston, have

given warning, and fact, and argument, and from these, brief extracts, touching different aspects of this grave matter, are presented.

NATIONAL WOOL GROWER'S ASSOCIATION.

"The National Wool Grower's Association, through its executive committee, protests against the ratification of any treaty between our country and the Dominion of Canada which shall in any way abridge the powers of Congress to regulate and alter our tariff laws, as may from time to time appear to be conducive to our national interests. * * *

"The treaty now before the Senate of the United States binds the country for twenty-one years, and three years after that period has expired, which is provided for notice—making in all twenty-four years—in bonds that cannot be broken, except by war between the parties.

"No treaty can be drawn, even by the wisest statesman that ever lived, that would be safe for such a growing, changing, and progressive nation as ours, to accept as unchangeable for twenty-four years. There is no safety in thus binding the men, who, coming after us, will be charged with the governing and supplying the means of defraying the expenses of so great a nation in peace, and in the wars that all nations are sometimes forced to maintain.

"But of this treaty it cannot be said that it is wise in its provision for even the present time. Its ratification and enforcement would be greatly injurious to many branches of our national industries, and it would certainly materially lessen our productions of wool.

"Canada wool is, by the terms of the treaty, to be admitted to our country free of all duty. Wool grown all over the world would, under such a treaty, be smuggled through Canada in immense quantities. The wools produced in England and Ireland are so like those produced in Canada, that even an expert could not detect them. * * *

"And finally, we insist with full confidence in the truth of our position, that every real gain that is enumerated as secured to us by the proposed treaty, is either now ours by treaty, or is freely granted as the result of policy by the Canadian authorities, and that there is no necessity of a treaty to cause the Canadians to allow our vessels in time of peace to pass from lake to lake, through their canals, upon the payment of tolls, for without the tolls from our vessels such canals would be of but little value and that ordinary legislation is entirely adequate to determine, and from time to time change any special relations with the people of the Dominion, that grow out of the fact of the two countries being so intimately connected by reason of their joining each other by a long line of boundary.

"The industries of our country are so intimately connected, that no one great leading branch can be struck down, without serious loss to all others. We, therefore, call upon men engaged in making lumber, the men engaged in making salt; the men engaged in building ships and navigating them; the men engaged in farming; the men engaged in manufacturing; in short, we call upon all

men who help pay our heavy taxes, and who are suffering from our vicious financial policy, and who intend to insist upon sustaining the national honor, by the payment of our debts—upon all who are opposed to opening a wide door for the free entrance of smugglers, and binding ourselves and our children in bonds that can only be loosened for a period of twenty-four years, except by war or the consent of our commercial rival, to join us in making earnest protest, before it is too late, against ratification of this measure most injurious to the vital interests of our whole country." HENRY S. RANDALL,

President National Wool Grower's Association.

December 1, 1874.

WESTERN FARMERS—REVENUE.

From the *Chicago Inter-Ocean* we condense as follows:

The New England states produce, on an average, about one-third of a bushel of wheat per head, and need $5\frac{3}{4}$ bushels. Their deficit is 19,000,000 bushels yearly, which is had from the west and from Canada almost wholly. In four years under the former reciprocity treaty—1862-'5—the imports to New England from Canada were 31,754,663 bushels of wheat. In four years—1870-'73—since the repeal of reciprocity, the same imports were 6,260,745 bushels, or less by 25,481,818 bushels than in the same time before its repeal. Why? Because under reciprocity Canadians paid no duty, and could push in 25,000,000 extra bushels, and keep out the western farmer from his market for so much, but when they had a duty of 20 cents in gold per

bushel to pay, the west came up on a more equal footing and gained a larger market and one better than any across the ocean. Meanwhile New England was not the gainer in price, and Canada paid the duty, as our custom house collectors say. Take in New York with Boston, and they both open a home market for 30,000,000 bushels of wheat yearly. Shall the Canadian farmer, paying no taxes and bearing no burthens to sustain our government, share all our privileges, and thus compel the western wheat grower to a disadvantageous competition? The figures given are official, and flour is reduced to wheat. This word, from the *Chicago Journal of Commerce*, fitly comes in.

"But there are more elements of the problem quite as important as those already stated. Industry is generally depressed; national income from tariff and internal taxes has suffered a considerable decrease—to the amount of \$24,985,689 customs, and \$11,315,529, internal revenue, says Treasurer Spinner's forthcoming report—and there is talk of raising revenue to supply the deficit by resorting to more objects of taxation. Under such circumstances, it would be especially improvident and absurd to make a free gift to the Canadians of the millions of dollars they are in the habit of paying to the United States Government for the privileges of the American market. In that case Western farmers would have to bear a part of the additional burden of taxation, already heavy enough, as everybody feels in his bones."

In 1873 the duties on leading Canadian farm products imported by us

were \$3,369,855—taxes justly paid by them to our Government for the privilege of coming to our market, but of which reciprocity would relieve them. In 1868 our collectors of customs at Plattsburg, Cleveland, Oswego, and Buffalo, gave it as their opinion that Canadians paid the duties on farm products, and our consumers gained nothing, in lower prices, by their admission.

WOOL MANUFACTURERS—NATION ASSOCIATION.

"That we will welcome the Canadians to a free participation in the advantages of our markets when they are prepared to be partakers of our burdens and defenders of our common nationality, as thereby we may extend the line of our protective defences, and close the postern through which British goods now surreptitiously enter our territory.

"That those who desire true free trade with Canada, such as is enjoyed by the different states of a common country, will find their hopes frustrated by a treaty which shall permit the Canadians to sell their natural products in the dearest market in the world, (the United States), while buying their chief manufactures in the cheapest, (England.)"—*From Resolutions signed at Boston, by J. Wiley Edmunds, president; John L. Hayes, secretary.*

SMUGGLING MADE EASY.

This so-called "reciprocity treaty" might be more fitly called "A treaty to aid and encourage illicit trade." Under the former reciprocity treaty, smuggling was regularly, extensively, and systematically practiced.

Says J. F. Potter, Consul General

of our Government at Montreal, writing to the Treasury Department at Washington, under date of November 2, 1865:

"I also respectfully ask your attention to the fact that under the guise of free goods, large amounts of dutiable goods are exported into the United States from this province. The oath that the goods are the product of Canada, is made in the usual form, and it is not possible, in many cases, to prove the contrary.

All this will be repeated on a far larger scale, should this, or any reciprocity treaty, be concluded. The *Industrial Bulletin* well says:

"If we are to have free trade with England, we would prefer to have it pure and simple, open and direct, instead of going about to reach it through stinking by-ways, tainted with perjury and reeking with corruption."

SHIP-BUILDERS.

"The treaty of reciprocity now proposed, is understood to embrace the admission of Canadian vessels to free American registry, and the full enjoyment of our coasting and lake trade. Thus the ship-building and commercial interest of the United States, reviving so prosperously of late, and just recovering from the terrible blows dealt by British-built cruisers during the war, are again to be struck down by giving advantages hitherto undreamed of to the ships of the very power that inflicted the injury."—*Hon. J. G. Blaine, M. C.*

"The proposal that we should practically open the vast coasting trade of our long sea-coast and lakes (worth thirty-fold more than our for-

eign commerce) to Canadian vessels, is an amazing sample of reciprocity. The offer of equal navigation of the Canadian canals in return for the use of our much longer and more important like water courses, is its fit companion."—*National Lumbermen's Memorial.*

RUIN OUR LEADING INDUSTRIES.

"The proposed Canadian reciprocity treaty is exciting decided opposition in all parts of the country. It is not strange that it should excite so much opposition on this side of the line. Its ratification would nearly, if not entirely, ruin some of our leading industries.—*Buffalo Commercial Advertiser.*

"The pending Canadian treaty with our country, falsely called by the name 'reciprocity,' is giving a high-priced market of forty millions of people for a low-priced market of only four millions of people, and this four millions of people have the right to buy in the cheapest markets in the world, which is not ours. 'Tis the reciprocity of the thief, who leaves his old coat, worth less than four dollars, and takes one without the owner's (the people's) consent, worth forty times as much. The times demand that our market must be taken out of the 'market' for the future."—*G. W. Dean, New York.*

HOW IS THIS?

"As a proof of the movements in the direction of the reciprocity negotiations, let me cite to a very elaborate Associated Press dispatch from Washington, under date of the 12th inst., to an editorial in the *Tribune* of the 15th: to one in the *World* of the 9th; to an editorial in the *Times*

of the 16th; of the *Chicago Post and Mail*, the 13th; of the *Tribune* thereof, same date, and to articles in the *Evening Post*, the *Springfield Republican* and other papers. Mr. Brown, or some one for him, understands the way to influence the American public, and Sir Edward Thornton, his host, appears to have well selected the means of reaching the American Senate. A series of very quiet *petite* dinners have been in progress at the British embassy. To these attractive affairs Senators and other public men are invited. They have courses of Brown and reciprocity mingled with the soups, joints, and entrees."—*Boston Journal of Commerce*, May 26, 1874, *Washington Letter*.

WHAT OF FREE TRADE WITH ENGLAND.

"Our friends beyond the border, being moved thereto by the love they bear us, and their earnest desire of cordial relations, propose that both parties shall "let down the bars" and admit free of duty, not alone the raw products of field, forest, mine and river, but also many manufactured articles, the product of skilled labor employed in mills, factories and workshops. This the friends of the scheme allege, would open to New England and other sections, prominent in manufactures, a new and wider market, and to Canada, where manufactures are in their infancy, but where raw material of various kinds abounds, a new and more extensive market for these products.

* * * * *

"Admitting, for arguments sake, that reciprocity, even to the extent proposed and desired by Canada, is a

good thing by itself, how does it look with this adjunct of Canadian reciprocity with England?

"Reciprocity over our northern border, of the kind proposed, is free trade to all intents and purposes. The same between Canada and England is free trade as well, and, so far as the sale of our products in the Canadian market is concerned, the result would be merely to bring them into competition with those of the cheap labor of England."—*Commercial Bulletin*, Boston.

IN A NUTSHELL.

"There is no such thing as a reciprocity treaty with the Dominion. Just what we should be glad to sell them they buy in the cheap market of Europe, and what they have a surplus to sell we have also."—*Hon. S. F. Hersey, Bangor, Maine*.

"Free trade between the United States and Canada cannot be called reciprocity without uttering a libel on truth. What is reciprocity but equal mutual rights or benefits to be yielded or enjoyed? How is it possible to gain such an even exchange by abolishing all restrictions on commerce between the two countries? There is a fundamental inequality of circumstances."—*Chicago Journal of Commerce*.

"All the profits on our exports and imports to and from Canada, and on our fisheries on their sea coasts, are of much less value to us as a nation, than the payment, expenditure and accumulation in our own land of even half the wages of our stalwart army of lumbermen." (Lumbermen employed, over 200,000; yearly wages, \$100,000,000; farmers get \$35,000,000;

manufacturers and mechanics at home, \$23,000,000 yearly.)—*Memorial of National Lumbermen's Association.*

Any fair arrangements for mutual benefit in trade or transit with our Canadian neighbors, or any people near or distant, may be wise and well; but any reciprocity treaty must be liable to violations of our Constitution, or of just obligation, by treaty or otherwise, to other nations or to our own citizens. For instance, if we begin such a treaty with the Sandwich Islands, what shall our own citizens in the South say of sugar made by the cheap labor of the tropics, coming here free of duty? If that trouble be put aside, how many others may come up to vex us? Far better steer clear of all such measures.

UNCONSTITUTIONAL.

"As there is an express provision (Article 1, section 7), of the United States Constitution, under which all revenue measures must originate in the House of Representatives, it is a matter of grave question whether the Senate has rightful power to conclude a treaty which would diminish our revenue some \$12,000,000 yearly for twenty-five years. It may be, that august body declined to consummate this measure last summer, in part, from a wise and laudable desire not to transcend the limits of their high prerogative."—*National Lumbermen's Association.*

"If the treaty-making power justifies such negotiations as our State Department has conducted, and the Senate has been asked to approve, then a new peril is disclosed to the people of the United States. They

don't possess the right of self-government. Their control of the finances, trade, and industry of the country, may be taken away from them for years, or forever. If the President and Senate may establish free trade with Canada for twenty-one years, and three years longer, they may establish free trade with England for a hundred years. The right of the people to freely change their laws would thus be wholly lost. The nation would be subjected to the will of a foreign power, from which it could not escape, except by such a breach of faith as is recognized as a cause of war."—*Industrial Bulletin.*

VIOLATED TREATIES WITH OTHER NATIONS.

"A grave objection comes up, seriously affecting our commercial treaties and tariff arrangements with all the leading nations of the world. In forty-nine treaties with foreign powers, including the great commercial nations of Europe, we agree to charge them no higher duties on their productions than are levied on the like products of the most favored nations, and also agree that when we reduce duties to others, we will make a like reduction to them. There can be no possible reason why we should be asked to depart from or violate such agreements for Canada, or any foreign people. Such departure were bad faith, ending in confusion and trouble.

"Not long ago the Russian minister laid before our Department of State the fact that we admitted hemp, produced in a British province, (India), at a duty of \$25 per ton, while Russian hemp paid \$40.

"The matter was examined, the

surplus duty paid back to Russia, and her hemp admitted at \$25 per ton duty.

"We have too high respect for the sagacity, patriotism, and law-abiding spirit of the Senate and House of Representatives to suppose that the one will consent to, or the other in any way approve, a treaty, the consummation of which would violate sacred constitutional obligations and binding agreements with great commercial powers, open the way for constant and just complaints from foreign nations, and end in shameful and disastrous readjustments of our commercial relations, or in serious and, perhaps, warlike troubles.

"If it is said that no such trouble grew out of our reciprocity with Canada, from 1854 to 1866, we reply that nations have grown more vigilant with the vast growth and vital importance of their industries and trade, and that it is far better to avoid than to blindly follow a bad and dangerous precedent."—*National Association of Lumbermen.*

MEMORANDUM OF BRITISH "JOINT PLENI-POTENTIARIES."—COMMENTS THEREON.

On the 27th of April last, a "Memorandum on the Commercial Relations, past and present, of the British North American Provinces with the United States of America," signed by Edward Thornton and George Brown, was sent to the Secretary of State for his consideration, and afterwards laid before members of Congress, confidentially, in pamphlet form. It is a plea for the benefits of reciprocity—more especially to the United States—of which we had remained in blissful ignorance until

better informed by these distinguished gentlemen, acting with "full powers" from a foreign government to negotiate a reciprocity treaty with our own.

Let us look at some of their statements. They use the United States reports, and we will follow and use their figures, and find that, as we simplify and rearrange them, they prove a rapid decrease of the balance of trade in our favor under reciprocity. Let us take their periods for summing up result:

1st. From 1821 to 1852, twelve years.	
Total exports to Canada	\$31,481,328
Total imports from Canada.....	7,584,559
Total imports and exports.....	\$39,165,885

Balance of this trade in favor of the United States, or excess of exports over imports, \$23,796,767, or 62 per cent. of the total trade between the two countries.

Average yearly trade, \$3,257,158.

2d. From 1833 to 1845, thirteen years,

Total exports and imports, \$82,079,144.

Balance of trade in favor of the United States, \$35,366,594, or 43 per cent.

Average yearly trade, \$6,313,580.

3d. From 1846 to 1853, eight years.

Total exports and imports, \$113,846,106.

Balance of trade in favor of the United States, \$40,338,922, or 36 per cent.

Average yearly trade, \$14,230,763.

4th. From 1854 to 1866, thirteen years *under reciprocity.*

Total exports and imports, \$671,906,782.

Balance of trade in favor of the

United States, \$20,454,246, or *only* \$20,000,000, or far more capital, work and risk for less pay than ever before *three per cent. of the total trade.* —the benefit of reciprocity!!

At this point they put in a plea of "inflated values," and the effects of our civil war, and, *for this occasion*, put Canadian custom-house reports in place of ours, which they use before and after this trying time, and thus make out a gold balance of trade in our favor of \$95,796,989, or 16 per cent., instead of three per cent., and even this is a more rapid decrease of the per centage in our favor than ever before.

Average yearly trade under reciprocity, \$51,685,137.

5th. From 1867 to 1873, seven years reciprocity repealed.

Total exports and imports, \$466,807,726.

Balance against United States, \$51,875,008, or 11 per cent. of total trade.

Average yearly trade since reciprocity, \$66,686,818.

Compare these five periods, and and we find a large and natural increase of our trade with Canada, keeping pace with our great increase in wealth, and in trade within ourselves, and with other nations, but a constant decrease of percentage of the balance of that trade in our favor, and that decrease more rapid under reciprocity than ever before or since.

To put this in another form: In the first period, on a total trade with Canada of \$39,000,000 in twelve years, we had a balance of \$24,000,000 in our favor. In the fourth period, under reciprocity, our total trade of \$672,000,000 for thirteen years only gave a balance for us of

\$20,000,000, or far more capital, work and risk for less pay than ever before —the benefit of reciprocity!!

The fifth period, from 1866 to 1873, shows the constantly decreasing balance in our favor, (which reciprocity accelerated) gone down to a balance against us. Unfortunately for us, during that same period our imports have exceeded our exports with all the outside world, and not alone with our Canadian neighbors.

If it be said that it is not the balance of trade between nations so much as its amount that brings mutual profit, we point to our trade with Canada for the past seven years larger by the figures of the British "Memorandum" than ever before, as proof that we now realize such profit more largely than under reciprocity.

But, using official figures, theirs in part, and we find the balance of trade against us for the three last years under reciprocity—1864-6—was \$47,533,000, while that unfavorable balance in three years since—1868-'70—was but \$26,233,508. How much is their assertion worth that "this state of things (a balance in our favor) came to a sudden end with the expiration of the treaty?" What, indeed, are any of their figures or statements worth? They tell us of the Inter-Colonial Railway being built at National expense, at a cost of \$20,000,000, for direct Canadian intercourse with Halifax and Nova Scotia, whereby we are to lose transportation. As it is some 1,000 miles by this railway, when it is finished, from Montreal to the ocean at Halifax, and about 200 miles to the same ocean at Portland, one may well ask

how much grain will reach tide-water at Halifax from Montreal in the winter, at an extra cost of over 50 cents per bushel above the shorter route? The Canadians now have transit of grain and produce free of duty across our territory, under bond, as we have across theirs, and both have the free navigation of the St. Lawrence. Mutual benefits, no doubt, but far greater to them than to us, as is the equal use of their canals, for not a railroad or canal in Canada would pay costs of keeping up without the freights we give them from our overcrowded land and water routes. This is well stated in the report of J. N. Larned, in 1871, to our Treasury Department, on the "extent and state of the trade" between us and Canada, the result of his careful and extended inquiries under a joint Congressional resolution, a document of more value than a score of foreign "memorandums." He says:

"These arrangements of trade are of important value to this country, and its interests would suffer materially from any suspension of either; but the difference in the situation of the two countries with reference to them is very marked. To the Canadian provinces their importance is nothing less than vital, since on the one hand the very sustenance of the arterial system of the Canadas is derived from the American commerce which circulates through it; while, on the other hand, their own commerce with the world abroad can only be conducted at exceeding disadvantage, if at all, for five months of the year, otherwise than across the territory of the United States, and by the

privilege of the customs regulations of the American government."

The memorandum includes in its estimates exports of "domestic products" from the United States to Canada. By our official reports, which they use, we find that from 1854 to 1863 we exported to Canada \$93,283,000 worth of farm products—grain, flour, meats, butter, cheese, lard and tallow—or \$10,000,000 yearly. To send these for their use or consumption would be like "carrying coals to Newcastle," for they export them as we do. They went there in transit to other countries across the ocean or into our own seaports from Canada. Of course, our custom-house reports do not follow them any farther than to Canadian agents or shippers, and so they go into their returns as exports to that country, and conveniently come in to make a better (but delusive) show in favor of reciprocity.

So this extraordinary document counts into our exports to Canada some \$24,000,000 of goods that simply cross the state of Maine from other countries to that province, and can thus say that, "with the exception of Germany, Canada was, in 1872-3, the largest customer of the United States outside the British empire." Poor pleading for a poor case!

IN CONCLUSION.

These statements and opinions on a measure of grave importance and far-reaching results are respectfully commended to the careful attention of our legislators. G. B. STEBBINS,

502 E street northwest
WASHINGTON, D. C., Jan. 4, 1874.

ENFORCING A CHANGE.

The time for prophesying a change in the lumber manufacture of the Saginaw river and other producing districts has gone by. The change is actually upon us, and the journalist need not risk his reputation in prophecy, but confine himself to recording the actual event as it is developed. The immediate cause of the revolution is undoubtedly to be found in the wonderfully rapid increase of the inland or railroad mills. But a very few years ago, the great river mills had a monopoly of the trade. They cut immense piles of lumber, and it was shipped off by water—sold by the cargo as it came from the saw. Now what a change has taken place! Lines of railroad, pierced the pineries in almost every direction, and along them are scores of mills, located in the midst of vast pine tracts, and busily cutting for shipment the whole year round. No ice embargo interferes with the movement of their product; the winter sees it going as rapidly as in the summer time, and nothing stops it but a stoppage of the demand.

In a single Wisconsin district last year, hat about Stevens Point, no less than twenty-three of these mills were put up, and most of them went into operation before the year closed. In Michigan, one line of railroad leading through the Saginaw Valley has worked up a product of nearly one hundred millions per year since 1871, and another line runs close to mills that will cut several hundred millions in a year—all these the growth of a very few seasons. In the western part of the State, a similar investment has taken place.

But it is not alone the capacity of these new competitors for trade that has worked a change in the business. Their manner of supplying consumers and dealers has been perhaps as efficient as anything else in building up their trade at the expense of the large river mills. The inland mills

cut lumber to suit the market, and sell it as it is wanted. A car load of any desired description may be obtained at any time at these mills, and if it happens to be on hand, it is soon sawed and shipped. The customer who looks in vain among the big mills for anything but boards, and those to be bought only by the cargo as they are piled on the docks, goes at last to the inland mill and there gets just as much as he wants of any desired description. Such facilities of purchase as these must have an effect in any season, but in tight times, when buyers are careful and shy, their influence cannot but be great.

It may, in short, be set down as a rule, that the inland mills will get their product off if any at all goes from the district. This being so, and the amount of lumber they produce running up into the hundreds of millions in a single State, the effect upon the trade in general cannot be doubtful. It constitutes a new element in the calculation, and one too important to be ignored. The great increase in capacity for the last few years has been in the inland mills. Year by year they are supplying more and more of the demand, and diminishing by so much the market of the older concerns.

The direction of this influence upon the river mills is plain. It is toward a finer handling of the lumber by the manufacturer, a carrying of the manufacture a step or a number of steps, further toward completion for the actual consumer. Nothing is more certain in the lumber trade than that this necessity is to be pressed with increasing force year after year. In the northwestern pineries it has been acknowledged already by the establishment of large manufactories which use up the common lumber in the production of a great variety of articles. In Michigan the same influence is felt, and wood working machinery of various kinds is being rapidly introduced. The coming season will doubtless effect a great deal in the progress of the revolution.—*Lumbermans Gazette.*

LOGGING IN BROWN COUNTY.

The Crop for 1875—The Amount of Standing Pine—The Season's Prospects.

[Special Correspondence COMMERCIAL TIMES.]

GREEN BAY, Jan. 16.—As heretofore stated, the log crop for 1875 will be fully up to 1874, in Brown county. Hard times seem to be an *incentive* rather than a hindrance to getting out logs, because about every man of the jobbing or manufacturing fraternity seems to think that every other in the craft is hard up and can't do much this year. So he proposes to make a "big thing" by getting out a large stock.

And I may add another motive which operates in the county to some extent, viz: that so many of the lumbermen have only about timber enough left for another season's stock, and not wishing to make "two bites of a cherry," they propose to put it all in this winter, preparatory to emigrating to the Wisconsin Central Railroad or some other good lumbering district.

At present there is not snow en52oh for profitable logging, yet all are hard at work, doing what they can in hopes of a better time coming and more of it soon.

From the most reliable available information, the crop of '75 in Brown county will stand as follows:

On West side of Fox River; A. Weed & Co., Suamico, 7,000,000 feet; Trumble & Co., 8,000,000; Wm. Cook, 4,000,000 feet. About half of Cook's logs are for Peters & Co., the balance for himself.

C. Munro & Bros., Suamico, 5,000,000 feet; A. Grenier, jobber, Suamico, 2,000,000 feet; A. C. Foster, Fort Howard, mill in Pittsfield, 9,000,000 feet; Oscar Gray, Fort Howard, mill in Pittsfield, 5,000,000.

There are also two or three small concerns in Lawrence West and Wrightstown, which will get out perhaps 2,000,000 feet more, making altogether about 42,500,000 feet on the west side of Fox River.

On East side the river, L. J. Day & Co. Green Bay, two mills in Gleason, 5,000,000 feet; two mills in Holland, 1,500,000 feet; R. M. Holmes, Green Bay, mill in Rockland, 3,000,000 feet; Blake & James, Depere, one mill in Rockland, 2,500,000 feet; Geo. R. Clark, Green Bay, mill in Eaton, 5,000,000 feet; Ben Smith, Depere, mill in Gleason, 3,000,000 feet; Dr. Van Norstrand, Green Bay, mill in

Humboldt, 2,000,000 feet, O. N. Warren & Co., Green Bay, mill in Humboldt, 1,500,000 Earle & Case, Green Bay, mill in Humboldt, 1,000,000 feet; Two Rivers Manufacturing Company, Two Rivers, cut in Brown county, 2,000,000 feet. Some three or four other smaller concerns, say 1,500,000, making an aggregate of 28,500,000 feet on the east side of Fox river, and of 71,000,000 feet in the county.

Of course, these figures may vary from the actual "cut," but from present indications they will not fall far short.

After this winter's pine crop is taken off there will be left in the county, according to the best available estimates, as follows:

On west side Fox River, Oscar Gray will have 5,000,000 feet; Tremble & Co., 70,000,000 feet; A. Weed & Co., 8,000,000 feet; Wm. Cook, 2,500,000 feet; other small lots, 6,000,000 feet; total, 91,500,000 feet. On east side Fox River, about 25,000,000 feet. Making 116,500,000 feet altogether remaining in the county.

The pine on the east side of Fox River is chiefly held by the Two Rivers Manufacturing Company, so there will be very little for the mills to do next year.

On the west side the pine is chiefly held by four concerns, and largely in fact by one, viz. Trumble & Co. So that about one year more will close up all the mills except Trumbles & Co., and Weed & Co.

The latter mill having been burned down, the company have decided to rebuild in Green Bay. Should they do this, they will be in a position to secure stocks from Suamico, not only, but from any points most convenient on the Bay Shore. M. P. LINDSLEY.

Logs on the Wolf.

We have been furnished the following estimate of the amount of logs that will be put in this winter on the Wolf and its tributaries:

Main Wolf below Shawano.....	75,000,000
Little Wolf.....	25,000,000
Red River.....	9,000,000
West Branch.....	9,000,000
Shioc.....	20,000,000
Upper Wolf.....	25,000,000
Shawano Lake.....	2,000,000
Embarrass and Pigeon.....	10,000,000
Fremont.....	4,000,000
	<hr/>
Old logs on hand at Oshkosh and Fond du Lac.....	121,000,000
	<hr/>
	30,000,000
	<hr/>
	151,000,000

WISCONSIN'S GEOLOGY.

PROFESSOR LAPHAM'S PROGRESS UNDER THE SURFACE.

Valuable Work of the State Survey—The Penoka Iron Range of Ashland County—Lead Resources of the Southern Counties—Kaolin of Jackson and Wood Counties—Iron Resources of Oconto County—Soils of Kewaunee, Washington and Ozaukee Counties.

"Canst thou work i' the ground so fast!" was Hamlet's apostrophe to the ghost. His fellow-citizens may with pride apply it to Prof. Lapham and his energetic assistants. A writer in the *Madison Democrat* yesterday sums up the achievements of the state survey as follows:

"Since the inception of the survey in May, 1873, an immense amount of material has been gathered together during the seasons of field work, and partly worked into shape during the winter. About one-third of the towns in the state have been entered and examined. Upwards of forty geological, topographical, and other maps of different portions of the state have been prepared with an accuracy and closeness of detail surpassing those of most all state geological maps yet published in the country. Accompanying these, are several hundred sections, sketches, etc., whilst material is at hand for as many more. Manuscript reports are already made, sufficient to constitute a large quarto volume. Still not more than two-thirds of the material collected has been worked into shape. Many thousand specimens of ores, clays, rocks, soils, marls, building stones, pebbles, fossils and mineral waters, have been collected from all parts of the state. Many of these have been carefully examined and described in the manuscript reports, whilst still more await patient study. These specimens have all been numbered carefully, and are referred to by number in the reports. A set of them will go to the university and one to each of the colleges in the state, as well as to the Wisconsin Academy of Sciences. Of the results reached by the survey, of immediate practical value and special interest, the following are worthy of mention:

(1.) The completion of the topographi-

cal survey of the lead region, under Mr. Moses Strong, Assistant Geologist. The whole lead region has been covered with counter lines at a distance of fifty feet vertical and the dip of the rocks carefully determined. With these data it is now possible for any land owner in the region to calculate closely whether the "mineral ground"—which is confined to certain layers of rock—underlies his land, and if so at what depth. The accuracy of the geological and topographical maps of this region are especially worthy of remark.

(2.) The detailed examination of the iron ores of the Penoka Iron Range in Ashland county, by parties under R. D. Irving, Assistant Geologist. This whole range and its wonderful beds of iron are now for the first time described in detail. The general structure of the range, the relation of the iron-ore beds to the surrounding rocks, the locality of each outcrop of ore and the exact richness of the ore from each outcrop, have been definitely ascertained. In getting at the last point, the mode of proceeding was as follows: On the ground a careful average sample was made by breaking small fragments from all portions of the outcrop, rich or poor, in a regular manner. These fragments were then carefully broken fine on the ground and mingled thoroughly. From this mixture a sample was taken, enclosed in a bag, and dispatched to the chemist. The results of these analyses have shown the outcropping ores to be leaner than the very rich Michigan ores—but richer than many rich ores that are successfully treated, and of a most wonderful degree of freedom from the hurtful temperatures, sulphur, phosphorus, and titanium, whilst they are almost always manganiferous. *In this matter of freedom from phosphorus they surpass any other ores in the United States.* Since the examination by the geological survey, some little mining has been done and a richer quality of ore has been obtained. Some of this (a large sample) was sent to the chemist of the survey and was found to contain 57 to 58 per cent of metallic iron. The general run of the better out-cropping ores is 40 to 50 per cent. Although the old miners' saying that "ores get richer as they go down" is entirely without warrant of fact, it is altogether probable that the best ores of the range are *not* those that show themselves on the surface. Inasmuch as the richer ores are soft they readily crumble under atmospheric influences, and becoming covered with detritus and soil are hidden from view, whilst the

leaner siliceous ores being hard and compact, withstand these influences, and remain in bold and large exposures. The ore beds of the Penoka Range including all kinds have a thickness of 300 to 500 feet and an extension along the surface of fully thirty miles, their position being vertical. Some of the leaner ores, consisting of alternating bands of magnetic iron and quartz, are susceptible of a mechanical enrichment, producing a material sufficiently large to use in the blast furnace; whilst other kinds can only be enriched by a very fine pulverization, the resulting material being inapplicable to blast furnace use. Such a material is however of use as the fettling of puddling furnaces, and if the new processes for the direct extraction of wrought iron from the ore should prove as successful as they promised to do, is just the material needed in those processes. The great use of these ores, especially the richer ones will be for the manufacture of Bessemer pig metal, now so largely used for conversion into steel by the Bessemer process. This process demands a pig iron with less than one-tenth of one per cent. of phosphorous in it, and if mananess is present in the pig, all the better. Now the Penoka ores are both free from phosphorus and highly manganiferous. For admixture with calcereous ores like those of Iron Ridge in Dodge county the Penokia ores are also applicable.

(3.) The examination of the Oconto county Iron Region was by Major T. B. Brooks. This gentleman, long connected with the Michigan Geological Survey, and of wide reputation, as an expert in explorations for iron, was engaged by the chief geologist, Dr. I. A. Lapham to extend his explorations across the Menomonee River into Wisconsin. He has been able to demonstrate what was heretofore only surmised, the existence of beds of iron ore of richness and value. The result was hardly expected by the officers of the survey.

(4.) The examination of the kaolin or decomposed rock, of Wood and Jackson counties. This clay is destined to become of considerable importance. Already it is being used on a large scale in the manufacture of fire-brick, and will doubtless be available as a porcelain clay. Each locality has been carefully examined, and samples selected of which chemical analysis are being made.

(5.) In the eastern portions of the State, which have been examined by, Professor Chamberlin, the most important points of economic interest have been those relating to agriculture. Eight classes of soils and fifteen groups of native vegetation have been

recognized and their relations to each other and to the climatic influences underlying geological formations, topography and distribution of boulders have been studied with interesting results. A considerable portion of the sandy soils of Washington and Ozaukee counties have been ascertained to be calcereous, a point of no little importance. Numerous observations upon the habits and food of insects and birds have been made, a large report on this subject alone, having been prepared relating to some 60 species of lepidoptera, and 100 of birds. During the past summer the digestive organs of about 300 birds had been examined to ascertain their food. Magnetic iron sand has been found to be distributed extensively along the shores of lake Michigan in very accessible situations, and in the aggregate in large quantities. Some interesting facts relating to lime and lime-stones have been added to those previously developed, especially in relation of the physical state of the rock to facility in burning and ease of slacking. A very fine deposit of shell marl has been found in Kewaunee county, and smaller ones elsewhere.

Besides these points of practical value, many very interesting facts of a scientific bearing have been brought to light. These are too numerous even to be enumerated within the limits of this letter. Some of them are of very first importance. Suffice it to say that the structure of our state is known as it was never known before.

ORGANIZATION OF THE SURVEY.

The geological corps is composed as follows:

Chief Geologist—I. A. Lapham, Milwaukee.

Assistant Geologist—R. D. Irving, Madison; T. C. Chamberlin, Beloit; Moses Strong, Mineral Point.

Chemist—W. W. Daniells, Madison.

The following gentlemen have been connected with the survey as assistants: Messrs. E. T. Sweet, F. B. Jenny, W. Monro, T. H. King, L. C. Wooster, G. D. Sweezy, J. H. Chamberlain, A. D. Conover, G. Haven, T. B. Bowman, and Prof. James H. Eaton, of Beloit College. Prof. Wm. J. L. Nicodemus has had charge of the larger part of the drafting of maps, etc., and their style bears testimony of his skill and accuracy.

The Yield of Precious Metals.

The *Enterprise* of Virginia City, Nev., says: "The yield of gold and silver on the Pacific slope during the past twenty-five years amounts to \$1,583,644,934. Of this sum California produced \$1,004,919,098; Nevada, 221,402,412; Utah, \$18,527,197; Montana, \$119,308,147; Idaho, \$57,249,197; Colorado, \$3,000,000; and Oregon and Washington Territory together, \$25,504,250.

BOILER EXPLOSIONS.

LATEST CONTRIBUTION OF SCIENCE TO AN ALL IMPORTANT SUBJECT.

Report of Mr. A. T. Hay to the Secretary of the Treasury—The Laws of Vaporized Water—Difference Between Ruptures and Explosions—How to Avoid Both.

We have received from Mr. A. T. Hay a copy of his report to the Secretary of the Treasury on the subject of boiler explosions, from which we take the following:

When we boil pure water the steam rises regularly in spheres from the bottom of the vessel to the surface of the water.

"The volume of a confined mass of steam is inversely proportional to the pressure to which it is exposed, and directly proportionate to its absolute temperature." Steam at a like temperature and pressure has at all times the same number of molecules in a like volume, and the true measure of its energy may be calculated with mathematical precision. Water assumes three natural, or allotropic forms—liquid, solid and vapor; in all these forms its qualities inhere. What is true of a molecule of water, ice or steam, is true of the whole volume of either—these several forms being due entirely to a change of temperature.

Water is the most stable compound in nature; neither pressure, cold nor heat alone will reduce it to its original elements.

It also has a greater capacity for heat than any other known substance, except hydrogen gas.

Water, *per se*, is as true to its peculiar characteristics under the various degrees of temperature and pressures to which it may be subjected as the magnet is to the Polar star. Steam is an elastic fluid, and has the true measure of its energy in any given case directly proportional to its temperature and pressure. These two conditions supplement each other.

Now, the volume of a confined mass of steam being inverse to the pressure to which it is exposed, a rupture to a steam boiler must instantly reduce the internal pressure and relieve the stress; and, on

the other hand, the pressure being directly proportioned to the absolute temperature, and relieves the pressure or tension: which brings us to the logical conclusion that neither a weak place in a boiler nor the supplying of cold water are, in themselves, the least sources of explosion. "But," we are told, "it is the discharging of cold water on to red hot iron that does the mischief." Let us look at that in the light of truth. In the first place, water has nearly ten times the capacity and affinity for heat that iron has, and I will defy any man to heat any part of a boiler or open kettle red hot with an ordinary blast, so long as there is any considerable quantity of water therein; beside, if it were possible to have any portion of a boiler, "red hot," it would be above the water line—whereas, the cold water (on river steamers) is supplied either through the mud drum or discharged by feed pipe near the bottom of the boiler. Now it is a fact that boilers blowing up under such supposed conditions generally go at the first or second stroke of the pump. Then, I would ask, how high a few strokes of the pump will raise the hot water over a battery of boilers? Not the thickness of a sheet of brown paper.

Another fact is that many of our most terrific explosions take place under a reduction of pressure—that is, the boilers become, as it is termed, "fire hard," and sometimes it is with difficulty that a medium gauge of steam is kept up; in fact, I have known instances wherein just before an explosion ensued the steam gauge would recede from 50 pounds to 20 pounds pressure, and no amount of firing would bring up the pressure sufficient to perform the work satisfactorily. If there had been a scarcity of water there would have been a surplus of steam. When boilers fire easily and steam freely there is no danger of any fearful disaster. If a boiler gives way under such conditions it is at its weakest point, which lets off the excessive pressure and relieves the stress instantly over the whole battery. Such accidents are of frequent occurrence. They are simply ruptures, the effects of over-pressure, and not explosions in any sense of the term.

There can be no violent explosion from steam made from clean water, free from organic matter. At least, after many years close observation, coupled with direct investigation and research, I have failed to find an instance where pure simple steam made from clean water ever exploded within a range of from 15 pounds up to

500 pounds pressure to the square inch. But I do find that explosions in steam boilers (like cholera, typhoid fever &c.) revel in filth and foul water, and may be traced directly to the same source.

Take, for instance, the Mississippi and its tributaries, and it will be found that steamboat boiler explosions have been most frequent in the vicinity of large cities, and as we go down the river. The Lower Mississippi has been termed a graveyard, while that portion of the river above St. Louis, including the Illinois's, where the waters are comparatively pure and free nitrogenous matter, explosions have been very rare, while the Ohio, from Cincinnati down, is noted for many steamboat disasters. The most destructive and terrific explosions have occurred in the Spring of the year, when the waters were loaded with organic substances, earthy salts and oleaginous matters.

My researches lead me to a positive conviction that these disasters have their origin in the impurities contained in the water. In a paper like this it is impossible to go into detail, or to give reasons and incidents running through many year's observations, investigation and research, but I think that the following will give a sufficient data to enable all to see the importance of avoiding foul water for steam purposes:

When we boil foul water we find it tumultuous, accompanied with a low, bumping sound, with fits and starts, so sudden and violent in some instances as to jump bodily out of or even burst an open vessel. This antagonism to the boiling of any compound solution is caused by the attraction of these foreign particles for each other (chemical action and reaction), while in the boiling of pure water there is no chemical action whatever. Great rivers, like those of the Ohio, Mississippi and Missouri valleys, are great natural sewers, and their waters at certain seasons of the year are loaded with organic remains in every stage of putrefaction, while city wells and those around factories frequently become great sink holes and receptacles for foreign matter. My researches show that such waters hold in solution and carry in suspension from six up to sixty-three grains per gallon of organic substances, to which may be added copious quantities of oleaginous matter in certain localities and the salts of ammonia—N₂. H₃. These substances find their way into steam boilers, where they rapidly undergo chemical change, distillation,

concentration, and sometimes violent decomposition—that is, culminate in terrific explosion.

These organic skeletons, glyceric salts, albuminous substances and ammoniacal gases found in water consist chiefly of carbon, hydrogen, oxygen and nitrogen: and it is among such nitrogenous combinations and types that we find some of the most remarkable explosive bodies. They are not only aeriform, but they are gases of the most subtle and potent character; gelatinous substances, in which the different elementary atoms are all chemically combined in the same molecule, and which are liable to sudden and violent decomposition whenever the opposing forces to which they owe their existence become deranged by heat or some external cause. Their affinities are very feeble; hence their frequent destruction at high temperatures. Merely a molecular disturbance of any kind may cause violence. Their combustion being internal and instaneous, they develop a force at least ten times greater and a hundred times quicker than that of steam pressure—sudden and violent enough to destroy open vessels.

"The instability of all nitrogenous compounds is the striking peculiarity."

No amount of pressure or cold is able to reduce their aeriform gases to the liquid or solid condition again. But in clean water we have the most stable substances known, under three distinct forms, either of which may be safely had out of the other by merely a change of temperature. As I said before, heat alone will not decompose water, but electricity readily resolves it in to its original elements, and chemical action being the source of electricity, water in the midst of fickle and treacherous company becomes demoralized and loses its virtue and stability, and goes off in a gaseous state in time of chemical reaction. This frequently occurs when boilers explode, as neither water nor steam are ejected from them, but an inflammable gas is evolved. Under such conditions the engineer, dead or alive, is convicted of murder for allowing the boilers to become dry, when, in reality, a moment before the explosion his boilers contained a full gauge of water.

"Great power in the hands of ignorant managers implies great damages," which has been practically illustrated in American steamboating, railroading, &c. Science takes things as it finds them, and occupies itself in tracing relations and dependencies among phenomenal effects. Any investi-

gation to have any permanent value must be based upon the natural order of things. It must be interwoven with matter, force and truth. Then intelligence becomes a true mirror that reflects things as they are. It is only by well observed and well digested facts, through patient investigation and research along the varied lines of nature, that we generate new, and recast old ideas and arrive at truth and practical utility.

Hints on Watering Horses.

The superintendent of a street railway has recently had an interesting experience in regard to the use of water by his horses. He was in the habit of leaving the horses loose in the stall. In one corner of the stable was a tank of water. He noticed that one of the horses while eating would leave the stall, go to the tank, and take a little water and return to his fodder, and that the other horses in turn followed his example. To test the matter further he had cups which would hold a small quantity of water, placed in the stalls, and then noticed that the horses would take a mouthful of oats, and then a little water, and then a bite of hay, and thus alternate, keeping his mouth and food moist while eating. A citizen to whom he related the facts, tried the experiment with the same results. It appears that under certain circumstances, the horses act very much as human beings do, alternating their food and drink, and probably the dryness of their food in the stalls render this habit a useful one, and better for the animals than the common practice of giving them a large quantity of water at one time, apart from their food.

No Luck About It.

Twenty clerks in a store, twenty hands in a printing office, twenty apprentices in a shipyard, twenty young men in a village—all want to get along in the world and expect to do so. One of the clerks will become a partner, and make a fortune; one of the compositors will own a newspaper, and become an influential citizen; one of the apprentices will become a master-builder; one of the young villagers will get a handsome farm, and live like a patriarch—but which one is the lucky individual? Lucky? There is no luck about it. The hing is almost as certain as the rule of three. The young fellow who will distance his competitors is he who masters his busi-

ness, who preserves his integrity, who lives cleanly and purely, who devotes his leisure to the acquisition of knowledge, who gains friends by deserving them and who saves spare money. There are some ways to fortune shorter than this old, dusty highway; but the staunch men of the community, the men who achieve something really worth having, good fortune, good name, and a serene old age, all go to this hard, dusty road.

Frosted Panes.

An excellent illustration of the deposition of frost may be obtained from the frozen moisture so commonly found on the inner surface of the panes of glass in bedroom windows, when the temperature of the outer air is lower than thirty-two degrees Fahrenheit. The cause, of course, is to be attributed to the cooling of the air in the room by the colder air outside. Now, an exceeding neat experiment may be made, with but little trouble, by which the effect of radiation on the deposition of frost can be studied. Cut out two small pieces of tinfoil, and fix one on the outside, observing to place them on different parts of the pane, so that they may not face each other. In the morning it will be observed that the deposit of frost is appreciably thicker on the piece of tin foil that is on the inner surface of the pane than on the rest of the window, while it is entirely wanting on that portion of the glass covered on the outside by the tin foil. Clearly, therefore, the inner tin foil must have made that part of the glass under it colder than the rest, and the outer foil the portion under it warmer. The explanation is as follows: Tin foil is a good reflector of heat, and consequently a poor radiator. The foil on the inner surface of the pane allows the glass beneath it to grow colder than the surrounding portions, by the protection it affords to the heating of the glass by radiation from the apartment, since it reflects nearly all the heat of the apartment that would otherwise have passed into the gass at this point. On the contrary, the foil on the outer surface of the glass prevents the radiant heat of the apartment from escaping through the glass at this point. The part so protected will consequently be warmer than the rest of the pane, from the smaller quantity of heat that it loses. The ingenuity of the interested reader will enable him to vary these experiments in a variety of ways.

The Advantage of English over American Railways,

While it is reasonably claimed that the mercurial Yankee beats his lymphatic cousins in some of the details of railway economy, it must be admitted that the English are our superiors in their appointments for safety.

Mr. W. W. Evans, in a recent letter to the Right Hon. Hugh C. E. Childers, M. P., the agent general of the colony of Victoria, who lately visited Milwaukee to inspect our famous railway systems, he asserts especially the superiority of American over British railroads in the point of economy. He proves by figures that the leading American lines, notwithstanding the greater cost of American labor and our self-imposed taxes upon iron, furnish transportation at a less cost to their customers and with more profit to their stockholders, than the leading lines in England. He attributes this result to "the ever-thinking, restless and inventive brains of the American people, in designing and constructing bridges for passing rivers, that cost only half the money, but have the same factor for safety as those used in Europe;" and to "the peculiar designs of the American rolling stock, both engines and cars, and the ease with which they run on very difficult lines, and the superior power developed by the engines in hauling trains."

There is probably no question as to these claims on behalf of American railway management. And certainly any citizen of Wisconsin who has been obliged to travel in the primitive, dreary, inconvenient boxes called "carriages" on a first-class English railway, and has had to pay royal prices for the commonest sort of accommodations in their "first-class" coaches, will hesitate to admit the superiority of American roads in point of luxury and convenience, in spite of the grounds of complaint at the bottom of the Potter Law.

But, to paraphrase the observation of Job—which really ought not to require paraphrase, since Bible students claim that Job invented the locomotive—the American iron "horse is a vain thing for safety." In this direction we have several lessons to learn from our English friends. Possibly the American tendency to economy, to produce large profits on watered stock—perhaps also the effort of extravagantly or

dishonestly built roads to comply with the popular demand for cheaper transportation—is in some degree responsible for their extravagance in the consumption of human life. Rails, in spite of the re-action in the iron market, are dear compared with lives. It is tedious for railways to tunnel or bridge highways, as they invariably do in England, to build fences, to repair roadway, to renew shaky bridges and rotten rails. It seems to be the American notion of economy to work railways as the companies work car and omnibus horses in New York City, or as the planter used to work his slaves in Louisiana—get as much out of them as possible in the least possible time, and when they are used up, get more. The subject appears to be viewed only in its commercial aspect, and railway managers have evidently concluded that smash-ups and damages are cheaper in the long run than enough track-men and watchmen and precautions and repairs. So, it has come about, (to use the words of a Chinese writer whom the *COMMERCIAL TIMES* lately quoted against the introduction of this modern innovation into the "Flowery Kingdom") "a merchant has to buy a coffin before he makes a trip to purchase goods.

We shall have to trust to time, assisted by a press that is happily no longer subsidized by free rides, to educate our American railroad men into the English estimate of the worth of passengers' lives.

It is especially to be hoped that the recent English invention known as the "block be in" may system due time employed on American roads for the prevention of collisions. In theory it is perfect. The main principle of the system consists in dividing the line into suitable lengths—varying according to the number of trains passing daily between termini, and the character of the traffic—each of which is styled a "block section," and allowing no train to enter upon a section until the proceeding train has passed from off it. At the beginning of each section a signal man is stationed, and from the cabin in which he sits a lever depends across the track. While the line is clear to the beginning of the next section the lever is raised, but if a train approaches the station before that preceding it has left the block the lever is dropped and the engineer is compelled to halt until the track is clear. The cabins are, of course, connected by telegraph, a set of simple signals being used to convey the necessary information from one station to another.

THE ALBANY LUMBER TRADE.

The Business Done in 1874—Stocks Reserved—&c., &c.

[B. Wait in Lumbermen's Gazette].

ALBANY, Jan, 1, 1875.

A happy New Year to old Albany! And may this expression in all its manifold meaning spread out far and wide embracing the whole globe, for it is cosmopolitan in sentiment. Yet we should specify all of the trade in general and those individuals connected with our journal in particular. While we are writing the bands are playing, and the canon booming, and human voices are hurrying joyfully over the inauguration of a new Governor for the Empire State. Let them rejoice, it is an honor to be elected as the superior ruler of so great and so important a state. And the party which wins is entitled to consideration, and the man who is elevated, to a sympathetic consideration of his fellows, for we are never sure that it is really an elevation; that depends solely upon the means used to acquire it.

But to our task. If any man imagines it to be an easy matter to come to a large city like Albany and interview 50 different lumber firms scattered through many streets in their winter quarters; and obtain an accurate, reliable detail of receipts, sales and reserved stocks, with scarce any mark whereby those offices can be distinguished or known by a stranger, we beg leave to tell him his conception of the difficulty is quite unreal. Or should his fancy lead him to expect a quick and pleasant conquest of the situation, we are bold to say he is totally ignorant of the discordant human element this wonderful industry has from time to time attracted to its ranks, always with a large show of glittering hopes but seldom realized fully. It is indeed curious to note the puerile subterfuges to which some minds, of malformation, will resort to lead the inquisitor astray, and thus, through his credulity, furnish the means of misdirecting the attention of an interested community. We desire to be lenient in all our intercourse with the working world, as we are a part of that branch of the human family and therefore respect it. Yet while we admit our judgment of motives for different men's actions is far from Romish infallibility, yet judging from the low standpoint in which

our limited intellect has placed us, we feel a great pity for the man who systematically persists in obstructing the progress of an investigator who is "searching after truth and the simple facts as they exist for a community of interest in which he (the obstructor) is only a dot to the "i" and oft times not one hundredth part of that. Some parties may deem these remarks personal invectives, but we name no man, and hope none will point the finger heartward and say, "that's the direction of this allusion." Education and correct general information is the principle upon which is properly based an equality in the business of life, and it is this we contend for, and have heretofore at the hazard of our life, and will contend for while God spares breathing space and muscular power for us in this contending world. If any one has learned by a diversified experience anything of improvement in the science of living, or an easier road to prosperity in any general industrial development, is it not fair that his brother, neighbor, or the stranger who comes enquiringly into his office, should have a welcome explanation in all courtesy, bounded, of course, by his ability to explain and their comprehension?

Albany is an old city, a large city, a city of importance among the cities of the Empire State; a capitol city, and no mean one in that catalogue, as witness the great parade with much "fuss and feathers" of this inaugural day. She has given to the military, the political, the polemic, the scientific and the industrial world (saying nothing of the lower strata however notorious) no mean array of true heroes, and we honor her accordingly. And in our special business line, the lumber trade, she has once worn the crown gracefully, and we revere her none the less that she has quietly surrendered that jewel to be worn by a younger brow, and taken herself the second rank. Her rival, youthful, hopeful, fast, upon whom Providence seems not only to have smiled but to have really "snickered out," finds after but a short reign that she too is on the wane and feels that "abdication" is not a bye-word for which she need have no passing fear. 1872 was her climax, produced by exigencies that can never combine again for the ennobling of her personal record, and consequently we think she can never again reach the same summit of level. Also that in the course of natural events some other more westward "native hunting ground" will snatch the scepter from her grasp as

rudely as did she from old mother Albany, and perhaps laugh as hoarsely as she at the *coup de etat*.

In our investigations we cannot find that the real status of Albany as a lumber market has varied very much for several years past excepting in the grade of the material she has dispensed. What she lost in the upper she has gained incontinently by a larger influx of the lower, the product of her home neighbors. What she has missed in board measure she has made good by dollars and dimes through an upward tendency of price, marked, however, in its course to the present, with "bear" and "bull" conflicts.

At writing we find 50 different firms doing a lumber business, all of whom with the exception of some 11 firms do a wholesale trade, and yet a few of these do a small retail business, especially in the winter.

The aggregate receipts have been for the near, as near as can be obtained, 500,000,000, and the amount held over 1873, 113,000,000, making for this year's market, 613,500,000; being held over this winter, 98,750,000; sold in 1874, 514,750,000.

These are fair showings and the small stock held over this winter in itself, it seems to me, is a manifestation of a wisdom in the dealers which we account for quite easily. Parties in the trade here are principally lumbermen of long and large experience, consequently awake to every sensitive appearance of markets or of the monetary atmosphere. Being so near the great money centre they are made aware very readily of the fact when cash is scarce and high, in which event they say it is easier to cut down and save the interest, especially when the market shows no prospect of a rise, than carry a load without any prospect of remuneration. Would to heaven the producers of our western forest towns could be imbued with the same spirit of wise forecast. The dull, murky appearance of the coming sky, without the conjectures of "Old Probs," has convinced them that it is better to be among the *shorts* than the *overloaded*, and they have acted accordingly.

It being our purpose as first-class journalists to bring the various branches of the trade into juxtaposition with each other as much as possible, we follow with a detailed statement of the firms here with their respective trade reports as far as it was possible to get them from the parties themselves.

Names of Firms.	Received 1874.	Held over 1874.
W. H. Weaver & Co., from the Morgan Lumber Co., of Glen's Falls, mostly hemlock and spruce.....	30,000,000	4,000,000
Benedict & Son, Canada stock.....	30,000,000	10,000,000
L. Thompson & Co., representing H. Crandal & Co., Ottawa.....	30,000,000	4,750,000
Thomas & Co., mostly Canada.....	27,000,000	4,500,000
Smith, Craig & Co., from 2 mills in Canada.....	16,000,000	10,000,000
Same firm from 2 mills in Michigan.....	10,000,000	
Norton & Co., 4 mills in Plattsburgh, N.Y., hemlock and spruce.....	20,000,000	2,000,000
Sumner & Hasey, from Michigan, high grade of lumber.....	14,000,000	3,250,000
Same firm, from Canada.....	3,000,000	
Clark, Sumner & Co., from Belleville, Ont.....	15,000,000	1,000,000
W. H. Gratwick & Co., from Michigan.....	16,000,000	1,500,000
James Moir, from Canada	25,000,000	3,000,000
Hughson & Co., Canada and Michigan pine.....	8,000,000	1,000,000
Same firm, spruce, N. Y.	7,000,000	3,000,000
Arnold, Folsom & Co., from Michigan.....	14,000,000	
I. Q. & C. Hyatt.....	10,000,000	1,500,000
J. W. Dunham & Co.....	16,000,000	3,000,000
J. B. Kelly & Co, from Au Sable, Mich.....	10,000,000	5,000,000
H. W. Sage & Co., pine from Michigan.....	11,000,000	
Same firm, hardwood.....	1,000,000	2,000,000
Dalton & Kibbie.....	11,000,000	
Griswold & Co.....	10,000,000	1,500,000
Bender, Son & Co., hemlock and spruce.....	10,000,000	1,500,000
John Douglass & son, from Canada and Michigan.....	15,000,000	5,000,000
H. Q. Hawley.....	8,000,000	250,000
Cullen & James, Canada pine.....	8,000,000	1,000,000
C. B. Nichols, Michigan.....	6,000,000	500,000
G. Hunter & Son, from Canada and Michigan.....	5,000,000	1,500,000
Same firm, from Florida, yellow pine.....	3,000,000	
Chase, Smith & Co., from Canada.....	8,000,000	2,500,000
Skillings, Whitney Bros., Mich.....	4,000,000	1,500,000
J. C. Crocker & Co., Mich and Canada.....	5,000,000	1,000,000
Ross & Karlake, Canada, Mich, Ind. and Ohio.....	6,000,000	1,750,000
R. Romain & Co.....	8,000,000	250,000
Fassett, son & Co., Green Bay and Canada.....	6,500,000	1,000,000
J. C. Ward & Son, Canada pine, spruce, etc.....	5,000,000	1,500,000
D. W. Tolcott, all Canada w. E. Simonds, Canada and Michigan pine.....	5,000,000	1,000,000
Mattoon & Robinson.....	wont tell	1,500,000
C. Warren & Son, Canada and Michigan.....	6,000,000	1,000,000
Thos Murphy.....	3,000,000	500,000
H. Hunter.....		250,000
Rodney Vase, pine, spruce hemlock.....	5,500,000	1,000,000
J. O. Towner, from Levi Young's mill, Ottawa.....	7,000,000	2,000,000
B. A. Towner.....	wont tell	2,000,000
Callendar & Mason.....	5,000,000	500,000

Joshua Rathbun, hard-wood.....		500,000
Van Kensaller & Hodson, hardwood.....	1,500,000	1,000,000
Van Sandford & Easton, pine, spruce, hemlock and considerable hardwood.....	10,000,000	1,750,900
C. P. Easton & Co.....	10,000,000	2,500,000
Fogg, Patton, Canada and Mich.....	10,000,000	3,000,000
	500,500,000	98,750,000
Left over from 1873.....	113,000,000	
	613,500,000	98,750,000
Sales of 1874.....		514,750,000

The balance of the yards we could not get a report from. I would here remark that I succeeded in closing my enquiry last night and went into Messrs. Sumner & Hasey's office and showed my memorandum of the stock on hand, when I found they had just completed an actual survey by going on every yard and estimating pile by pile, and in footing his memorandas we found a difference of only 250,000 which appears to be a proof that these gatherings are nearly accurate. If any one who may have read and treasured the canal weekly reports calls in question the apparent discrepancy, we beg he will accept the reminder that the canal reports embrace only such lumber as happens to be cleared from some port to Albany, and none which Albany dealers order from the river mills or the seaport towns on through clearances to other ports. Nor do they think of the large amounts brought to market by rail. Most of the hardwood, considerable of the spruce and hemlock, and no mean amount of Michigan and Pennsylvania pine comes to the city in that way. We can easily count over one hundred millions of that kind in a range of but a few of these offices. And therefore we feel perfectly at liberty to say that there is doubtless a larger amount handled through these Albany lumber offices than our report shows. Then again when we remember that at Fort Edwards, Sandy Hill Glenn's Falls and Plattsburgh there are 134 gangs and several circulars running pretty steadily all through the season, not obstructed with ice and snow, and the most of their product is sold here in Albany, we are lead to think another 100 million should be added to the 112. But as we have no data to warrant that assumption other than the mere look of the thing, we will not give Albany the benefit of that doubt, yet would suggest to Albanians the idea of investigating that trail, as it is to her interest to restore as much as possible her

old prestige in this important trade. Let us see it done.

One thought has struck us while writing these memorandas, and that is, the true criterion on which to judge of Albany's present importance in this trade, which gives bread, butter and covering, yes, housing, to such a vast number of God's working family (the noblest of his creation) is this dollar and dime basis. If we take that as the ground on which to rest the structure we are *insane* enough to think we could be able to erect a pedestal to her that would overtop even our lumber pet of the West. For it must be remembered that Albany pays cash for this commodity, when it reaches her docks, almost if not quite, double its value at the starting points, an enhanced value added to it by *Labor*, and we most assuredly ought to esteem that purse a noble one which draws its own strings in the liberal payment for that addition. If some worthy figurer would take the trouble to work up this sum using the average point per m paid for what lumber is sold in these offices, and do the same for Chicago and let us know the result, he will earn my gratitude, and if no one will venture upon it, I *will* at some future day when more time and less hard work is on hand.

B. WAIT.

Tempering Steel.

Tempering is the romance of the smith's shop; it has an attraction about it that characterizes every process that is mysterious, especially any process connected with, or belonging to mechanical manipulation. A strange and perhaps fortunate habit of mind is to be greatly interested in what is not understood, and to disregard what is capable of plain demonstration.

An old smith who has stood at the forge for a score of years, will take almost the same interest in tempering processes that a novice will. Give an old smith a piece to temper that is liable to spring or break when the risk is great, and he will enter upon it with the same zeal and interest that he would have done when learning his trade.

No one has been able to explain why a sudden change of temperature hardens steel, nor why it assumes various shades of color at different degrees of hardness; even the most critical researches into the chemistry of steel have offered no rational explanation. We only know the fact, and that fortunately steel has such properties.

Every one that uses tools should understand tempering them, whether it be for iron or wood work. Experiment with tempered tools is the only means of determining the proper degree of hardness, and as smiths, except with their own tools, have to rely upon the explanations of others as to proper hardening, it follows that tempering is generally a source of complaint with those who use tools hardened by others.—*Metal World.*

The Lumber Trade of St. Louis.

[From the St. Louis Globe, Jan. 1.]

In reviewing the lumber business of St. Louis for the year 1874, almost the first thought which will occur to the reader is that the large falling off in the receipts for the year, as compared with the year 1873, must of necessity indicate a corresponding decreased volume of business. More careful examination will, however, show certainly that such an assumption is not by any means just. The tabular statements appended herewith show that the stock of lumber of all kinds, January 1, 1864, exclusive of shingles, lath and pickets, to have been, approximately speaking, 184,000,000 feet, against a similar stock held twelve months prior to that date of about 118,000,000 feet. While the receipts for the year 1874 exhibit a diminution to the extent of over 50,000,000 feet as compared with the same statistics for the previous year, it is at the same time shown that stocks have been reduced in the past year some 15½ million feet. And while this still leaves the apparent falling off in the business of the year 35,000,000 feet, it will be remembered that the stock to-day is over 50,000,000 feet larger than January 1, 1873.

Looking further, a comparison of the item of local consumption and shipments for the past year with the figures for the year preceding shows the actual volume of business to have been greater in 1874 by 32,000,000 feet.

Commencing at the opening of the year 1874, with prices at what was generally supposed as low a notch as was in any event probable, dealers were forced to operate on a market that declined almost steadily to the close of the year. With the losses that followed naturally, better proof could not be adduced of the solid foundation on which rests the lumber trade of St. Louis. Viewed in the light of to-day, and comparing prices with previous years, we find that the quotations of the present time are lower than they have

been at any time since the well remembered revolution in values which followed the panic of 1857.

Feeling assured that the bottom has been reached, dealers are generally inclined to look at the situation cheerfully. And in view of the fact that St. Louis is annually becoming more of a manufacturing centre, which of necessity, causes a demand for cheap dwelling houses, it is believed that the coming season will inaugurate a new era of frame houses, and thus add to the already large lumber trade of the city. We append the following

COMPARATIVE STATEMENT.

Description.	On hand		Total.
	Jan. 1, 1874.	receipts, 1874.	
White Pine	149,721,467	99,000,000	248,721,467
Yellow Pine	4,422,564	30,700,000	35,122,567
Poplar	6,885,869	10,200,000	17,085,869
Walnut	4,971,500	3,000,000	7,971,500
Hard Wood	1,988,000	7,500,000	9,488,000
Shingles	10,406,750	70,000,000	80,406,750
Lath	3,427,500	30,000,000	33,427,500
Pickets	843,700	1,500,000	2,343,700
Logs—white Pine	12,550,000	18,000,000	30,550,000

Description.	Local consumption and shipments.		Stock on hand Jan. 1, 1875.
	Jan. 1, 1875.	Receipts, 1875.	
White Pine	108,721,467	140,000,000	140,000,000
Yellow Pine	29,122,467	6,000,000	6,000,000
Poplar	12,185,869	5,000,000	5,000,000
Walnut	3,974,500	4,000,000	4,000,000
Hardwood*	5,488,000	4,000,000	4,000,000
Shingles	60,406,750	20,000,000	20,000,000
Lath	21,427,500	12,000,000	12,000,000
Pickets	1,648,700	700,000	700,000
Logs—white Pine	23,650,000	7,500,000	7,500,000

Description.	Stock on hand		Total.
	Jan. 1, 1873.	Receipts, 1873.	
Pine, white and yellow	103,605,000	174,593,000	278,198,799
Walnut, poplar and hard wood	5,400,000	24,281,000	29,681,000
Shingles	12,906,000	18,892,000	31,888,000
Lath	3,850,950	18,892,000	30,700,000
*Logs, all kinds	8,700,000	30,000,000	38,700,000

* Ash, oak, cottonwood, cyprus, gum, heech, etc.

[NOTE—The figures opposite Shingles, Lath and Pickets shows the number of pieces. Those opposite other articles are the number of square feet.]

In connection with the foregoing we append a table showing the

AGGREGATE VALUE OF THE LUMBER handled in this city last year, as follows:

Description	Stock on hand Jan. 1, 1874.	Total Receipts, 1874.	Stock on hand Jan. 1, 1875.
	White Pine	\$2,468,397	\$1,638,000	$1,932,777
Yellow Pine	172,883	491,200	81,743
Poplar	165,619	183,600	75,244
Walnut	211,416	120,000	132,691
Hard Woods	69,700	190,000	95,000
Shingles	31,200	232,500	67,399
Lath	11,39	85,000	26,499
Pickets	14,765	21,000	9,666
Logs, white pine	220,800	292,000	199,415
Logs, hard wood	161,250	229,000	76,375
Total	\$3,526,289	\$3,483,300	\$2,611,919

RAILROAD BUILDING FOR 1874.

THE NOTABLE YEAR OF REACTION FROM THE RAILROAD MANIA.

New Road Reduced to Less Than Two Thousand Miles—Noticable Statistics for Past Years.

[From the Railway Review.]

Our record for the year shows a total of 1,925 miles of track laid on new railroad during the year. We will probably have to make some corrections in our list, and most of these doubtless will be additions, but it is substantially correct, and illustrates very completely the progress made during the year.

As was to be expected, this is the smallest mileage constructed in this country for many years. As we have compared the figures from week to week it has appeared that in 1873 we constructed twice as much and in 1872 about four times as much as in 1874. But the construction in 1873 was in itself the smallest for many years, it being indeed the beginning of the decline after a long period of extraordinary activity in railroad construction, as will be seen by the following statement, in which we give the figures from our own record for the past four years, and from *Poor's Manual* for the other years our record covering the miles of track laid, whether opened for traffic or not, during the calendar years named:

MILEAGE OF RAILROAD CONSTRUCTED FOR TEN YEARS.

	Miles.		Miles.
1865.....	1,177	1870.....	5,525
1866.....	1,742	1871.....	7,222
1867.....	2,449	1872.....	7,340
1868.....	2,979	1873.....	3,883
1869.....	4,953	1874.....	1,923

We have to go back, then, to the first year after the war before we find so small a mileage of new railroad construction as we report for the year just past.

Poor's Manual gives the mileage of the United States at the close of 1873 as 70,651. Accepting this, we begin the current year of 1875 with a total of 72,576 miles of railroad to serve a population of about 44,384,000 souls, so that there is a mile of railroad to support for every 612

persons. The increase in mileage during the year was about $2\frac{3}{4}$ per cent. This is very nearly equal to our average yearly increase in population and doubtless greater than last year's increase in production, but it is trifling compared with the rate of increase during previous years, which was $5\frac{1}{2}$ per cent, in 1873 even, $12\frac{1}{2}$ per cent, in 1872, and no less than $13\frac{3}{4}$ per cent. in 1871. This latter was a rate of progress which could not possibly last: it would have bankrupted the world.

We give below the mileage completed in each state for 1874 and 1873, which will enable the reader to see where the falling off has been greatest:

MILEAGE OF RAILROAD COMPLETED IN EACH STATE FOR TWO YEARS.

	1874.	1873.
Alabama.....	18	2
Arkansa.....	18	247½
California.....	115½	85
Colorado.....	23	121
Connecticut.....	..	29
Delaware.....	16	21½
Dakota.....	..	80½
District of Columbia.....	7	..
Florida.....	18	..
Georgia.....	..	122
Illinois.....	212	274½
Indiana.....	206½	84½
Iowa.....	34	93
Kansas.....	61	36
Kentucky.....	31½	65½
Maine.....	37½	..
Maryland.....	5	34
Massachusetts.....	27½	117½
Michigan.....	48	196
Minnesota.....	36	48
Mississippi.....	27	7
Missouri.....	31	236½
Nebraska.....	..	41
Nevada.....	40	18
New Hampshire.....	45	60
New Jersey.....	39	40½
New York.....	125½	242½
North Carolina.....	68	15
Ohio.....	142½	172
Pennsylvania.....	184	203
Rhode Island.....	14	22
South Carolina.....	..	88
Tennessee.....	..	114
Texas.....	75	385½
Utah.....	43	85
Vermont.....	5	53
Virginia.....	72½	36
Washington Territory.....	6	50
West Virginia.....	..	36½
Wisconsin.....	93	320½
Total.....	1,923	3,883

Not all the States show a decrease of course. Indeed, no less than ten show an increase. But without exception those are states which had a comparatively small—most of them a very small—mileage in 1873. Indeed, three of them had no mileage at all in that year, and another only seven miles, and only two, Indiana and Kansas, have at any time recently had any large mileage constructed. A better com-

parison of the work of the two years is that by groups of states which we give below:

RECAPITULATION BY GROUPS.		
	1874.	1873.
New England.....	130	282
Middle States.....	364	507
South Atlantic State, including		
Florida.....	169	295
Gulf States (west of Florida)...	120	394
South Interior States (Ark., Tenn., Ky. and W. Va.).....	49	463
North Interior (O., Mich. and Ind.).....	397	453
Northwestern States (Ill., Wis. Minn., Ia., Mo., Kan., and Neb.).....	467	1,050
Far West Interior (Col., Utah, Dak. and Nev.).....	106	304
Pacific Coast.....	121	135
	1,923	3,883

The greatest decrease is in what we have called the "South Interior," from 463 to 49 miles, or about 90 per cent., the average decrease of the country having been 50 3-4 per cent. Every group shows a decrease, but it is least on the Pacific Coast (only 10 per cent.,) and comparatively small in the "North Interior" (12 1-2 per cent.,) New England, the Gulf States, the South Interior, the Northwestern States, and the Far West have all fallen off more than the average; the others less. Those we have classed as Northwestern States are frequently spoken of as "Granger States" and in all or nearly all there has been legislation of late intended to reduce the incomes of the railroads. It is not easy to decide how much influence this action has had on railroad construction. As a whole, the construction was less by 55 per cent. than in 1873, when, however, it had already greatly fallen off, and this is a little greater than the average decrease. The decrease too, was especially great (71 per cent.) in Wisconsin, where the legislation has been most disastrous; but then, it has been greater still (87 per cent.) in Missouri, where there has been no enforcement of such legislation. The truth is, that for several years railroad construction has been greatly overdone in all these (and many other) states, and it did not need hostile legislation to discourage it at this time. Nothing but liberal bounties could have made railroad construction in 1874 as active as formerly.

It will be noticed that most of the lines described in our record are short. An unusually large proportion are almost of purely local interest, and several are almost private roads—intended to serve some mine or furnace, or some little group of

mines. An unusually large proportion, as was to be expected considering the financial condition of the country, are cheap railroads, and no less than 260 miles of the new road, or 18.7 per cent. is of 3-foot gauge, and very light and cheap. Nearly half of this is intended chiefly or wholly to serve mining districts.

The closeness of the money market has prevented any great improvement of old lines, where we must look in future for a large part of the new railroad work; and indeed many companies have found their traffic so reduced that their facilities, previously insufficient, were superfluously great. It has been an extraordinarily favorable time to make such improvements, however, because of the low prices of labor and material; they were very much lower than for many years previously, and those companies which could command the money could do their work for probably a fifth or a quarter less than in 1863. The New York Central & Hudson River has had the advantage of these low prices while extending about ten millions for third and fourth tracks, and the Baltimore & Ohio in completing its line to Chicago; most companies, however, have had to postpone even much needed improvements from inability to obtain the necessary capital. The companies of unquestioned standing can now borrow money on better terms than ever before, and there is an eager demand for their securities. It would seem to be a wise policy for such to begin this year whatever costly improvements they will be likely to need soon, even if they do not need them now. They will hardly be likely to get the money so easy hereafter, or to get so much for their money. We believe that some activity may be looked for in works of this kind, and also in new railroads during the current year, but there is no prospect that there will be any considerable number of railroads constructed in 1875 solely for the profit in building them, as has been the case with thousands of miles built in the United States since the war. That field for making fortunes is pretty well worn out for some time to come.

The WISCONSIN LUMBERMAN will be largely improved during this coming year. No lumberman can afford to be without this publication. Subscription price only \$2.00 per year, in advance.

ALASKA TIMBER.

SHIP BUILDING ON THE PACIFIC
COAST.

Memorial of San Francisco Capitalists to
Congress for an Extensive Grant of
Timber Lands.

Senator Hager of California has presented to Congress the following memorial, in furtherance of the scheme of certain prominent capitalists of San Francisco for a grant of timber land in Alaska for shipbuilding purposes.

To the Congress of the United States in Senate and Assembly convened: Your petitioners most respectfully present to your honorable body the following, viz: Alaska was purchased by the United States in 1865. At that time the Territory was supposed to have little value except for its proximity to our other possessions on the Pacific, and the possible danger that it might come under the control of a nation less friendly than Russia to us, and our extension in that direction, should it be deemed a national necessity at a later period. It is true it was known that the outlying Aleutian Isles had some value for furs (since then important concessions have been granted to a commercial company engaged in the fur trades and that its shores and inlets abounded in fish; but otherwise it was regarded as comparatively valueless. The climate is unfriendly to white population; the larger part of the year it is deluged with rains and enveloped in fogs. Though the temperature is much milder than in the same latitude on the Atlantic, it is so far advanced into the Arctic region that for several of the winter months out-door labor would be much embarrassed.

EXPLORATIONS OF THE INTERIOR OF THE
TERRITORY

have been so limited that very little can be said of a definite nature of it; but so much is known of the general character of its climate that it is reasonably safe to conclude that for agricultural or pastoral pursuits it has little to invite settlement. The tribes of Indians inhabiting its shores and streams are esteemed the most warlike of any on the continent, and very little disposed to cultivate friendly relations with the whites who have visited them. At considerable expense an exploring party has been sent, during the past season, to examine the shores of the mainland and some of the islands, to ascertain if good material for ship-

building could be obtained, and in quantities to justify an effort to re-establish an industry which has so long languished in the United States that an American ship is too rarely seen, either in our own or foreign ports. This exploration has revealed the existence of considerable bodies of timber which are regarded as particularly well adapted to the construction of ships. The question to be considered is: Can capital be induced to go into such a country and engage in this important industry of ship-building? Two things are indispensably requisite to it, which are—first, that the government shall establish a military post within a convenient and protecting distance of where the ship-building enterprise is located, to protect laborers against the hostilities of the savages; and second, that a portion of the territory, within a radius of say twenty-five miles shall be set apart to a corporation formed under the laws of California, to be called

THE ALASKA SHIP-BUILDING AND LUMBER
COMPANY.

Its successors and assigns (or an equal area, exclusive of all ocean navigable waters,) to be selected by said corporation; authorizing it to make use of the timber thereon, and to purchase the whole or any portion of said area at any time within the next ten years by the payment to the Government of one dollar and twenty five cents per acre. And also granting the further right to said corporation to take any other timber-land outside of said reservation, by paying to the Government as aforesaid; the right to cut the timber to date from the time said corporation notifies the Government of its purpose to take and use land as aforesaid and renders payment therefore. Provided, and upon the express condition that said company shall within two years of the date of such grant by congress, and the establishment of a military post, establish a ship-yard, and build at least one ship of not less than 1,200 ton burthen, and shall thereafter maintain said ship-yard, and continue the vigorous prosecution of ship-building. On the presentation therein made, and the conditions herein named, your petitioners humbly pray that your honorable body will take this matter into serious consideration, and pass a bill enacting provisions which will secure to your petitioners the objects of the foregoing petition.

[Signed] H. C. Tichenor, William T. Coleman, William Burling, Matthias Turner, Thomas H. Selby, Calvin Paige, W. F. Babcock, H. D. Bacon, John Parrott.

REMARKS OF MR. HAGER.

In presenting this memorial Senator Hager said: "I present the memorial of certain citizens of California in regard to Alaska. These memorialists have gone to considerable expense in fitting out an exploring party to ex-

amine timber lands in the territory, so far as it may be adapted to ship-building. They have obtained valuable statistics from the explorations that have been made, and they now memorialize Congress for the privilege of buying a tract of timber land with a view to establishing ship-yards there for the construction of ships. In California there has been great difficulty hitherto in getting sufficient ships to carry our grain to the markets of the world, and the idea is that if our people engage in ship-building a great many of the farmers there will unite to buy the ships in order to transport their grain. I move that the memorial be printed and referred to the Committee on Public Lands, as it relates to the purchase of a tract of land, and I think should more properly go to that committee than any other."

TOLEDO LUMBER.

The Lumber Trade of Toledo for the Year 1874—Total Amount of Lumber Sold in the Past Year—A Falling off of About 20 Per Cent. from the Trade of 1873.

The following figures from the *Commercial* gives a very definite idea of the lumber business done in Toledo during the year just closed. Here is given a table showing the amount in feet of lumber, logs, lath, and shingles on hand and to be kept over the winter:

Firms.	Lumber.	Lath	Shingle.
H. W. Sage & Co.....	6,000,000	600,000	800,000
Wm. Peter.....	15,000,000	300,000	500,000
Serris & Holland.....	6,000,000	500,000	150,000
Curtiss & Brainard....	4,000,000	300,000	100,000
Kelsey & Lawton.....	2,000,000	200,000	1,800,000
Wheeler & Thomas....	4,000,000	100,000	500,000
Smith, Kelley & Co....	4,000,000	100,000	500,000
J. Copeland & Son....	1,500,000	100,000	100,000
Mitchell & Rowland....	12,000,000	500,000	200,000
J. W. Waterhouse.....	1,500,000	100,000	100,000
McLarn & Sprague....	50,000	1,500,000	1,000,000
David Smith.....	1,750,000	150,000	50,000
Tracy Bros.....	1,900,000	200,000	25,000
Total.....	57,300,000	5,050,000	5,825,000

LONG LOGS,

Mitchell & Rowland.....	8,000,000
David Smith.....	3,750,000
Tracy Bros.....	3,000,000
Total.....	14,750,000

Below are further figures showing the amount, in feet, of lumber sold, also of lath and shingles, from Jan. 1 to Dec. 31, 1874:

Total lumber sold.....	76,000,000
Total lath sold.....	27,000,000
Total shingles sold.....	64,000,000

Estimating the average selling price of lumber at \$18 per thousand, of lath at \$2, and of shingles at 4¢, the following table

gives an approximate of the amount of sales in dollars, of each for the year:

Total sales of lumber from Jan. 1 to Dec. 31, 1874.....	\$ 1,336,600
Total sales of lath.....	58,000
Total sales of shingles.....	256,000
Feet timber sawed.....	16,900,000
Estimated at \$20 per thousand.....	\$320,000

In comparing the trade of 1874 with that of 1873 there appears in the former a falling off from the latter of something like 20 per cent. in the amount of sales. The amount of lumber sold is perhaps scarcely any below that of 1873, but prices have been much lower. The lumber market has been influenced everywhere by certain troubles that have been engaging the most thoughtful attention of lumbermen, producers and dealers alike for over a year. The market has been overstocked by producers of lumber, and as a consequence, prices have been low. It would be strange indeed, if Toledo did not feel the effects of such wide-spread commotion.

A MINT OF WEALTH.

The Boundaries of the "Big Bonanza" Silver Mine—One of It's Millionaire Owners Thinks It May Be Worth \$1,500,000,000.

The extent and value of the recently discovered "Big Bonanza" silver mine is all the talk at San Francisco. Mr. Flood, one of the principal owners, was recently interviewed concerning its resources, and says it is probably worth \$1,500,000,000. Some idea may be gained of its extent by the following extract for the Virginia City *Enterprise*:

"When a few mining men began to talk of the ore proving to be 300 feet wide in the widest part they were laughed at, and were obliged to keep their ideas to themselves for fear of being thought lacking in judgment and untrustworthy. Now it is known to be over 300 feet in width, and there is to-day much better reason for thinking that it will prove to be 500 feet in width than there was for guessing its width at 300 feet at the time the latter width was first timidly mentioned; for at that time we did not know where the west wall might be at any point in the California ground."

IRON BOAT BUILDING IN MILWAU- KEE.

Sketch of Mr. Maurice Campbell's Establishment—An Enterprise that will be a Great Benefit to the Cream City Boiler-Building.

INTERVIEW WITH AN EMINENT MA- CHINIST.

A COMMERCIAL TIMES reporter yesterday called upon Mr. Maurice Campbell at his works on the corner of Milwaukee and Menomonee streets, and during the course of an hours conversation was made familiar with the eventful career of our new boiler maker. Mr. Campbell is a medium sized son, "auld Scotia" about middle age, with the hardy frame and open speech characteristic of his countrymen. His business career has been a very successful one, and at some periods quite an adventurous one. At an early age at the instigation of Mr. Tyng (brother of the Rev. Stephen H. Tyng, Jr.) he commenced the manufacture of boilers and sub-marine boats in New York with a capital of only five hundred dollars. Previous to his proprietorship he gained a valuable experience in the greatest establishments in the country, and was pronounced a thorough mechanic. Campbell is a regular forty horse-power fellow, and it is a real treat to sit down and listen to his yarns about boilers, and torpedo boats. "That," said Mr. Campbell, pointing to a picture of a queer looking object hanging on the wall, "That is the first and only successful torpedo boat ever got up. I built it for Mr. S. S. Merriam, and I tell you it was a wicked fellow. It was 35 feet long and seven feet beam made of half-inch iron. It was sort of cone shaped and was generally operated by four men. It travelled under water and could not be seen by the enemy. It created great excitement in New York, for when a torpedo is placed under a vessel by one of these boats there is no help for her. After doing some service the boat was several times stolen by different parties and was twice sunk, but was finally secured by the government and now lies in the navy yard."

"Did you ever build other boats of this kind?" asked the reporter, attentively examining the picture.

"I have an idea for building one which will be able to sail several weeks beneath the surface of the water without communication with the air."

"But the occupants of your boat must be supplied with air."

"Of course, but the boat will contain an air chamber, from which they will receive it. But I can't tell you anything about the making of these boats now. During the war I was asked to name my own price to build one for the confederacy and was strongly urged to accept an enormous amount, but"—and the smiling face of Mr. Campbell glowed with patriotism, "there was not money enough in all the south to purchase such a service of me." Showing the reporter into the shop. Mr. Campbell said "here are the finest tools for making boilers in the west I won't except one single shop. These punches and rollers can't be beat, and with these machines I propose to show the people of the Western states something in boiler work that will surprise them."

The shop is at present 30 by 80 feet but it is the intention of Mr. Campbell to enlarge it as fast as his business demands more room. When he came to Milwaukee he sought for a water front, but not finding one suited to his business he purchased the property occupied at present by Mr. Frank Vogel and not only has an excellent location for his works but plenty of room—120 feet square. Mr. Campbell after courteously showing the reporter over the entire premises said "I propose to make a specialty of the building of iron boats for carrying passengers and freight on the great lakes. They are something that are not used here now but are invaluable to a place with so great a shipping interest as Milwaukee." Mr. Campbell should be encouraged in this work, for these iron boats can be constructed as cheaply as wooden ones, and are much more economical and of course more durable. Our shippers have lost several very staunch boats by fire and sinking, and by substituting iron ones there would not be half the danger of loss by either element. Mr. Campbell exhibited several of his recent drawings of boilers to the reporter, and—by the way—they show Mr. C. to be an expert architect. He has many ideas regarding the construction of boilers, which though we have not space for, we know to be new and valuable. It was only in May last that Mr. Campbell came west by the advice of his physicians and concluded to locate here, because, as he expresses it, "I found here a city with a great and varied manufacturing interest which is constantly advancing, and I was satisfied that Milwaukee was the best place in the West for me to locate."

He possesses great enterprise and will doubtless succeed as well as he deserves. His shop was only just completed when he received a contract to build a 60 horse power boiler for the Pfister & Vogel Leather Company. After passing a very happy hour with the genial Campbell the reporter left with the impression of the man and his establishment which he has written here at length.

JACK BURDEEN'S SPRUCE.

On the north side of one of those foaming pitches which make the lumberman dread the West Branch (Penobscot) worst of all the Maine waters, there stands a smooth, black spruce, in the bark of which are cut the words:

Jack Burdeen,
drowned here,
spring of 1868.

Six years ago.

The letters are still legible, though the tree has healed, and will ere long outgrow the scar. And thus the memory of poor Jack is fading out. He had been on the West Branch two springs. Though only eighteen, he was the most muscular man in the whole gang; the tallest, and had the quickest eye and surest hand; and added to these, a good heart, and as true as steel. Every man on the drive loved that brown, kindly face. And the very way he lost his life, too, came of his generous spirit, and his way of putting himself ahead to keep the other fellows out of danger.

We were on Churchill's drive—the last drive of the season. There was nigh two million feet of lumber, and we were short handed to work so many logs through all the pitches at once. It got strung out a good deal, and that made it worse. For two weeks not a man of us had taken off his clothes. We didn't get over an hour's sleep a night, on an average, and we slept in our wet clothes, anywhere we could catch a moment.

Jim Madigan, Jack and I, were together when the word was passed back that the logs had jammed on the "suck hole" pitch, about two miles below. All hands were called to break the jam. We hurried down the bank.

This "suck hole" is one of the worst places on the stream. When logs jam there it was next to impossible to get down to them; for on both sides there are almost perpendicular ledges, fifty and sixty feet high. The current here is like an arrow. The

"pitch" is at the foot of the rapids. It is a fall of thirty or thirty-five feet, at a plunge, into a hole of great depth, which whirls like a maelstrom. Right in the throat of the rapids, just where the torrent bends over the ledge, there is what the drivers call the "center rock," a point of the ledge rising above the water. The logs are apt to strike and hang on it. So downright and forcible is the plunge of the waters, that logs thirty feet long have struck on this rock and been driven in twain from end to end.

When we got down there that day the situation was bad enough. One of the big pine sticks, forty or fifty long, and four feet through had hit against the center rock, and swung around to the north side. There it hung, with the foam flying over it, springing and buckling like a steel bow. Every minute the logs came down, and striking with a dull, heavy thud, added their weight to the pressure. When we got there, the whole channel for a hundred rods above the falls, was jammed full of logs. clean to the bottom of the river, and a vast pond of dead water was thus dammed and held back.

All the men were on the ledges, on the north side, looking down into the abyss, and the boss (Wheeler) was tearing around like a mad-man. I could see his lips fly, but not a word could be heard above the deadening roar and the thunder of logs tumbling over one another.

The volume of water is enormous at this season of the year, when all the six feet of snow in the woods is melting. I never saw a wilder scene.

The boss was calling for volunteers to go down and start off the big pine log. There were plenty of brave fellows in that gang, but each one hesitated.

"It's sure death," they all said.

When the jam started it would go through like an avalanche. There would be no time to climb out of the

gorge. Whoever was down there would have to go with it. The boss did not like to order the men to such duty, yet the jam was getting worse every hour, and he would probably have done so but for Jack Burdeen. Jack had been looking at the jam, and had struck out a plan for cutting away the pine stick. I have always thought the brave fellow did it rather than see any of the rest sent down there. His plan was to stretch a warping line from ledge to ledge, directly over the falls, with a gang of men on each side to draw it tight, or let it out, at the word. He would take his axe, he said, and go out on the hawser until he was directly over the log; then we might slacken the rope and let him down to it. He would cut it till it broke, then catch hold of the rope, and we could pull him up and draw him ashore. After some talk this project was adopted.

One end of the six hundred feet of warping line was taken across the river, and twenty men sent over to handle it.

We paid out the line, and the party on the other side drew him over the abyss. It took strong nerves to face that frightful gully and not turn giddy. We let him down till his feet touched the trembling log. So violently did it bend and spring, that it was with great difficulty he kept his footing on it.

Adjusting the rope, he raised his ax. The bright blade gleamed in the narrow chasm as he struck it deep into the green log. Once—twice—three times. It cracked. He threw the ax. A mighty crash rang up, like the roar of an earthquake beneath our feet.

The jam had started and was going! But Jack had caught the line. We jerked him up—up. It was all done in a minute. One great log, ending over like a billet, barely missed his legs. We worked with might and main.

Too late! Another and longer

log, whirling over, struck the line and whirled him down with it.

Gone? Gone to death like a flash! Gone through the falls!

A groan a cry of horror, from the great, rough human hearts on both sides of the river, blenched with the "Too Almighty Bad!"—his epitaph.

But the jam was out.

We searched long in the "suck hole," and farther down. No trace of poor Jack was ever found.—*Portland Transcript*.

HURON BOOM COMPANY.

Election of Directors for the Ensuing Year
—Some Interesting Figures of Work Accomplished.

The annual meeting of the stockholders of the Huron Log and Boom Co., was held in this city, at the office of Eddy, Avery & Co., on Wednesday, at which the following directors were elected for the ensuing year: Edwin Eddy, Sewell Avery, F. Johnson, S. J. Murphy, J. F. Eddy. The company was organized Feb. 16th, 1864, with a capital stock of \$25,000, and operate on Cass River. During the past season 239,850 pieces were rafted out, scaling 48,000,268 feet. The company employed sixty men. The following figures show the amounts rafted out by the company during the years named:

	Feet.
1864.....	40,000,000
1866.....	71,789,530
1867.....	74,648,300
1868.....	83,740,854
1869.....	71,175,970
1870.....	60,942,233
1871.....	55,841,618
1872.....	99,913,915
1873.....	100,458,140
1874.....	48,000,268
Total.....	706,405,528

—*Saginaw Courier*, Jan. 15.

The Sheriff sold 1,000 cords of pine slabs belonging to L. M. Pierce, at public sale the other day for 25 cents per cord.—*Oconto Times*.

LUMBER.

The Product of the Chippewa Valley, Wis., for 1871,

We are indebted to the Eau Claire (Wis.) Free Press for the following statement of the lumber manufactured in the Chippewa Valley for 1874. The report for District No. 3, 6 and 7 are official, while the balance is based upon last year's report, and is rather under than over the amount cut:

LUMBER STATISTICS.

The following is a statement of the logs scaled at the different mills in Lumber District No. 3, during the season of 1874, manufactured into lumber, lath, and shingles:

	Feet.
Daniel Shaw & Co.	15,745,025
I. & K. home mills.....	15,950,350
I. & K. Marston Mills.....	4,412,581
I. & K. Eddy Mills.....	3,802,413
Smi'h & Buffington.....	3,234,953
Prescott, Burdett & Co.....	7,640,672
Ellas Tarrant.....	5,075,018
N. W. Lumber Co.....	15,183, 35
Carmichael & McGuire.....	1,270,581
Boyd & Sherman.....	3,549,788
W. B. Estabrooks.....	1,468,912
Merideen Mill Co.....	5,645,903
Bryse & Fuller S. M.....	244,781
Durand Mill.....	815,598
Barlow & Vedder S. M.....	313,822
Sall & Lally.....	3,188,475

Total number of feet.....92,282,664

DISTRICT NO. 6.

Union Lumber Co.....	43,000,000
A. Huyssen.....	4,000,000
French Lumber Co.....	8,000,000
John Barron & Co.....	19,600,000
John Robson.....	12,000,000
Wheton Lumber Co.....	3,000,000
Stanley Bro's.....	4,000,000

84,000,000

DISTRICT NO. 7.

E. C. L. Co., Lumber.....	44,500,000
" Lath.....	11,000,000
" Shingles.....	11,000,000

MENOMONIE RIVER.

Knapp, Stout & Co., Lumber.....	55,000,000
Jewett & Co.....	7,000,000

EAU GALE RIVER.

Carson & Rand.....	10,000,000
Total Lumber.....	298,782,674
Lath and Shingles, about.....	25,000,000

The Beef Slough Log Driving Co., during the past year, has rafted 133,000,000 feet of logs, which have been distributed along the Mississippi, from Winona, Minn., to St. Louis, Mo.

OTTER LAKE.

The Business in Logs and Lumber at Otter Lake and Vicinity.

From the Saginaw Daily Courier.

C. B. Benson, of this place, cut in 1874, 9,000,000 feet of lumber and 4,000,000 shingles. He closed his mill on the 10th of August for want of logs. He has put into Otter Lake this season to date, 8,500,000 feet of logs, and intends to increase to 12,000,000 feet. His mill is located on Otter Lake, and has a day capacity of 18,000,000 feet per season. He runs two of Munn & Co.'s celebrated gangs, one 72-inch circular, and one mular. Lumber now in yard, 4,000,000 feet.

Hon. J. W. Begole, of Flint, has a saw and shingle mill located one and a half miles north from here on the Detroit & Bay City railroad. The capacity of the mill is 3,000,000 feet of lumber and about the same quantity of shingles. This mill cut in 1874, 2,000,000 feet of lumber and 3,000,000 shingles; had no logs left over. He is putting in a full stock this winter. Six and one-half miles east from here Messrs. Lawrence & Richmond have a mill of say 2,000,000 feet capacity; they are putting in 500,000 feet of logs.

Messrs. Hunton Bros., of Otisville, Genesee county, cut 4,000,000 feet of lumber last season, besides about 3,000,000 shingles. They are putting in 5,000,000 this winter, which is about the day capacity of their mill, besides, of course, 3,000,000 to 5,000,000 shingles.

Messrs. Avery & Murphy, of Detroit, are putting about 6,000,000 feet of logs into a tributary of the Cass river.

The average wages paid in this section in the woods is \$24 per month; teams, \$2.50 per day.

S. O. S.

OTTER LAKE, Lapeer Co., Jan. 29, '75.

WILLIAMSPORT LUMBER.

Review of the Traffic for 1874—Shipments from Williamsport and Other Points

We are indebted to the Williamsport (Pa.) Gazette, for the following exhibit of the lumber passing out of the West Branch Valley during the year 1874. From this it will be seen that Williamsport manufacturers have sent to market 236,806,289 feet, a decrease of only 6,656,200 feet as compared with the business of 1873. How much of this lumber remains on hand unsold in the markets below, we have no means of knowing—we only know how much has been shipped. Manufacturers commence the business of 1875 with nearly sixty-six and a half millions less stock on hand than they did in 1874. The total stock on hand now is only 160,516,596 feet, with no logs in the boom and comparatively none in the mill pools.

At this season of the year when manufacturers and dealers are taking an account of stock and settling up their business, the operations in lumber are unusually light. There are few if any inquiries for lumber just now, and the trade virtually flat—more depressed, perhaps, than it has been for years. Owing to the condition of affairs, manufacturers expect to do but little before March, when it is hoped there will be a fair demand for lumber, and a revival of business generally. Following is a

GENERAL SUMMARY.

1874.	Cars & Boats.	Feet.
Shipments over Cat. road.....	9,797	92,710,348
“ “ P & E road.....	7,409	71,424,984
“ “ Canal.....	813	72,670,957
Total for 1874.....	18,019	236,806,289
Total of 1873.....	21,155	243,462,489
Decrease in 1874.....	3,136	6,656,200
STOCK ON HAND JAN. 1, 1875.		
		Feet.
Stock on hand Jan. 1, 1874.....		226,942,276
Rafted out of the boom in 1874.....		180,734,382
Logs from Lock Haven by canal, 126,931,25,386,200		
Total for 1874.....		433,062,858
Shipped in 1874.....	236,806,280	
Destroyed by fire.....	25,000,000	
Logs sent below, 53,700.....	10,740,001	272,546,289
Stock on hand Jan. 1, 1875.....		160,516,596

The difference between the amount

shipped and rafted out of the boom in 1874 is 56,071,907, which, with the stock on hand at the commencement of last year and deductions for the amount destroyed by fire, and logs rafted down the canal to Munson, Watsontown, Northumberland, and Selinsgrove, leaves the stock on hand January 1, 1875, 160,062,858 feet, as expressed in the table above. These figures have been obtained from the books of the railroad companies, the canal and the boom company, and are sufficiently accurate for all ordinary purposes.

With reference to the amount on hand, the two years compare as follows:

Stock on hand Jan. 1, 1874.....	227,942,276
Stock on hand Jan. 1, 1875.....	160,516,596
Decrease in one year.....	66,425,707

The boom is empty, and very few logs remain in the pools; consequently, if the manufacturers adhere to their resolution of last fall to cut a light stock this winter, there is nothing to prevent them from reducing the amount on hand to a small figure during the present year.

COMPARISON OF SHIPMENTS.

The shipments by rail and canal from Williamsport, compare with 1873 as follows:

	1873.	1874.
Canal.....	66,124,329	72,670,957
Cat. railroad.....	107,033,400	92,710,384
P. & E. railroad.....	70,304,760	61,424,984
Totals.....	243,462,489	236,806,289

While the canal shows an increase of 6,546,628 feet over the operations of 1873, the Catawissa road shows a decline of 14,323,052 feet, and the Philadelphia and Erie an increase of 1,120,224 feet.

SHIPMENTS FOR SIX YEARS.

The following table will show the total shipments from Williamsport from 1869 to 1874, inclusive:

Years.	Feet.
1869.....	186,676,850
1870.....	250,764,078
1871.....	269,863,392
1872.....	198,506,702
1873.....	243,462,489
1874.....	236,806,289
Total.....	1,386,079,800

Here we have the enormous total of a fraction over one and a quarter billions of feet of lumber shipped from this city alone

within a period of six years. This lumber would average \$18 per 1000 feet, which would yield the handsome sum of over twenty millions of dollars.

BOOM REPORT.

There were rafted out of the boom at Williamsport for the year embraced in the table below, the following logs and feet:

Years.	No Logs.	Feet.
1862.....	196,958	37,853,651
1863.....	405,155	76,475,826
1864.....	511,548	96,595,681
1865.....	339,362	72,421,468
1866.....	613,373	118,811,494
1867.....	833,329	173,196,511
1868.....	853,663	165,388,389
1869.....	1,180,511	223,660,306
1870.....	1,099,777	225,180,873
1871.....	852,129	166,661,181
1872.....	1,484,103	297,185,662
1873.....	1,582,460	328,342,712
1874.....	989,586	180,734,382
Total.....	10,841,918	2,091,938,226

Estimating four logs to a tree it required 2,710,480 trees to furnish the stock for the thirteen years embraced in this table. This will give the reader a pretty fair idea of the rapid denudation of our forests for lumber purposes.

SHIPMENTS FROM ALL POINTS.

The amount of lumber shipped from all points, from Williamsport to Renovo, and from the Lycoming creek region, as far up as Troy, is as follows:

	Feet.
From Williamsport.....	236,806,289
From Lock Haven.....	35,000,000
From Renovo and other points.....	9,331,810
From Lycoming Creek region.....	12,345,360
From Pine Creek, Jersey Shore and Larry's Creek.....	4,839,455
Total.....	298,322,984

Growing Scarcity of Black Walnut.

It is stated that the supply of black walnut, of late years so much used for nice cabinet work and house furnishing, is not more than sufficient for the probable demand of the next ten years, and within a few years of its value being discovered the wood is almost extinct. Indiana produces the best specimens of the wood. Before it came into such general use, it was made to duty as fence rails in that state, its durable qualities making it especially valuable for that purpose. Good walnut is found also in Kentucky and western Ohio. That obtained in other regions is of inferior quality. The wood is not used so lavishly in present times as when it first became popular, 1,000 feet being made to go as far again as it did a few years ago. Where veneering can be used, it is rare that the solid wood is worked up.

OUT OF THE WOODS.

The Grand Rapids, Greenville and Alpena Railroad Project.

The name of the projected railroad from Alpena to Grand Rapids, via Greenville, is now called the Alpena & Southwestern Railroad. The Detroit Post, in a recent article, says that the western terminal point of the road is Grand Haven, which is to make the road 240 miles long. It is to cross the J. L. & S. R. R. at Beaver Lake, in Ogemaw county, the F. & P. M. at or near Farwell, the Stanton Branch of the D., L. & L. M. R. R., at or near Milbrook, in Montcalm county, the main line of the D., L. & L. M. R. R. and then—well, from there the Post is not clear, except that the terminal point is to be Grand Haven. The Post says there are 16,000,000 feet of pine on the line that will naturally seek that road as an outlet, or that the road, in hauling the pine within five miles of it, in hauling five trains a day of thirty car loads per train, 10,000 feet per car, will have work for seventy-six years of two hundred days in each year. Of it the Post further says:

A contract has been let to Amos Wright & Co. for grading, bridging and tying thirty miles of the road bed, commencing at Alpena and running in a southwest direction. By the terms of the contract, this work is to be completed by the first of April. They have a force of 100 men on the job, and have already completed four or five miles out from Alpena. If the thirty miles are completed on time and in good shape, it is the intention of the officers to make a second contract with Wright & Co. to build forty miles more, which will bring this road to the intersection of the Jackson, Lansing and Saginaw road, at or near Beaver Lake, in Ogemaw county. With the road-bed completed and tied from the Jackson, Lansing and Saginaw to Alpena, there will be no difficulty

in securing iron and rolling stock. The company have already a fair proposition, but will enter into no arrangement until the road is ready for the iron. The whole distance is seventy miles, and the present expectation is that the road will be built and in running order by a year from the coming spring. The estimated expense of preparing the road-bed is \$200,000. Alpena has already made a liberal subscription, which it is expected will be increased, and the remainder will be subscribed by the owners of pine lands along the route. —*Saginaw Daily Courier*.

THE LUMBERMEN'S REMONSTRANCE.

Distasteful and dangerous as the reciprocity treaty drafted by England and presented by Canada is, it has served the purpose of acquainting many interests in other states with their close identity to those in Pennsylvania, and convincing the west as well as the east in the progress of the debate that some of their most important concerns are brought in jeopardy by the instrument most feared here, and yet said by its advocates to be not only innocuous, but beneficial everywhere. The lumbermen have become fairly aroused, not by glowing appeals, but by careful examination of statistics; and the memorial addressed to Congress by the special committee chosen by the National Association of Lumbermen at their annual meeting at East Saginaw, Michigan, two months since, is a document that shows the importance of the business and the injury with which it is threatened very clearly.

The report, quoting the last census, says that the 25,835 establishments for sawed lumber in all the states have 11,204 steam engine, 314,884 horse power, in addition to 16,562 water wheels, of 326,781 horse power; that they run 63,197 saws, employ 149,997 hands, have \$143,-\$493,232 capital invested, pay \$40,-

009,162 for wages, and \$103,343,430 for materials, and produce \$510,159,-327 annually. Six states have more than one thousand of these establishments each—Maine, 1,099, Michigan, 1,371; Indiana, 1,861; Ohio, 2,230. New York, 3,510; and Pennsylvania, 3,739. These establishments annually pay \$28,000,000 for the products of home manufacturers and mechanics and \$35,000,000 for farm produce; and are intimately connected with great investments in woodlands, with railways and less inter-sts. The business is shown, by the facts given, to extend along the whole line of northern states; more than half of the whole product, \$112,949,237, coming from Maine, New York, Pennsylvania, Michigan, Wisconsin and Minnesota; though the southern states, owing to their wealth of pine, pine, live oak, and other lumber, have as material concern as any.

The Association accept an estimate of standing pine and hemlock in twenty states at 325,000,000,000 feet; of which Michigan and Wisconsin have 50,000 millions each; Minnesota and Texas 25,000 millions each; and Pennsylvania 7,000 millions. California is credited with 100,000 millions, and the Dominion with the same amount. At the Saginaw meeting it was estimated that there are 3,600 millions feet of pine in Pennsylvania; 7,000 millions of hemlock and 4,000 millions of hard wood sawlogs — 14,600,000,000 in all. The southern supplies cover 78,125 square miles, and are now just beginning to attain their proper value. The annual losses by forest fire destroy \$15,000,000. The cost of making the lumber necessarily varies with the various conditions. It was \$12.25 per thousand feet in Saginaw valley in 1869-'70, when the price was only \$12.93½; and this insignificant margin has been reduced, and often entailed loss since; while the manufacture of all that field, pays but 6¼ per cent. on the investment, and leaves a profit of only one-half the

low tariff on Canadian lumber, excluding the taxes and fire risks. And in Canada labor is one-quarter less per thousand feet, and other costs are similarly diminished.

Here, too, it is particularly noticed that a great amount of salt is annually made by works adjacent to the saw-mills that use their steam or refuse slabs and accordingly reduce the cost of good lumber by this market for waste, and the cost of salt by the convenience of cheap fuel. There are a million and a quarter of persons drawing their livelihood directly from the business, aside from 20,000 sailors and those who are employed by the railways. If the business itself is killed their support goes with it. Those who are now engaged in the various branches of the lumber interest—chopping, transporting and manufacturing—pay \$34,500,000 for farm produce annually, while all Great Britain imported but \$60,000,000 of provisions and breadstuffs last year—making this domestic industry more than 50 per cent. of all the British in its direct returns to farmers, aside from the incidental and general uses. The whole business of Canada is of less value to this country than this one item.

The Canadian forests adjoin our own and are all but illimitable. The Ontario government alone has 3,650,000 untouched acres in one region, and the residents near there have calculated its value at a great profit if our market is surrendered to them. In 1872 two provinces alone exported \$8,774,760 worth, and the next year sent \$6,495,000; the government selling the use of great plots at \$2 per square mile, insuring itself and providing the lessee with many facilities, while that which costs the Canadians only two dollars to hold costs \$96 for taxes here.

With such specific facts, some of which are new and some procurable only from those directly concerned in the business, the memorialists and

others more general, a portion of which were taken from the columns of the *North American* or similarly prepared from the same data. They examine the commerce between this country and the Dominion at different times before, during and after reciprocity, showing that under it the balance in our favor fell 33 per cent., and was only 3 per cent. when it had been 36, 43 and 62 per cent. and in the twelve years ending with 1866, under reciprocity, the per cent. of balance of trade grew against us and in favor of Canada more than at any previous time, and at the term closing with last year attained a balance against us. The memorial closes with an argument that the treaty is unconstitutional and violates treaties with other nations.

The Lapeer (Mich.) *Clarion* says that John Coulter, of Mayfield, Lapeer county, has a contract for putting five million feet of logs into the Flint river for Messrs. Busenbark & Stone, of Flint. He has a million and a half now cut and skidded. He will probably put in two million feet this winter, and the remainder next. Brown & Maracle, also of Mayfield, will put in two million feet of pine for the same firm this season. S. S. Lee, lumbering in that vicinity, has a contract for putting two million feet in Gravel creek for a Flint firm, and eight hundred thousand feet for Mr. G. A. Wilcox, of Detroit.

The Oconto Company shut down their planing mill and box factory last Saturday, and they will not be started up much before spring. This throws some 65 men out of a situation at a time when they can ill afford to be idle. The majority of the men will go to the woods and return when work is resumed.—*Oconto Times*.

LUMBERMAN NOTES.

Briscoe & Lockwood, of Flint, Mich., are sending 500,000 feet of common boards to Rio Janiero, South America.

There is still an insufficient amount of snow in the pineries for successful logging purposes. It is so light as to mix with the sand and make hauling almost impossible.

The aggregate amount of manufacturing done by the mills at Lyons, Iowa, during the season of 1874, was 23,500,000 feet of lumber, 5,960,000 shingles and 4,598,000 lath.

Heretofore the fast freight lines have received from the various railway companies $1\frac{1}{2}$ per cent per mile for the use of their cars. On Feb. 1, however, the rate will be reduced to one cent a mile.

Messrs. Begole & Fox of Flint, Mich., have purchased the largest circular saw ever brought into the state. It was manufactured in England, is six feet four inches in diameter, and has 50 teeth.

The large saw mill of Wm. Glue & Co., Muskegon, Mich., which was burned last fall, is being rebuilt directly upon the old site, but is now owned by Messrs. Bushnell, Walworth & Co., of Chicago. The new mill machinery is furnished by the Fulton Iron Works, of Detroit.

There has been shipped from Montreal to South America lumber of rather coarse quality as follows: 1870, 25,145,183 feet; 1871, 16,005,935 feet; 1872, 28,234,965 feet; 1873,

36,073,919 feet; 1874, 16,262,293; by six Michigan firms principally. This year shows a large falling off and as a uniform loss of \$3.00 per M was realized on sales, the probability is that less will be placed on that market another year.

The Hon. Mr. Skead, Dominion Senator, and one of the most extensive lumbermen in Canada, estimates the pine reserves of our neighbors as follows: In the Ottawa Valley, partly in Ontario and partly in Quebec, there are, of timber limits, 87,761 square miles. In the valley between Kingston and Trent there are 2,350 square miles; in the Trent River Valley there are 6,200 square miles; and in the Huron and Superior territory there are 60,800 square miles, making a grand total of 94,350 square miles.

In the present dullness of the lumber market and the temporary hiatus in pine land transactions, it will be gratifying to owners of standing pine timber to learn that it has some other value than that wrought out through the monotonous saw-log process. The latest discovery of chemists, says an item in the *New York Sun*, is the existence of the active principle of vanilla in the bark of the pine tree. It is recovered by distillation, and an ordinary tree will yield about \$20 worth annually without destroying it. It is now being manufactured in Germany, but will not for some time displace the genuine article, its chief value probably being as an adulterant for vanilla itself.

Subscribe for THE LUMBERMAN.

LUMBER TRANSPORTATION.

Green vs. Dry—Rough vs. Manipulated or Dressed.

In a series of articles we have followed the subject of lumber and shingle manufacture, and at this time propose to consider the subject of transportation. It has, as remarked in a former article, always in the past been considered the duty of the wholesaler in the great distributing marts, to lay in stocks and hold until seasoned for use. As almost the entire retail trade in lumber is confined to that in a seasoned condition, it followed that the wholesaler was compelled, in former days, to lay in stock a year ahead, in order to satisfy his customers, who, purchasing for retail trade, could depend only on sales of a seasoned article, and were often of a class of small capitalists who could not afford to hold over until their stock should become marketable, but must purchase it in that condition. Until the ingress of railroads into the timber country, and for some time after, it was not thought possible to freight the commodity of lumber except on vessels, and he who transported by rail was looked upon as being in an emergency, where time and not expense was the principal element to be considered. Freights by water are not increased by the lumber being green, the increased weight not being taken into account, except a "good luck" of a vessel captain to get a cargo of dry. But in the changed condition of things, since the rail track has penetrated our forests, and enterprising men have built on their lines, the item of weight has become a most important one. Every mill so built is dependent upon the railroad to move its products, even if it be but for a few miles to the nearest shipping point, and in the new demand which by the multiplication of small retail dealers throughout the country, has sprung up, it has now become a ques-

tion of importance whether, when once loaded, the lumber might not better be kept moving until it reaches the place of its final use. But retailers cannot use green lumber, and if they could the difference in freight on a railroad, between dry and green, amounts to a large profit, and so it has become imperative upon the mill owner to season his stock, thereby insuring more ready sale and less expense of delivery, for disguise it as we may, any increase in freight comes out of the manufacturer, and it is little to be doubted that in many cases it is as well charged to the consumer, the middle man or retailer taking double toll, first in his legitimate profit, and second, by adding what extra it cost the manufacturer to freight it. To this we would not object, if he would refund to the manufacturer, but we have never yet known of this being done. Men who operate inland on the lines of railroads are generally men of small means, and are little able to hold over large stocks to dry out, and we find that many such operations are brought under the hammer and go into the hands of more able operators. These pile and sort their stocks so as to ship to the best advantage, and the practical advantages gained are that of green lumber only about 6,500 can be loaded on a car at an eleven ton rate, while of seasoned lumber 9,000 to 10,000 feet can be loaded, or from 40 to 50 per cwt. additional. If the lumber be manufactured into flooring or siding, or surfaced, as is by many now being practiced, by the erection of factories at their mills, the item of transportation is still further reduced, inasmuch, as 11,000 to 12,000 of such lumber well seasoned will go on a 10 ton rate without excess. It is a matter of easy mathematics for a man to decide how much the interest has been upon his money laying idle in the pile while the lumber seasoned, offset by the advantage gained in freights, if simply held for seasoning,

or in addition the profit on the finer manipulation if this has been performed. The item of local vs. through freights is also to be considered in this connection. Local freights are usually from 60 to 80 per cent. higher for given distances than are through rates, or rates on cars going to other roads. Thus we may cite the policy of one of our local roads, which charges \$25 per car of 11 tons for a distance of fifty miles over its track, and 100 miles over another road for three dollars additional, or \$28 for 150 miles. That there is any justice in this, no one pretends, but it is an evil which exists, and which it is hardly to be expected to overcome. To remedy excessive freights and enormous and unjustly excessive rates on overweight, we can suggest but one remedy, viz.: season your lumber thoroughly, work it fine as you can, and ship as far as possible, after weighing the cars on scales in your own yard.

The market for the lumber of the northwest is bounded only by the capacity of carrying facilities. A firm at Flint, Michigan, is reported as having just received an order for 500,000 feet of common twelve-inch stock boards, to go to Rio Janeiro, South America. The lumber will be shipped immediately by rail to Portland, Maine, and thence by vessel to its destination. — *Toledo Democrat*, Jan. 18.

About 60,000,000 feet of logs have thus far been cut and banked by the various mill companies on the river, and it is expected that about 70,000,000 more feet will be put in provided the season lasts long enough. Only about 8,500,000 feet of logs were left over, of last season's cut. — *Marinette Eagle*.

Lumbermen in this, and adjoining counties, are making things lively now in the woods and around their mills. — *Oconto Times*.

Circumstantial Evidence.

In Phillips's "Famous Case of Circumstantial Evidence," published by Estes & Lauriat, Boston, last year, is to be found, on page 132, a case which has a bearing on the one now in progress in Brooklyn. John Hawkins and George Simpson, of England, were indicted for robbing the mail April 16, 1872. Hawkins in his defense set up an *alibi*, to prove which he called one William Fuller, who deposed that Hawkins came to his house on Sunday, April 15, and lay there that night, and did not go until the next morning. His proof was that Hawkins had owed him for horse hire, had paid him on April 10, receiving a full receipt; and he well remembered that Hawkins lay at his house on the Sunday night following. The receipt was produced. "Who wrote this?" said the judge, eyeing it suspiciously.

"Hawkins wrote the body and I signed it."

"Did you see him write it?"

"Yes."

"And how long was it after he wrote that you signed?"

"I signed it immediately—without going from the table."

"How many inkstands do you keep?"

"But one."

"Then you signed with the same ink as Hawkins?"

"For certain."

The Judge then, with an air of huge discernment, showed the jury that the body of the receipt was in one color of ink and the signature in another, and thus sought to impeach the witness. Fortunately for the accused a gentleman noticed that the reporter of the trial wrote part of his manuscript in pale ink and part in black, according as he dipped into the surface of the fluid or into the muddy bottom. The Judge had to acknowledge the point when presented, and the witness was cleared, though the judge said snappishly to the jury, "you ought not, gentlemen, to take notice of anything but what is produced in evidence."

Politics are demoralizing everywhere. An ex-employee of the Custom House, named Said, recently attacked a young woman, who was walking in a vineyard at Bethlehem, Palestine, and, having put out her eyes, cut off her ears and decapitated her, took every article of value no her person and escaped.

AFTER DINNER ELOQUENCE.

What Mr. W. M. Grosvenor of The St. Louis Democrat Has to Say of the Press, and Its Connection with the Prosperity of St. Louis—A Quiet Crow over Chicago.

Like heaven, the press helps those who help themselves. You must make the fact before we can tell them. If you let business slip through sleepy fingers, we owe it to you to say so. Some men who have sharp-tongued wives say that they are great blessings. Do not forget that if, in its warnings and comparisons, the press sometimes blunders and often scolds, it has as deep an interest as yourselves in your prosperity. In order to succeed, each must serve the public; we, by telling the truth; you, by removing, as fast and as far as possible, the barriers of time and distance, risk and exchange, which separate the producer from the consumer. In proportion as you excel other cities in this great public service, you achieve success. In proportion as we tell the truth, we serve both you and ourselves.

Working thus together, we have done pretty well for St. Louis within ten years. Instead of 200,000 we have 500,000 inhabitants; our commerce has more than doubled—our manufactures more than trebled. Like our solid city, this growth is founded upon rock, and not upon sand. No other city can show as good a record for the last year of commercial disaster; no other can boast fewer instances of mercantile dishonor. Last year the aggregate bank clearings of New York were smaller than in any year since 1863, while St. Louis gained 10 per cent, over the largest year previous. New York merchants brood over the loss of wholesale trade which St. Louis has captured, for this city can sell quite as cheaply, and ten days nearer their customers. Chicago erects 750, New York 1,300, and St. Louis 1,809 substantial buildings yearly. The clearings of Chicago last year were \$1,100,000,000, a gain of less than five per cent., while those of this city were \$1,215,934,855, a gain of more than 10 per cent. Since 1870, the bank clearings of this city have increased 60 per cent., and those of New

York have decreased 25 per cent.; since 1860, New York has lost in clearings 44 per cent., and St. Louis has gained 100 per cent.

The cause of this progress is a marvelous improvement by our business community in its ability to serve the public—improvement which the press has constantly sustained and often prompted. Ten years ago, St. Louis handled grain in bags, had one elevator, which connected only with the drays, had not learned to smelt iron, brought ore from the mines over rails made in Pittsburg, ferried cattle over the river in droves, and was little more than a way station in reshipment of cotton from Memphis.

What a dear old conservative city it was! It was afraid that elevators would ruin the drays, that stockyards would ruin the packers, that barges would ruin the boats, and that a bridge would ruin everything.

Figaro's Frolics.

Arsene Houssaye's last Paris letter to The New York Tribune contains some delicious bits of French wit. M. de Villemessant, the editor of The Figaro, passes for a lucky man in Paris, and a man of wit. His personality is very useful to his paper, and with his 80,000 subscribers he knows how to manage the public. Lucky he has been at every game of life except Trente et Quarente, and Baccarat; witty he always is. Recently, in the green room of the Theatre Francais, Mlle Favart ran up to him: "M. de Villemessant! how can you permit such calumnies? Your Figaro says I am forty years old." "Well," answered Villemessant, gayly, "kiss me as many times as that estimate slanders you." Mlle Favart threw herself on the neck of M. de Villemessant and kissed him ten times, distributing the favors equally on his two cheeks. "Very well," said M. de Villemessant, "hereafter the Figaro will tell the truth, and instead of forty years, will give you fifty." And all the actors in the green room stood laughing about the burly journalist and the great coquette.

The promising bay mare Ristori, by Goldsmith's Volunteer, the winner of several purses at East Saginaw, Grand Rapids and Jackson, has been purchased as a broodmare by Mr. W. H. Wilson of Cynthia, Ky., for \$650. Ristori met with an accident at Columbus, O., last July, which rendered her useless for trotting purposes on the turf.

TALK WITH AN ENGINEER.

Work of The Men Who Send us Along on Our Travels.

**Watching the Monster With Iron Lungs
and Steel Arms—Where the Responsibility
Lies—Characteristics of Firemen and
Coal Passers—Interesting Incidents.**

I leaned over the half door of the engine-room of a steamer lately, looking in at the puppet-like movements of the lifting rods as they alternately rose and dropped again obedient to the long toes that operated them. First one would arise, and a second or so after its fellow on the other side followed suit; then they dropped into place again and the other pair took up the burthen and carried it on, and between all rose the sharp rasping ye—au—gh—ya! ye—aw—gh ya! of the steam exhausting from the cylinder into the condenser. While admiring the nicety and noiselessness with which the vast machine moved, a voice at my elbow made me start with its unexpectedness.

"Won't you walk in?" inquired the engineer.

Seeing no good reason why I should not, I walked in and we sat down on a long leather-covered seat that run across the end of the room. In this position the whole front of the machine was directly in sight, and I sat without speaking. I had an idea, how obtained I know not, that engineers as a class were surly fellows, and that the way to curry favor with them was to be sententious and rather surly yourself. "Like likes like," I argued; quite erroneously, however, as events proved. I didn't wish to abuse the hospitality of my host by being too talkative on short acquaintance so I sat still.

"You are a newspaper man, are you not, sir?" said the engineer.

"Very slightly," I replied.

"I thought so. I saw you once on a new steamer I was taking out, and knew

you as soon as I saw you leaning over the door. We like newspaper men."

"How so?" I asked. "For what reason?"

"Well, they're always kind o' civil to the trade in the paper, and generally do the square thing by us in reports, so we try to return it when we get a chance; only sometimes they make awful mistakes in reporting."

A SLIGHT DIFFERENCE.

"Not long ago a young man asked me for some particulars about the machine, and when I saw them in the paper the next day, with my name attached as furnishing the information, you better believe I was mad. I never heard the last of it from the boys. 'How about that cylinder, Bob, that's thirty-six feet long and twenty-six feet diameter?' That's the way I used to get it for telling the young man inches where he made it feet. Slight difference you better believe. You wouldn't do such a thing as that, sir! You know something about an engine yourself, don't you?"

"Well, I walked by a foundry once where they are built," I replied; "but tell me something about your life, and occupation: not very hard, is it?" "I have seen worse places than this engine-room on a cold night like this. I suppose when you once let on the steam, you are at liberty then for the time, and can read or smoke just as you like, and when you get to port you can go ashore and do as you like until the boat is ready to go out again." Boom, boom! went the heavy gong over head, and at the first grating of the wire which moved it, before the hammer struck the bell, the engineer jumped from his seat, grasped a handle sticking out of the rock-shaft, pushed it up a little and the motion of the engine at once slowed down; the long sharp roar of the exhaust was subdued to an asthmatic sigh, and the speed of the boat sensibly decreased. Bang, went the gong again, another man came down the iron ladder in

the engine room and stood by, while the engineer pushed the handle clear up again, took up the long bar that always stands in front of the machine, put it in the little shaft at the engine front, moved it up and down once, and the engine stood still. Then he looked up at the steam gauge, and at another which said "vacuum gauge" on it, and waited. In a moment the gong sounded again, the engineer opened the handle, lifted the bar, and the wheel began to turn; every time he moved the bar he watched the hook over the rock-shaft arm, and when it got in a certain position with relation to the pin in the arm he changed the motion of the bar up or down, and so the wheels moved without stopping. In another moment a harsh jangling bell, like an old-fashioned door-bell, struck; the hooks fell with a clang on the arm before mentioned, and the machine became self-acting again, with all its tremendous respiratory organs in full vigor.

HEAVY RESPONSIBILITY.

"There," he said, after glancing at the vacuum gauge a moment, "that's the best answer I can give you to one of your questions. You see we don't sit down all the while; not much. Sometimes these coasters are so thick in the channel that we have to slow down and stop pretty often; that's no great thing, it's the least of our duties; there's always something going on that keeps a man wide awake, or ought to. Did you ever think that the real responsibility for the safety of the ship and passengers rests right here with us? Well, it's so. The captain is all right to be sure, and when it's a clear night, and he is once well out of the narrow channel, he don't worry a mite, but right in here and down below, we have a magazine of force that is all the time under iron bonds to behave itself; trying hard to get out; a big Sampson that would pull down the house if you didn't keep it in trim. We are never sure, absolutely sure, that everything is all right; how can we be? We can't look inside of a beam strap—what you call the

walking-beam—and see if it is all sound. We know well enough when she is packed right, or takes steam right through her valves, top and bottom, and how far the steam follows the piston, but these are all matters of economy, not safety. We keep a close look out for all flaws and cracks in the shaft or parts that are under heavy strain, and we look out for all the fastenings to see if none of them work loose, but for all that accidents will happen. Only the other night I was up on deck looking around, and what should I see but one of the keys just ready to drop out of the starboard front link on the beam end. The links are those two rods that take hold of the beam and connect with the piston through the crosshead. If I hadn't seen it I might have had trouble, for all the strain would have come on one side of the crosshead and broke it off; and that just means all the way from \$10,000 damage up, with an engine of this size. I got a copper hammer, and every time she came down I hit her a clip, and got it back again all right without stopping her. Sometimes the bearings get hot and bother us, particularly if the heat works a good deal and throws us out of line; then we are apt to heat more than at other times."

ATTENTION TO BUSINESS.

"Smoking and reading newspapers! not much, I guess, on watch. I wouldn't read a newspaper on duty no more than I would go to sleep; nor smoke neither; it don't look just right to see a man with a cigar stuck in his mouth on duty. Drink! not aboard ship; what I do outside is nobody's business but my own; so long as I don't interfere with nobody, but on duty, no, sir!

"Then there's the boiler; that takes a heap of watching all the time. We have steam enough ordinarily, might say, when we don't want it; but there are times when we can't get it to save our souls; no more than enough to get along with. She fires hard. I never saw a boat yet that had too

much boiler; nor no other man. You tell the owners that, or the makers of the engines, and they will say, 'Oh, big boilers take up too much room;' and then they go and put in a little kettle with not enough fire surface in it, and burn coal enough in a year to pay for a decent boiler. The best made boilers in the world will bear a heap of watching. You know the engine pumps water into them all the while to keep up the supply. Well, the pumps will work all right for months at a time; first thing you know, of sometimes when you are in trouble about other things, the pumps will stop working, and you can't got a drop of water in her to save you, then you have got to look sharp. What makes it act so? What makes everything go wrong in this world; that's what I want to know; when it's once set right it ought to go right but it don't. Sometimes the check valves get held up, and the water don't go down in the boiler at all, but just surges back and forth from the pump pressure and the boiler pressure alternately; sometimes dirt gets under them, chips and things, then again joints will blow out in the band-hole plates and make a heap of trouble. No matter how trifling a thing is to us, it is sure to make a disturbance with the passengers, and that's what we have to avoid as much as possible, for they are easily scared.

THE FIREMEN.

"The firemen and coal passers make a heap of trouble, too, at times. They're a hard set, and get queer notions in their heads. You better believe they ain't particular about their mess, nor nothing! Men that never knew anything but corned beef and cabbage, and poor at that, turn up their noses at what they get here, which is the most of it just the same as cabin passengers pay a dollar a head for without grumbling. One day last week a procession of them came down the gangway, headed by one of the water tenders, with a kid

in his hand full of cold meat. They were all mad and ready to fight.

"'Luk at that, sur,' says the water tender, 'and see is it fit for a decent man to eat.'"

"'What's the matter with it?' said I.

"'Sure, it's that rotten it's all soft,'" says the water tender, 'and we won't be humbugged with rotten mate.'

"I looked at it and laughed till the tears ran down my cheeks. 'Get out of here, you fool,' I says to the man; 'don't you know tenderloin of beef when you see it? that's off the captain's joint; you'll get bull beef next time!'"

"They went away grumbling and saying they wanted mate that wouldn't 'let their teeth thru' every bite they gev it!'"

"There are times too when it's touch and go with a man for his life, and he has to think quick, and think right to save it. I was on a tug once as second engineer, and went outside to look over the guard with a long-nose copper oiler in my hand. The bulwarks were low, and just as I leaned over to take a look aft she gave a roll and pitched me over. Before I got in to the water I thought to myself my only chance is to catch that fender hanging over the side, for it was dark as a pocket. So I grabbed for it and struck it and it struck hard you bet, too, for we were going ten miles an hour. It was all I could do to hold on, and after that it was a minute or so before I could think what to do next. I never would have got out of that if it hadn't been for her stern setting in a sea that threw me up on the guard, so I could hold on and tumble inboard. It was the narrowest squeak I ever had in my life. When I got my breath I got up and into the engine room, and the first engineer looked at me with his mouth wide open.

"'Where the hell have you been?' he says.

"'Overboard,' says I.

"'Did you lose the can?' he says.

"'No, sir,' says I; 'hear it is. I held on to it all the time.'

"'Well, I'm damned!' he says, and that's all.

A LIVELY OILER.

"Sometimes we have young men out of the shop, learning their trade, who are anxious to get an engineer's berth, and are willing to take any place to begin. They have to go as oilers, which is, as you can see, the lowest in the engine room. I had one once who was the greenest youth I ever saw in my life. The guides have oil boxes on the cross-head, with wicks in them like lamp wicks, and these feed the oil to the guides, so that the latter are always kept lubricated. One day I noticed that the guides were getting dry, and I said to the oiler: "Run up, and pull the wicks out a little; they don't feed.' He went up, and a little while after I saw they were dryer than ever. 'Did you pull the wicks out?' I says to the young man.

"'Yes, sir,' he says. 'I pulled 'em all out and threw them overboard!'

How is that for stupidity?

"I must take a turn around now and see how things are going," said the engineer, and he left another man in charge while he went above, and I sought my stateroom and turned in.—*New York Sun.*

The billiard parlor at the Benedict House, Providence, R. I., was the scene of an unusual occurrence in this state on the 25th inst. A gentleman and lady unknown stopped there to dinner that day. After doing ample justice to the bountifully lay-out provided by mine host, they desired to be shown to the billiard-parlor, and, both selecting a cue, launched out for a game of 100 points, American four-ball. The lady showed at once that she was possessed with skilful touches, and quickly took her dutiful Benedict into camp, to the tune of three to one, after which this Amazon artist exhibited her skill at fancy shots, showing conclusively that if she did not know anything about billiards, she had traveled with a man who did.

SPORTING NOTES.

A tournament at 15-ball pool, is proposed at Brooklyn.

Mr. Bergh has commenced a crusade against clipping horses.

Arrangements are being made for the international rifle match to come off at Dublin next June.

It is stated that parties are willing to back Rudolphe in a match with Garnier to the amount of \$10,000.

Milton Nobles, leading man at Col. Wood's Museum, Philadelphia, has severed his connection with that establishment.

George E. Phelan will in a few days remove his ware-rooms from No. 7 Barclay street to a location a trifle farther north.

The Columbus, O., Driving Park Association purpose giving a four-mile heat race for running horses for a purse of \$3,500 or \$4,000, July 3d.

A professional tourney for \$1,500 worth of prizes is to be held at Samuel's in Brooklyn, early in March, in which Rudolphe, Vignaux, Garnier, Daly, Ubassy and the Dions will take part.

In the billiard tournament at Cleveland, Monday, Choate beat Bluim 200 to 188; Carter beat Thatcher 200 to 62; Gallagher beat Honing 200 to 198—the best game of the tournament thus far.

The Fordham Handicap Sweepstakes, Westchester Cup, Grand National Steeplechase, Juvenile Stakes, Post Stakes, Jockey Club Handicap and Annual Sweepstakes, all close on March 1st.

A colt, having the reputation of being the best colt Northern New York ever produced, has been sold by its owner, Mr. H. Spicer, of Perch River, to Eastern parties, for the round sum of \$13,000. This colt was sired by De Wolf's Glencoe Golddust, will be six years old next spring, and has never been handled by a professional trainer, but is considered to be very fast.

The bank bill has passed the German Reichstag.

California produces the finest honey in the Union, and will export this year 400,000 lbs.

The lock-out in the coal mines of South Wales has commenced, and 120,000 miners are idle.

The Queen's object in calling a cabinet meeting was to discuss the royal message to parliament.

Mrs. Emerson was run over at Concord, N. H., Saturday, while trying to get on a morning train.

The machine shops of the Memphis road at Argenta, Tenn., were burned Saturday. Loss \$30,000.

The Philadelphia Public Record says that the balloting for the Wisconsin senator, was done at Milwaukee.

Mrs. Van Cott is busy organizing revival meetings at Chicago. She has plenty of work on hand.

The out-cropping of a large deposit of plumbago has been discovered within five miles of Nyack, on the Hudson.

E. H. Redfield, while walking on the railroad track near Rochester, N. Y., Friday was run over by a train and killed.

Thomas Burns was pushed off the front platform of an Eighth avenue car, New York, last Saturday night, and run over and killed.

Mr. Rush Burgess, revenue collector near Richmond, V., shot and killed Cornelius Robinson while ransacking his house one night.

The American Fire Insurance Company, of New York, has given notice of withdrawal from the Board of Fire Underwriters.

The Titusville, Pa., Herald thinks the turning-point in the petroleum trade has come, when the consumption more than equals the production.

It is thought that the judiciary committee of the Maine Legislature will report a bill abolishing capital punishment in that commonwealth.

The date for running the first train through the Hoosac Tunnel has been "definitely fixed" for January 30. Eleven thousand feet of track remain to be laid.

can of 54,044 tons, against 54 American vessels of 55,478 tons. There arrived at Antwerp in 1874, 352 vessels from the United States, against in 301 1873.

The state police committee of Massachusetts, on Saturday reported a bill for the establishment of a state detective force, to exercise all the powers of constables and policemen.

Wintermute, who shot Gen. McCook in Dakota territory several months ago, was released from custody at Yankton, Saturday, and placed in the hands of the sheriff to await the action of the grand jury.

There is a swindler traveling through Pennsylvania who represents himself to be a government officer and frightens people into the belief that he is authorized to search their premises for counterfeit money. He steals it.

The amount of domestic whiskey in bond in the United States on January 1, was eleven million seven hundred and thirty thousand five hundred and thirty-eight gallons. This shows an increase of about two hundred thousand gallons over the amount reported December 1.

The invention for making paper barrels was patented about six month ago, and two factories are working, one at Winona, Wis. and one at Decorah, Iowa, the latter turning out 1,600 barrels daily. Their strength is said to be greater by four times than wooden barrels, only half the weight and costing 20 per cent less.

"Thus early in the year some of the editorial dead beats are arranging for their annual bumperatorial excursions, the two chief points of which are free eating and free riding. The Indiana "State Editorial Association" has made arrangements for a summer trip," saith the St. Louis Daily Globe.

TIMBER SUPPLY OF THE SOUTHERN STATES.

In a report submitted to the House of Representatives by Mr. Dunnell, from the Committee on Public Lands, there is a tabular statement of the amount of timber standing in the States and Territories of the United States, and in the Dominion of Canada. This statement shows that the total amount of standing timber east of the Rocky Mountains, in the United States, is 105,440,000,000; in the Dominion of Canada, 73,000,000,000—total east of the Rocky Mountains, 178,440,000,000. West of the Rocky Mountains, 70,000,000,000—total in the United States and Canada, 248,440,000,000. In this estimate the amount of yellow pine standing in the United States is credited—to Virginia, 150,000,000; North Carolina, 1,600,000,000; South Carolina, 90,000,000; Georgia, 1,500,000,000; Florida, 1,700,000,000—total 5,000,000,000. South Carolina is credited with 90,000,000 feet, board measure. The fourteen counties in this State, lying in that section known as the alluvial region, yet contain 2,543,765 acres of heavily timbered land, covered with long-leaved yellow pine, which may be safely counted on for an average yield of 1,000 cubic feet to the acre of good merchantable timber, squaring ten inches and upward clear of sap; thus making for this State 2,543,765,000 feet, and in the same section may be found about 700,000 acres of river and inland swamp, the greater part of which is covered with a dense growth of cypress, oak, ash, and other woods of that class. The coast of Georgia being deeply indented with many fine harbors where vessels of deep draught may enter, has offered great facilities for shipping timber and lumber from that State, and in consequence her forests have sustained a great drain for the last forty or fifty years. Still it is safe to count on her for not less than 3,500,000,000. Florida has been the Eldorado to

which all seekers for yellow pine lumber have been attracted, and for the last thirty years the ax of the timber cutter and the whirl of the saw-mill have been acting on Florida pines, and the shipments from her ports have been greater than from any other state. Still, she may be counted on for at least 3,000,000,000 more. The forests of Alabama and Mississippi have long been drawn upon to supply the demand for vessels loading for foreign ports at Mobile and Pensacola, and for the requirements of Louisiana, Texas, and the West Indies, but still they are yet good for at least 2,500,000,000.

Thus we have a grand total of 11,593,765,000 cubic feet of yellow pine standing in these southern states, instead of about half that amount, as estimated by Mr. Little. Large quantities of this timber are used in the middle and eastern states for ship-building and other purposes. Some idea of its value to our northern friends may be arrived at when we remember that in 1860, before the war began, it was selling in New York and Boston at from \$24 to \$28 per 1,000. Soon after the ports of the south were blockaded the price of yellow pine ran up to \$85 per \$1,000, but it could not be obtained at any price. Even after the war ended, and before the railroads of the south were put in order so as to transport the timber, the price continued at \$60 to \$75 for some twelve months or more. The timber standing near the river banks has long since been thinned out, and but for the new forests that have been rendered accessible by railroad, the supply would ere this have failed to keep pace with the demand.—*Corr. of Georgetown Times.*

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

**THE SHEBOYGAN MANUFACTURING COMPANY,
SHEBOYGAN, WIS.**

Among the different manufacturing industries of this great state, the above manufacturing company stands A, No. 1. Their speciality is chairs, of which they manufacture 350 different varieties, from the wood bottom common \$7.00 per dozen chairs to the magnificent \$144 per dozen parlor chair. They turn out 1,000 dozen chairs per month, employing 500 hands, using four large three story brick buildings: 50x150 feet in size as factories, besides a number of ware rooms. The works, cover five acres of ground. The company has \$250,000 capital invested, with a monthly pay roll of \$9,000. The question to the uninitiated in the trade is where does all this immense amount of manufactured goods go to—to what market? When we come to learn the excellence and point of perfection their goods have attained, through the indefatigable exertions of Mr. S. M. Barrett, President, and Mr. G. L. Holmes, Vice President, we are not surprised to learn that during the quarter ending last August the sales of the house had increased \$19,000 over the corresponding time last year, and that their goods find a ready sale in California, Oregon, and the Western States, besides large orders being filled from Germany, Scotland and England. "And to carry coals to Newcastle" still more, the Boston manufacturers have just waked up to the fact that they can buy Sheboygan bent work chairs (their speciality) cheaper and better than they can make them. The company own and control the celebrated bent wood patents and appliances, by which they can take oak, and even ash and walnut lumber, and bend it into all kind of intricate shapes and fashions, as solid and substantial as if made straight out of the wood. They sell up a new least calculation \$1,000, and as they make 350

different patterns, we conclude the patterns alone connected with the business cost considerable money. Messrs. Barrett & Holmes are both self-made men. Mr. Barrett commenced business twenty years ago on \$50 borrowed capital. To-day he is worth at the least calculation \$2,000,000.

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LUMBER MARKET.

Milwaukee, Wisconsin.

MILWAUKEE, Jan. 15, 1875.

Common boards.....	12	00@
Joist and Scantling, 12 by 16 ft.....	12	00@
do do 18 ft.....	13	00@
do do 20 ft.....	14	00@
do do 22 to 24 ft.....	15	00@17 00
Fencing.....	12	05@
1st and 2d clear dressed siding.....	25	00@
1st com. do do.....	20	04@
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	05@
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.....	80	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 4 M pieces.....	2	50@ 2 75
A shingles, 4 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.....	44	00@50 00
Third clear, 1 in.....	37	00@49 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, split.....	16	00 18 00
Cedar posts, 6 inch.....	20	00@
do 6 inch.....	25	00
do 7 inch.....	30	00
do 8 inch.....	35	00
Lath.....	2	00@ 2 25
Shingles—Sawed No. 1.....	1	50@ 2 00
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.

Plank, common..	@ 25	Board and planks. 30@	40
Plank, clear....	48	Wagon poles, each. 55	60c
Bolster s.....	45	Flooring, 6-in dr'd and matched.....	40
BLACK WALNUT.		Flooring, 3 and 4 inch dr'd and matched.....	50
Culls.....	25@ 35	Clear.....	58
Common.....	50	CHERRY.	
First and 2ds.....	60	Culls.....	20 25
Clear.....	75	Common.....	40
Counter tops, (selected).....	100	First and 2ds.....	50
Flooring, 6-in dr'd and matched.....	80	Clear.....	65
Flooring, 3 and 4 inch dr'd and matched.....	65	HICKORY.	
MAPLE.		Plank (selected).....	50
Plank.....	30	Axles, per pair... 1	50
Flooring, 8-in dr'd and matched.....	40	BASSWOOD.	
Flooring, 3 and 4 inch dr'd and matched.....	45	Basswood.....	12 25
		BUTTERNUT.	
		Euternut.....	25 60

Oswego, New York.

From the Oswego Weekly Palladium.

MICHIGAN PINE.

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

CANADA PINE.

Three uppers.....	\$40@42
Pickings.....	28 32
Common.....	18 20
Inch siding, mill run.....	24 30
“ “ selected.....	32 38
“ “ 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 16
1x10 stocks, 13 ft, culled.....	20 26
1x10 stocks, 13 ft, culls.....	14 16
1x10 stocks, 16 ft, culled.....	23 26
1x10 stocks, 16 ft, culls.....	21 28
1x12 stocks, 13 ft, culled.....	14 16
1x12 stocks, 13 ft, culls.....	24 30
1x12 stocks, 16 ft, culled.....	18 15
1x12 stocks, 16 ft, culls.....	15 17
1x14 stocks, culled.....	23 28
1x16 stocks, culled.....	23 28
1 1/2 x10 plank, culled.....	23 27
1 1/2 x10 plank, culls.....	13 15
1 inch strips, culled.....	22 30
1 1/2 inch strips, culled.....	22 30
1x1 1/2 inch strips, culls.....	10 12
Ash, Canada finishing, 1st quality.....	25 35
“ “ “ common.....	18 20
Black ash.....	18 20
Black walnut.....	18 20
Hemlock.....	85 105
Shingles, pine, 1st quality, 18 inch.....	4 25 4 53
“ “ 1st.....	3 85 4 0c
“ “ 2d.....	3 05 3 50
“ “ 18 inch.....	3 25 4 00
“ cedar 1st.....	4 30 4 50
“ “ 2d.....	2 25 2 50
Hemlock, 1st.....	2 50 3 60
Spruce, 1st.....	18 inch..... 3 24
Mich. pine shingles, best quality 18 inch.....	4 50 4 75
Pickets, pine, 1st quality, flat.....	14 18
“ “ 2d.....	10 11
“ “ 1st “ square.....	12 13
Lath.....	1 80 9 00

St. Louis, Mo.

WHITE PINE.

1 inch 2d clear.....	\$50	@52 50
1 inch 3d clear, 7 to 8 inches.....	35	@40 00
1 inch select (Star).....	40	@
1 inch narrow extra common.....	22	50@
1½, 1½ and 2 inch 2d clear.....	52	50@55 00
1 " " select (Star).....	40	00@45 00
Ac 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 00
2d " " ".....	16	00@
Select fencing.....	12	50@
¾ inch common ceiling dressed, count double bead.....	25	00@
¾ inch 1st common ceiling dressed count double bead.....	30	00@
¾ inch 1st common ceiling dressed, count, double bead.....	35	00@
Common boards, 12, 14, 16 and 18 ft.....	14	00@18 00
" " " 10 and 20 ft.....	15	00@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
" " " 12, 14 and 18 ft.....	14	00@18 00
6 " " 10 and 20 ft.....	14	00@
Narrow " 16 ft.....	14	00@
Cull " " 12 and 14 ft.....	11	00@
Joists 12, 14 and 16 ft.....	14	00@18 00
" " " 18 and 20 ft.....	16	00@20 00
" " " 28 and 24.....	19	00@24 00
x4 scantling, 12 ft.....	14	00@18 00
" " " 14 and 16 ft.....	14	00@17 00
" " " 18 ft.....	14	00@
" " " 20 ft.....	16	00@
Yard timber 12 to 16 ft, 4x6 to 8x8.....	18	00@
" " " 18 and 20 ft.....	16	00@
Flat pickets, rough.....	17	50@
Flat clear pickets, dressed and headed No. 9.....	35	00@
1½ inch square pickets, rough.....	15	00@
" " " dressed and headed.....	35	00@
O. G. clear battons, 2½ inches wide.....	11	00@
" " " 2½ " ".....	9	50@
" " " 1½ " ".....	9	00@
O. G. 2d quality battons 2½ 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@
" " " 6 in (count).....	27	00@
1st and 2 clear boards 10 in and over.....	44	00@
" " " 1½ in.....	45	00@
1½ in 1st and clear flooring (tape).....	37	50@
1½ 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@
4-16 in ceiling (count) dressed, plain.....	20	00@
1st and 2d clear 1 in.....	40	00@
" " " 1½, 1½ and 2 in.....	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.....	¢ M 45	00@50 00
Walnut, common.....	30	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, hewn.....	26	@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 ♀ m.....	\$51	00@53 00
Pine, fourths ♀ m.....	46	00@48 00
Pine, select ♀ m.....	41	00@43 00
Pine, good box ♀ m.....	23	00@25 00
Pine, common ♀ m.....	14	00@18 00
Pine, clap board strips.....	45	00@46 00
Pine, 10 inch plank, each.....	38	@48
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, ♀ m.....	25	00@27 00
Pine, 12 inch boards, 16 ft, ♀ m.....	23	00@29 00
Pine, 12 inch boards, 13 ft, ♀ m.....	25	00@28 00
Pine 1½ inch siding, select, ♀ m.....	38	00@42 00
Pine 1½ inch siding, common, ♀ m.....	16	00@18 00
Pine, 1 inch siding, selected, ♀ m.....	34	00@40 00
Pine, 1 inch siding, common, ♀ m.....	14	00@17 00
Spruce boards, each.....	14	@15
Spruce plank, 1½ inch, each.....	16	@17
Hemlock plank, 2 inch, each.....	16	@30
Black Walnut, good, ♀ m.....	75	00@85 00
Black Walnut ¾ inch, ♀ m.....	75	00@73 00
Black Walnut, ¾ inch, ♀ m.....	75	00@80 00
Sycamore, 1 inch ♀ m.....	35	@35 00
Sycamore, ¾ inch ♀ m.....	32	@32 00
White wood, chair plank, ♀ m.....	65	00@68 00
White wood, 1 inch, and thick, ♀ m.....	38	00@45 00
White wood, ¾ inch, ♀ m.....	35	00@40 00
Ash, good, ♀ m.....	38	00@43 00
Ash, second quality, ♀ m.....	25	00@30 00
Oak, good, ♀ m.....	38	00@45 00
Oak, second quality, ♀ m.....	25	00@30 00
Cherry, good, ♀ m.....	60	00@70 00
Cherry, common, ♀ m.....	25	00@35 00
Birch, ♀ m.....	25	00@30 00
Beech, ♀ m.....	20	00@25 00
Basswood, ♀ m.....	22	00@25 00
Hickory, ♀ m.....	40	00@45 00
Maple, ♀ m.....	22	00@30 00
Chestnut, ♀ m.....	40	00@45 00
Shingles, shaved pine, ♀ m.....	5	50@7 00
Shingles, do, 2d quality, ♀ m.....	5	00@5 50
Shingles, extra sawed pine, ♀ m.....	5	00@5 25
Shingles, clear sawed pine, ♀ m.....	3	50@4 00
Shingles, sawed 3d quality, ♀ m.....	2	50@2 75
Shingles, cedar, ♀ m.....	3	00@5 00
Shingles, hemlock, ♀ m.....	2	@3 00
Lath, hemlock, ♀ m.....	2	@1 75
Lath, spruce, ♀ m.....	2	@2 00
Lath, pine, ♀ m.....	2	@2 25

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MINNEAPOLIS, MINNESOTA.**

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

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

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

Choice Timber Land.

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

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

I have also for sale 1,120 acres in township 130, range 84 and 35. First quality Farming Lands, well timbered and prairie and well watered; near railroad. \$5.00 per acre.

Choice Pine Lands.

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

160 acres in sec. 24.....	T. 182, R. 30	240 acres in sec. 10, 14, 21.....	T. 132, R. 31
400 acres in sec. 21, 22, 30.....	T. 187, R. 33	360 acres in sec. 14, 18, 24.....	T. 182, R. 31
440 acres in sec. 1, 12.....	T. 187, R. 34	240 acres in sec. 30.....	T. 40, R. 25
160 acres in sec. 10, 22, 24, 34.....	T. 187, R. 33	380 acres in sec. 3, 22, 24, 26.....	T. 40, R. 29
377 acres in sec. 6, 11, 13, 14, 24, 25, 33, 34.....	T. 188, R. 25	320 acres in sec. 6, 10, 23, 34.....	T. 51, R. 26
160 acres in sec. 8.....	T. 187, R. 33	360 acres in sec. 10, 14, 26, 34.....	T. 51, R. 27
240 acres in sec. 4, 18.....	T. 131, R. 30	320 acres in sec. 14, 22, 26, 30, 34.....	T. 53, R. 26
480 acres in sec. 10, 14, 24.....	T. 131, R. 31	160 acres in Wisconsin, sec. 30, T. 44, R. 2 W., near	
200 acres in sec. 18.....	T. 132, R. 30	crossing of Wisconsin C. R. R.	

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

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

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

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

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FOR SALE!

The lands of the Jackson, Lansing & Saginaw Railroad Company are now in market.

They are situated along its railroad, and contain tracts of the best Pine on the Tittabawassee, Rifle, Muskegon, Manistee, Au Sable, and Cheboygan Rivers. The grant having been made before any considerable quantity of pine land had been located in the northern part of the state, it now includes some of the finest and choicest

WHITE PINE TIMBER,

AND BEST

NORWAY PINE.

The FARMING LANDS include many thousand acres of first-rate

BEECH AND MAPLE LANDS.

No better can be found, and they are well watered, and located where they will have the best railroad facilities. No section of the country offers greater inducements to the settler than the above lands.

Terms For Sale.

One-fourth down, and the remainder in three equal annual installments, with interest annually at 7 per cent. Farming lands will be sold on longer time if desired. For list of lands, further information, or purchase, apply to the undersigned at LANSING MICH. O. M. BARNES, Land Commissioner.

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Situated on the line of F. & P. M. R. R. also on Muskegon River with convenient Mill Yard and Boom. WILL BE SOLD CHEAP! Terms easy to a responsible party.

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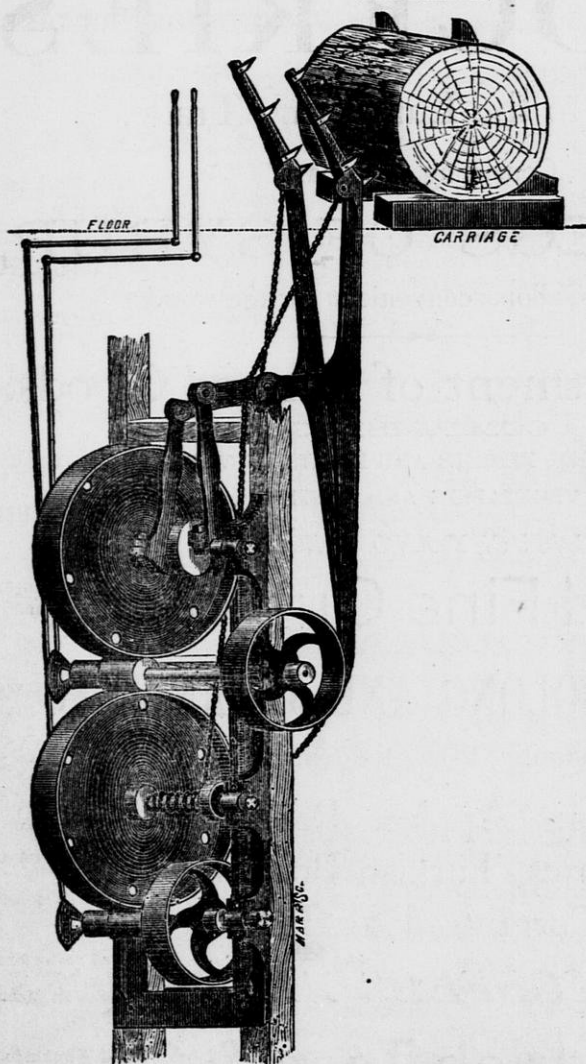
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The Sawyer by the movement of one lever causes the log levers to raise up against the log upon the log way and roll it upon the carriage and keep it rolling as long as may be desired. It can

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Any Point.**

and will hold the log or cant firmly against the knees while it is being dogged or examined by the Sawyer. By the movement of another lever he causes the log levers to fall back from the log through the floo out of the way.

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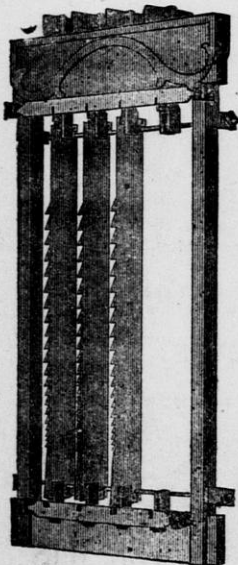
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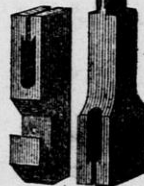
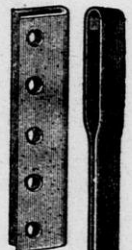
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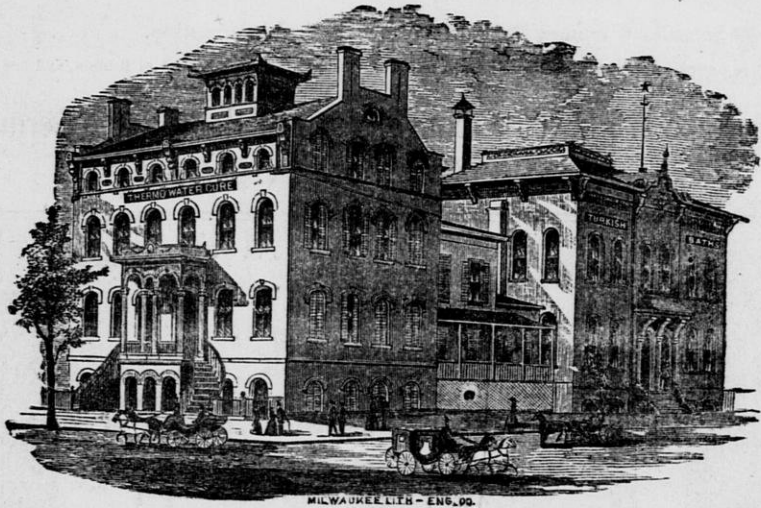
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The Mill Property is situated at Wausau and is new, and has a capacity of manufacturing Eight Million feet of Lumber, Four Million feet of Shingles and Four Million feet of Lath during the Summer Sawing Season, and can be increased to double that amount.

In connection with the same there is all

NECESSARY BUILDINGS,

SUCH AS

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8,000 Acres of the Best Pine Land,

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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.

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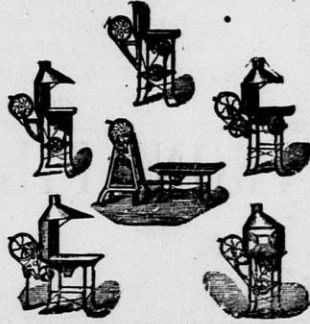
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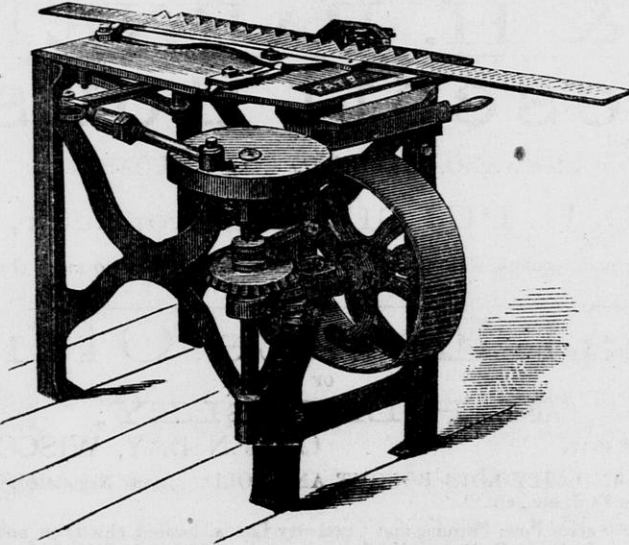
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Contains authentic and exhaustive reports and price currents from every important lumber market in the country, prepared by our own correspondents. Special information pertaining to the LUMBER TRADE and MANUFACTURE in every section, and the introduction of new and improved machinery for wood-working and saw-mill use, made a peculiar feature. Printed upon fine tinted paper and handsomely bound, the LUMBERMAN challenges comparison in typographical appearance, with any trade journal in the country. Only TWO DOLLARS a year; payment invariably in advance. One of the best advertising mediums in the world for manufacturers of saw-mill or wood-working machinery. Rates liberal and will be made known upon application. Sample copies furnished free.

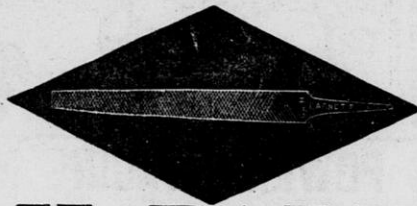
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- C. C. PAIGE,
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- UNION LUMBERING CO.,
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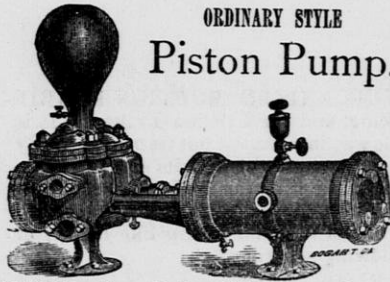
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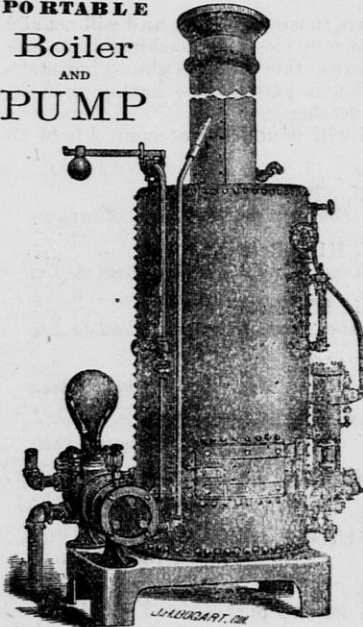
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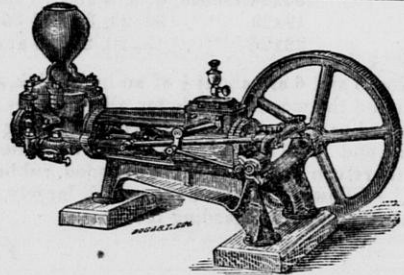
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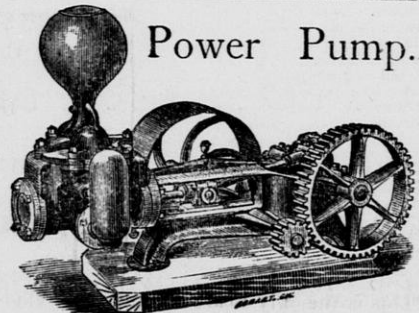


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TO LUMBERMEN!

NOW READY.

The most comprehensive and valuable volume of
LUMBER STATISTICS EVER PUBLISHED.

The compiled Statement of the
TRADE AND MANUFACTURE OF LUMBER, FOR 1874.

PUBLISHED BY

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

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

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

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

2d. It contains in aggregate, the total amount of lumber manufactured in each locality during the season of 1874, with the amount of lumber on hand, logs on hand in mill booms, main booms, and in the streams, to be carried over to 1875, thus giving the entire balance sheet of each lumbering section or 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 known authorities; the Law of Michigan governing the inspection of lumber in full, and the rules of inspection in use at Chicago, Albany, and St. Louis, the largest distributing markets in the country; sketches of every Association, Board of Trade, or other Organization of lumbermen in existence; a history of the National Association, its officers and standing committees, etc.

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

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

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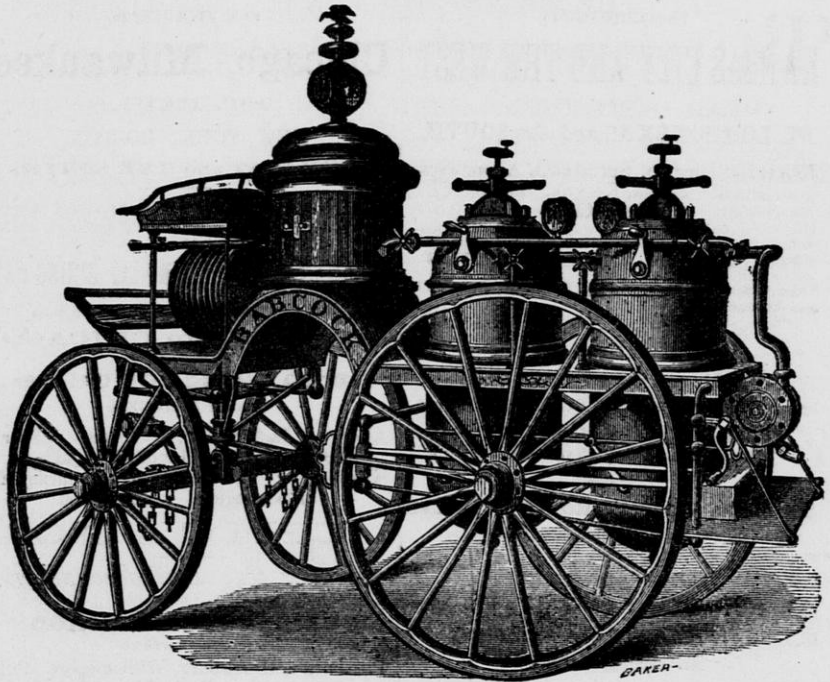
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STOVE POLISH, | TINNERS STOCK

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A Full Stock of Everything in
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We Have the Largest and Most Complete Assortment of
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And All Points in the East.

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Fare \$3.00 Less than any other Route.

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

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Manufacturers of Steam Engines,

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Going South—Pass—6.40 A. M. 6.55 P. M.
" North— " 8.30 A. M. Fr't—12.05 P. M.

Wis. Central R'y Trains leave:

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

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

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Wisconsin Central Trains Leave:

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

GRAND RAPIDS.

Wisconsin Valley Trains Leave:

North—12.30 A. M. | South—3.30 P. M.

MERRILLAN.

West Wis. Railway Trains leave:

Going North—Pass—11.05 A. M. 11-10 P. M.
" South " 2.34 A. M. 4-42 P. M.
St. Paul time, which is 25 minutes behind Green Bay time.

WINONA.

Winona & St. Peter R'y Trains leave:

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

Mil. & St. Paul Trains Leave:

Going North—Pass.—12.40 A. M. 12.50 P. M.
" South " 12.25 A. M. 2.50 P. M.
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For all points North and South on the Mississippi River

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

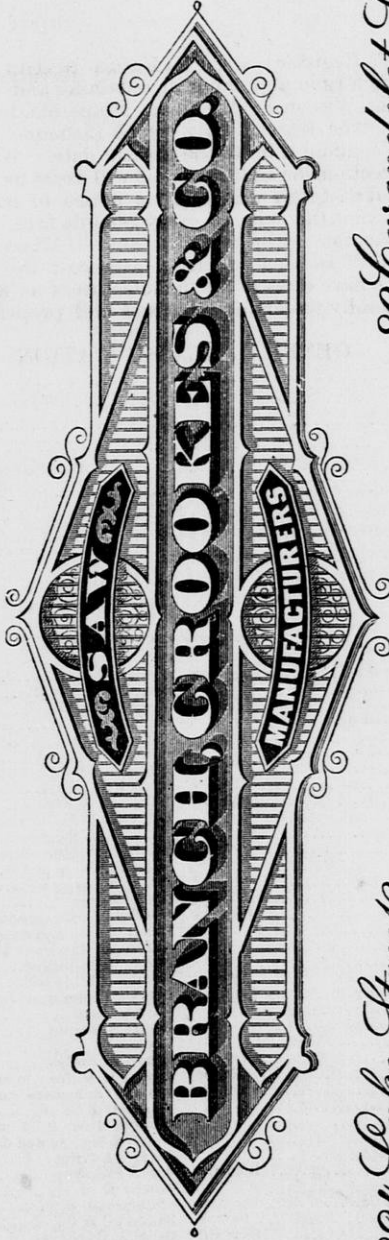
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NEW ORLEANS.

LUMBERMEN'S REGISTER.

The Lumbermen's Register is a special feature of THE WISCONSIN LUMBERMAN. We have devoted much time and labor in obtaining and classifying the names of the lumbering firms of Wisconsin, Michigan, Minnesota, Iowa, Nebraska, Missouri, Kansas and Chicago. The Register may yet be incomplete, but it is as perfect as we have been able to compile it up to the present date. We ask, now, that lumbermen send us any corrections or additions that will assist us in making the Register absolutely perfect, and that they will send us notice of new firms formed or old ones dissolved. We want the name of every reliable firm. Assist us in obtaining them. In our classification it will be noticed that in Missouri, Kansas and Nebraska, the term "saw mill" is used in many instances; the term refers to the local hard-wood mills. We have classed the manufacturers as manufacturers and dealers, because it is generally understood that saw-mill proprietors are at least wholesale dealers.

GENERAL CLASSIFICATION.

m and d.....	Manufacturers.
d.....	Wholesale and Retail Dealers.
s m.....	Shingle Manufacturers.
p m.....	Planing Mills.
Sash, doors, &c.,.....	Manufacturers of Sash, Doors, &c.
Saw mill.....	Hardwood Mills.
Staves.....	Stave Manufacturers.
Logger.....	Jobber or logger who sells his logs or has them sawed by custom sawing.

Our Register is more incomplete in reference to loggers than to any other class of lumbermen. That department will be perfected as rapidly as we can obtain the names.

WISCONSIN.

Upham Chas M & Bro m and d.....	Angelica	Gratiot E H d.....	Belmont
McCartney D m and d.....		Gray James p m.....	Beloit
Oleason & Co m and d.....		Weed J H & Co d.....	
Clinton McLaren & Co m and d.....		Peck S W d.....	
Hall A & Co m and d.....	Ahnapee	Talbot H G d.....	Berlin
Brammer Henry & Co m and d.....		Cohn L S m and d.....	
Young D m and d.....		Dammond & Co m and d.....	Big Lester Bay
Sawyer P m and d.....	Algoma	Bates Geo d.....	Black Earth
Reynolds & Tibbetts m and d.....	Appleton	Ward G S & Bro d.....	
Lederer B W sash doors etc.....		Hurlburt W D m and d.....	Black Brook
Spaulding G W & Co staves.....		Price W T logger.....	Black River Falls
Whorton Bros m and d.....		Bright & Wither loggers.....	Black River Falls
Rose & Heath.....		Merrill L G m and d.....	
Door & Steele m and d.....		Elliott A m and d.....	
Yorker S J d.....	Arena	Ice J logger.....	
Goodrich J & Co logger.....	Augusta	Spaulding D J m and d.....	
Ball J L d m.....		Bump Mark logger.....	
Stone J F & Son m and d.....		Burchard Harrison logger.....	
Randall S logger.....		Porter W B logger.....	
Bowen E.....	Albany	Sawyer A E logger.....	
Ashland Lumber Co m and d.....	Ashland	Dickson John and James.....	Bloomington
E Ingalls & Co m and d.....		Barron John.....	Blue Mills
White & Dunbar, sash, doors, etc.....		Briggs & Barnes.....	Boaz
S S Vaughn m and d.....		Bucker A.....	Buffalo
Cary Bros m and d.....	Auroraville	Rouch & Erding.....	Bonduel P O
Flower J H.....	Bangor	Somers W & Bro m and d.....	
Obrecht Christian d.....	Baraboo	Schwahl & Somers m and d.....	
Bassett Wm P staves.....		Nelson H & Co d.....	Boscobel
Pratt s m.....		Weston, Miner & Co m and d (Necedah).....	
Baraboo Manufacturing Co.....		Pierce & Sly m and d.....	Branch
Wolcott W W sash, doors, etc.....		Yorty J & Kripp d.....	Brandon
Balley D R.....	Baldwin	Beach & Bishop d.....	Brillion
Ham Henry sash, doors etc.....		Bowen E d.....	Brodhead
St. Louis & Wisconsin River Co.....	Barnum	Thompson C O d.....	
Woodford & Davis m and d.....	Barton	Lamson C & Co d.....	
R D Pike m and d.....	Bayfield	Usher & Hassinger d.....	
Townsend & Co, d Spring c Second.....	Beaver Dam	Blake Francis W d.....	Burlington

Stevens Lyons d.....	Burnett Junction	Mather & Lowrie d.....	Emery
Fay C B & Co m and d.....	Casco	Isabelle Mill Co m and d.....	Esdaile
Horn F W m and d.....	Cedarburg	Foot, Foster & Co m and d.....	Eureka
Hilgen & Son m and d.....		Avery A H m and d.....	Excelsior
Wehausen Henry m and d.....		Mosier W S m and d.....	
Deniston J C d.....	Cadiz	Pearson & Pake m and d.....	
Deniston C R d.....		Long, Henderson & Coe m and d.....	Fairchild
Staves J M d.....		Randall, Simeon d.....	Fall Creek Station
Neff D d.....	Calamine	Anderson C B d.....	Fall River
Bock Chas d.....	Calumet	Fifield E d.....	Evansville
Myers Jas d.....	Cambria	Johnson D & Co d.....	
Tisch Chas d.....	Carlton	Mack H & Bro m and d.....	Evanswood
Stephens Daniel B d.....	Casville	Cook & Foster m and d.....	Fort Howard
Harris Bros m and d.....	Cato	Lamb, Watson & Co m and d.....	
Rix Bros m and d.....	Cedar Creek	C Schwartz & Co sash doors etc.....	
Edwards J & Co m and d.....	Centralia	Laird J. P. & Co m and d.....	
Garrison O & Co m and d.....		Gray Oscar m and d.....	
Lefevre H.....		Griffith J Q & Son m and d.....	Fond du Lac
Lyon R C s m.....		Riley & Bosworth loggers.....	
Clark & Scott m and d.....		Hamilton I K & W C loggers.....	
Graves James m and d.....	Charlestown	Fond du Lac Mfg Co m and d.....	
Union Lumbering Co m and d.....	Chippewa Falls	Lewis & Steenberg sash doors etc.....	
Priest, Coburn & Co p m.....		McCourt E sash doors etc.....	
Withrow & McKee sash doors etc.....		McDonald & Stewart sash doors etc.....	
Marriet, La Beulf & Co loggers.....		Parker N & Co d.....	
Vincent, Monclert & Co loggers.....		Stevley & Higbee p m.....	
Clark Ira m and d.....	Clark's Mills	McDonald John logger.....	
Hilt & Davidson m and d.....	Clay Bank	Wiley Dr logger.....	
Tuft Jas shingle dealer.....		Gainer James logger.....	
Lampheer H F d.....	Clinton	Chicago & N W Co's mill m and d.....	
Wilcox Bros & Co d.....		Webster N D logger.....	
Colby Mill Co m and d.....	Colby	Meyer Charles J L sash doors etc.....	
Graves J S n and d.....		Merryman & Co m and d.....	
Bond A D d.....	Columbus	McDonald Alexander m and d.....	
Long & Henderson d.....		Sexmith G W m and d.....	
F. F. Farnham d.....		Moore, Galloway & Baker m and d.....	
Aldrich V M d.....	Cooperstown	Parker N & Co.....	
Wright P & Bro m and d.....	Coral City	Mihills U D & Co sash doors etc.....	
D J Walker d.....	Danville	Hamilton & Finley m and d.....	
James T & Co d.....	Darlington	Hunter George logger.....	
Carpenter H N d.....		Curtis & Cornish d.....	Fort Atkinson
Woodward T saw mill.....		Wilcox, Southwell & Co d.....	
Clark H d.....	Deansville	Matthaies F & C m and d.....	Fountain City
Ross H J & Co d.....	Delevan	Bowman W m and d.....	Frankfort
Gormley Watson & Co d.....	Delevan	Arpkee F m and d.....	Franklin
Blake Samuel m and d.....	DePere	Archer & Johnson m and d.....	Frankville
Smith B. F. m and d.....		Arnold G M m and d.....	
Reid A. p m.....		Cooley & Race m and d.....	Fredonia
McLelland John m and d.....		Cooley & McVoy staves etc.....	
Marsh G S m and d.....		Bergtresser L m and d.....	Fremont
Ritchie James m and d.....		Brickley John m and d.....	
Monroe John m and d.....		Edwards J & Co m and d.....	Frenchville
Struthers Thomas sash doors etc.....		Sterns & Son staves.....	Galesville
Hiles G m and d.....	Dexterville	Freeman A W d.....	Genoa
Remington H W m and d.....		Arnold J m and d.....	Germantown
Worth C M & A R s m.....	De Soto	Natchway H.....	Gibson
Kinney Francis m and d.....	Durand	Olds & Lord m and d.....	Glenmond
Plummer & Morse m and d.....		Freeman O. & W. d.....	Genoa Junction
Hoard & Earl d.....	Doylestown	Stewart Bros d.....	Genesee
Knapp, Stout & Co m and d (Menomonee),	Dunnville	Arpen A logger.....	Grand Rapids
Baker & Lee d.....	Elkhorn	Butler & Smith sash doors etc.....	
Larson & Olsen m and d.....	El Paso	Edwards John & Co m and d.....	
Eau Claire Lumber Co m and d.....	Eau Claire	Hertel Fred p m (Centralia),	
Kathbone N S logger.....		Trahern W C.....	
Rundle & Free sash doors etc.....		Arpen J logger.....	
Wheaton Lumber & M'fg Co m and d.....		Byron F m and d.....	
Northwestern Lumber Co m and d.....		Clark & Scott m and d.....	
Bangs & Fish p m.....		Meehan P & J m and d.....	
Boyd A m and d.....		Neoves Geo & Son m and d.....	
Burdett, Preston & Co m and d.....	Eau Claire	Rau John m and d.....	
Estabrook W B m and d.....		Roe & Butterfield m and d.....	
Ingram & Kennedy m and d.....		Scott's B m and d.....	Grand Rapids
Graham, White & Co m and d.....		Whipple E s m.....	
Pinkham J P m and d.....		Weed Lumoer Co m and d.....	
Robson John m and d.....		Hickerson N H.....	Grantsburg
Daniel Shaw & Co m and d.....		Graves J A m and d.....	Gravesville
Smith & Buffington m and d.....		Modlin Henry.....	
Tarrant E m and d.....		Earle & Case s m.....	Green Bay
Wilcox & Co m and d.....		Willard Lamb m and d.....	
Carson & Rand m and d.....	Eau Galle	McIntosh C E s m.....	
Week John m and d.....	Eau Pleine	Lamb, Watson & Co m and d.....	
Hutchinson & Bro m and d.....		Woodruff J W & Co m and d.....	
Brown R R d.....	Edgerton	Holmes & Thompson m and d.....	
Huntley & Co d.....	Elroy	Anton Burkhardt p m.....	
Webster & Palmer m and d.....	Embarrass	Klaus Anton m and d.....	

Marshall & Darling s m.....	Green Bay	Leigh J m and d.....	Little River Mills
Herling Theo m and d.....	Green Bush	Mikeljohn James m and d.....	Little Wolf
Sultz, Lewis & Henry m and d.....	.....	Gardner & Co m and d.....	Little Suamico
Schmidt Adam m and d.....	Harrisville	Conn A C & Co m and d.....	.....
Ewing Thos m and d.....	Hartford	Olsen Geo & Co.....	.....
Mills J D d.....	Hartland	Zeider L.....	Lomira
King P & Son d.....	Helena	Snow W H d.....	.....
Tripp N D d.....	Hillsborough	Vaetsch & Runkle.....	Lowell
Fisher J.....	Horicon	Smith D F m and d.....	Luck
Briggs & Son m and d.....	Hortonville	McMillan A d.....	Lyndon
Gowell, Logan & McMurdo m and d.....	.....	Eighty Freeman d.....	McFarland
Redout Bros sash doors etc.....	.....	Bunker & Vroman d.....	Madison
Whitman & Morse m and d.....	.....	Sorenson & Frederickson p m.....	.....
Baldwin D A m and d.....	Hudson	Stein C R d.....	.....
Palmer H G & Co m and d.....	.....	Taylor C L staves.....	Malden Rock
White & Jones sash doors etc.....	.....	Cooper & Jones.....	Manitowoc
King G W logger.....	Humbird	Woerfel E staves.....	.....
J Kablin pail and tub factory.....	Hurleyville	Guyles & Pankratz d.....	.....
Roberts John d.....	Iron Ridge	Hubbard H F d.....	.....
Blair J d.....	Janesville	Zander & Co p m.....	.....
Fifield, D F d.....	.....	Klingholz Charles m and d.....	Manitowoc Rapids
Lovejoy & Blount d.....	.....	Pierce Plinn.....	.....
Jeffries David d.....	.....	Reune Chas m and d.....	Maple Works
Schutt U d.....	.....	Brayton L J d.....	Marquette
Hitchcock & Reind d.....	Jefferson	Green J S d.....	.....
Andrews F M & Co m and d.....	Jenny	Hamilton, Merryman Co m and d.....	Marinette
Matthews Thos m and d.....	.....	Tweedie & McMaster p m.....	.....
Kline & Kyes, loggers.....	.....	Menominee Mfg Co m and d.....	.....
McInnis R, logger.....	.....	Spaulding, Houghtaling & Johnson m and d.....	.....
Young Gid, logger.....	.....	McCartney Wm m and d.....	.....
Streeter H, logger.....	.....	N Ludington Co m and d.....	.....
Sailes Bros, loggers.....	.....	Whitbeck H Co m and d.....	.....
Dereg M, logger.....	.....	Bartlett L H d.....	Marshall
Dereg Owen, logger.....	.....	Craig & Maroney sash doors etc.....	Mauston
Combs H, logger.....	.....	King Walter staves.....	.....
Jewett A S & Sons m and d.....	Jewett's Mills	Webster C m and d.....	Maxville
Sutherland Sol.....	Juda	Bronson D W d.....	Mazo Manie
Knapp J R d.....	Juneau	Hewitt Henry, Jr logger.....	Menasha
Taber J B & Co.....	Kansasville	Mitchell, Watkie & Co sash doors etc.....	.....
Backus N G d.....	Kenosha	Potter & Dutchman m and d.....	.....
Harrison W M p m.....	.....	Schneider & Ruth p m.....	.....
Head & Southerland d.....	.....	Spaulding, Houghtaling & Johnson m & d.....	Menekaune
Grant & Son, Market d.....	.....	Stephenson T & Co m and d.....	.....
Truesdell Gideon, 3 Main d.....	.....	Knapp, Stout & Co m and d.....	Menomonee
Hitchcock & Mashek m and d.....	Kewaunee	Brand & Christmann m and d.....	Montpelier
Slauson, Grimmer & Co m and d.....	.....	Baldwin m.....	.....
Stranky W m and d.....	.....	Bainbridge W.....	Miffin
Dikeman & Latimer s m.....	.....	Harker & Bainbridge.....	Miffin
Walker, Munger & Co sash doors etc.....	Kilbourn City	Greene N S & Co.....	Milford
Britton C W m and d.....	Kinnelkinnic	Brown & Evans m and d.....	Mills Centre
Brook V logger.....	Knowlton	Dunham L m and d.....	.....
Wallace & Redford m and d.....	.....	Lucas & Bro m and d.....	.....
Stark Bros, m and d.....	.....	Wight S s m.....	.....
Cloespeck M m and d.....	Kossuth	Greenman R J d.....	Milton Junction
Kellnor M m and d.....	.....	Hutchinson James d.....	Mineral Point
Black River Improvement Co.....	LaCrosse	White S d.....	.....
Hogan & Chamberlain loggers.....	.....	Weyhausen A m and d.....	Mishicott
McDonald Bros loggers.....	.....	Williams J W saw mill.....	Monroe
Salzer G. J.....	.....	Loos Charles d.....	Merrimack
Crosby W. W m and d.....	.....	Dodge, Churchill & Co p m.....	.....
Coleman C L m and d.....	.....	Dodge & Davenport d.....	.....
Gile & Holway m and d.....	.....	Rood J L d.....	.....
Mooer R M logger.....	.....	Dessert J R m and d.....	Mosine
Bright & Withee m and d.....	.....	Kronenwetter S m and d.....	.....
Lill & Fourero m and d.....	.....	Garland J d.....	Muscoda
Hewett & Woods m and d.....	.....	Bull & Bowers.....	Muskego Centre
Hixon & Withee m and d.....	.....	Houghton Geo G & Co m and d.....	Milwaukee
A & D D McMillan loggers.....	.....	Schroeder & Steinman, dealers.....	.....
Nevins S L m and d.....	LaCrosse	Erns Herzer, planing mill.....	Milwaukee
Paul John m and d.....	.....	Wm. Willer, planing mill.....	.....
Polleys W H logger.....	.....	H. Jalass & Co, planing mill.....	.....
Root W C logger.....	.....	Brockhaus & Bradley, planing mill.....	.....
Sill Wm R logger.....	.....	Nic. Schuh & Son, dealers.....	.....
Vincent & Edwards d.....	.....	Rodway, Conway & Co, p m sash, drs, etc.....	.....
Washburne C O m and d.....	.....	Sanger, Rockwell & Co, sash, drs etc, p m.....	.....
Weston R S m and d.....	.....	Engelmann, Babcock & Salling, m and d.....	.....
Emery T B logger.....	.....	Ewing Thos K commission.....	.....
Goddard H logger.....	.....	Weston Bros, manufacturer and dealer.....	.....
Hankerson A H logger.....	.....	Mayhew Bros d.....	.....
La Crosse Lumber Co m and d.....	LaCrosse	Durr & Rugee d.....	.....
Mitchell A S p m.....	.....	Schmidt & Reichel d.....	.....
Ross Robert m and d.....	LaCrosse	Judd T H & Co d.....	.....
Barron John m and d.....	Lafayette	Comstock L & Co m and d.....	.....
Robson John m and d.....	.....	Chandler Walter S d.....	.....
Sanford G P & Co d.....	Lavalle	Seyfried Martin d.....	.....

Brembach Fred d.....	Milwaukee	Neff A & Co p m.....	Oshkosh
Mabbett & Foster d.....		Chapman L G & Co p m.....	
Simpson E. B & Co commission.....		Thompson A p m.....	
Pierce R. W. & Co d.....		Vandercook & Furgerson p m.....	
Merrill Bros m and d.....	Merrillan	Gould J P sash doors etc.....	
Ketchum H & Co m and d.....		Porter & Batts sash doors etc.....	
Warren J M logger.....		Jenkins J & Co m and d.....	
Hayden A S logger.....		Harris M m and d.....	
Clark S & Son logger.....		Osborn & Christenson s m.....	
Merrill L G m and d.....		Conlee Bro & Co m and d.....	
Austin G A & Co m and d.....	Neillsville	Lane C & W logger.....	
Gallaher L W sash doors etc.....		Gill & Son loggers.....	
Gile & Halloway m and d (La Crosse Wis)		Freeborn John logger.....	
Kellogg A S.....	Neshoto	Turner Bros contractors.....	
Cooper Jones & Co m and d (Two Rivers Wis)		Sturtevant & Son contractors.....	
Cooper, Myers & Co.....		Stevenson Chas logger.....	
Cooper & Jones.....		Danforth Josiah logger.....	
Raymond & Jones.....		Reynolds Paul contractor.....	
Lamb W.....	New Franklin	Jewell, Lawrence & Co loggers.....	
Bradford, McCoy & Co m and d.....	Necedah	McNair Jas logger.....	
Fuller & Co sash doors etc.....		Doughty & Bro loggers.....	
Burch G B & Co m and d.....		Streeter Geo logger.....	
Dill M B & Co s m.....		Rockwell & McCord loggers.....	
Shorey P & Bro m and d.....		Bray & Chote loggers.....	
Weston T & Co m and d.....		Lynch John logger.....	
Sherry Henry d.....	Neenan	Wall & Fitzgerald loggers.....	
Sanford J B p m.....		Rumery & Kellogg loggers.....	
Hewitt & Woods m and d.....	Neillsville	Miller L J logger.....	
Clark, Eyerly & Breed, m and d.....		Fuinely & McDonald logger.....	
Weston & Schofield, loggers.....		Eightme R P logger.....	
Boardman & Palmer m and d.....		Stevenson, Badgert & Co m and d.....	
King G W m and d.....		Williamson G M & Co p m.....	
Green A logger.....		Wetherby David logger.....	
Lindsay F D logger.....		McAllyster J P logger.....	
Putnam L G d.....	Neosho	Hanson W E logger.....	
Smart J & E (manufacturers bridge),... New Lisbon		Crowell & Son logger.....	
Hale & Springsted m and d.....	New London	Webb, Albert & Co s m.....	
Dixon H S m and d and staves.....		Myers & Van Every s m.....	
Dougherty, Delano & Demming sash doors etc.....		James & Stille d.....	
Ketchum H m and d (Merrilan Wis).....		Lines, Libbey & Co p m.....	
Jacobs E P m and d.....	New Richmond	Morgan Bros m and d.....	
Johnson Bros m and d.....		Weed J H & Co m and d.....	
Pierce & Son m and d.....		Fraker J S s m.....	
Brown J & Co m and d.....	Northport	Spaulding & Peck m and d.....	
Wisconsin Mfg Co m and d.....		Campbell Wm & Sons m and d.....	
Putnam & Blair sash doors etc.....	Oakfield	Libby D L & Co m and d.....	
White J T & Co p m.....		Regan, Cheney & Pratt m and d.....	
Streeter J & A C & Co d.....	Oconomowoc	Doe & Miller m and d.....	
Roll & Turnham p m and sash doors etc.....		Ripley & Mead m and d.....	
Vilas G d.....		E. C. Kellogg logger.....	
Woodruff Bros d.....		John A. Paige Pres Wolf River Broom Co..	
Livermore & Co m and d.....	Ogdensburg	Durby & Curran s m.....	
Brunquest W m and d.....	Oconto	McMillan R. & Co m and d.....	
Flanders W B logger.....		Sawyer P & Son m and d.....	
Goodrich T B logger.....		Raine R N & Co m and d.....	
Luby logger.....		Reed L B & O B m and d.....	
Orr, Newell & Co m and d.....		Sheldon L P & Son m and d.....	
Jacob Spies m and d.....		Laabs J & Co m and d.....	
Leigh John m and d.....		Buckstaff Bros & Chase m and d.....	
Oconto Lumber Co m and d.....		Foster & Jones m and d.....	
Comstock & Simpson m and d.....		Henderson & Wilson d.....	Palmyra
Holt, Balcom & King m and d.....		Mitchell Bros d.....	
Fierce L M p m and sash doors etc.....		Gray A D m and d.....	Pepin
Winslow, England & Co m and d.....		Peshtigo Co m and d.....	Peshtigo
Loosey Chas d.....	O'Kee	Pruzmann Henry d.....	Pewaukee
Vanderpool & Clark d.....		Frisbee & Westover d.....	Pine River
Woodley Samuel d.....		Gratiot E H d.....	Platteville
Culver E d.....	Ontario	Lovelson F m and d.....	Plum City
Lovejoy & Richards d.....	Oregon	Bowman G M d.....	Plymouth
Harris D d.....	Orfordville	Mc Graw E M & Co d.....	
Johnson H & Co m and d.....	Omro	Wentworth, McGregor & Co d.....	Portage City
Morton, Arnold & Morton p m.....		Carnegie A p m.....	
Webster & Foster m and d.....		Lyon D B & Son d.....	
Wilson A m and d.....		Neavel & Davis d.....	Potosi
Foster N C m and d.....	Owego	Schneider Joseph d.....	
Hall Chas s m.....	Onalaska	Jamison Hugh d.....	Poynett
Hayden L D (La Crosse Wis).....		Reynolds & Lenfeldt p m.....	Prairie du Chien
Moore R M (La Crosse Wis).....		Smith & Foster m and d.....	
Nichols Chas H & Co m and d.....		Weston T & Co m and d (Necedah).....	Prairie du Sa
Bradley C G m and d.....	Osceola	Meacham & Bro p m.....	Presco t
Stapels C H logger.....		Green G d.....	Princeton
Dresser & Wilson m and d.....		Gillon N.....	Pine Grove
Talboys & Hanscome m and d.....		Glawe C.....	
Kanpp L E m and d.....	Ostkosh	Bruce, Fuller & Co.....	Rock Falls
		Garland & Nichols.....	

Peck S B & Son d.....	Racine	Meehan Bros m and d (Linwood)....	Stevens' Point
Driver Thos p m.....		McDill T & Bro m and d.....	
Kelly, Murray & Co d.....		McMillan & Sons m and d.....	
Kensie W D & Co sash doors etc.....		Moe Louis I logger.....	
Miner E B & Co sash doors etc.....		Lester & Plummer m and d.....	
Slawson Jas R & Co d.....		Park G L logger.....	
Hasley & Wilson d.....	Randolph Station	Pike E L logger.....	
Tremble & Doud, State d.....		Perry I & J logger.....	
Cushman A G.....	Readstown	Rennie John logger.....	
Schofield & Co m and d.....	Red River	Robeson J M and d.....	
E E Henderson m and d.....	Red Cliff	Reading & Van Order shingles.....	
Smith Timothy.....	Reedsburgh	Richardson Chas logger.....	
Snow W H d.....	Reeseville	Clifford Wm J logger.....	
Remington H W m and d.....	Remington	Rousseau M A m and d.....	
Rudolph C J.....	Richland Centre	Sherman S A m and d.....	
Richardson Mrs. W d.....	Richland City	Scott Bros m and d.....	
Learmouth J d.....	Rio	Sheckels Wm logger.....	
Barlow J B & Co d.....	Ripon	Walker & Wadleigh m and d.....	
Lanning A p m.....		Whitney Ebenzer logger.....	
Chinock J H s m.....	River Falls	Wade Geo & Co shingles p m.....	
Foss H W d.....	River Side	Welch Adam logger.....	
Shirland & Co s m.....	Robinson	O C Wheelock logger.....	
Pease D G m and d.....	Rockbridge	Callahan Chas logger.....	
Hawn Charles m and d.....	Rock Elm	Redfield John logger.....	
Pedrick M d.....		Isherwood J & H logger.....	
Bowman Na m and d.....	Roundhill	Johnson J O logger.....	
Moore J P & Co d.....	Royalton	Martin John R logger.....	
Judd, Walker & Co m and d.....	Saint Croix	Clark Owen m and d.....	
Roberts George m and d.....	Sandy Bay	Cooper B F m and d.....	
Halasz Chas d.....	Sauk City	Cronkrite, Plummer & Co m and d.....	
Obrecht C d.....		Clements D R logger.....	
Cowles H K & Bro m and d.....	Scott	Cook Cornelius logger.....	
Girard & Co m and d.....	Seneca, Wood Co	Curran H & J D loggers.....	
Campbell Y d.....	Sharon	Severson S H d.....	Stoughton
Daniels G d.....	Shawano	Turner O M d.....	
M H McCord logger.....		Ardt F p m.....	Sturgeon Bay
Beecher L S logger.....		Wright Rufus m and d.....	
Miller, Mathias m and d.....		Anderson Geo.....	Seymour
Klebesadel & Miller m and d.....		McIntosh, Ross & Perry m and d.....	
C. D. Westcott logger.....		Callon Wm m and d.....	Sherma
Asa Hicks logger.....		Gray J m and d.....	
H E Howe, logger.....		Klaus & Wright m and d.....	Suamico
C. Crowley logger.....		Bruce J & Co.....	
C W Upham logger.....		Cook & Sons.....	
Hockner A d.....	Sheboygan	Trumble M E & Co m and d.....	
Thompson & Schroeder d.....		Gray O m and d.....	
Winters M d.....		Lamb, Watson & Co m and d.....	
Weeks A L d.....		Marshall & Co.....	
Haseltine C P m and d.....	Sherman	Weed A & Co m and d.....	
Kelly W P & Co m and d.....		Howard John D m and d.....	Superior
Bishop Bros staves and m and d.....	Sherwood	Peylon H M & Co m and d.....	
Nugent & Collins m and d.....		Angell W H & Son d.....	Sun Prairie
J. H. Parks logger.....	Shiocton	Eldr-d Anson m and d.....	Stiles
Mason, Barnes & Co m and d.....		Zimmermann W d.....	Theinsville
W. D. Jordan m and d.....		Huet John.....	Trim Bell
Harriman Samuel m and d.....	Somerset	De Coursey M m and d.....	Trap River
Irwin O L, Maple d.....	Sparta	Gleason & Squires m and d.....	Tomah
Holden G B d.....		Warren & Gamble m and d.....	
Selson Bros p m.....		Barrett J M d.....	Trempeleau
Walker J H d.....		Reed Joseph.....	Tyrone
Farnum E B d.....	Springfield, Walworth Co	Mann Joseph & Co m and d.....	Two Rivers
Hopkins P G d.....		Cooper & Jones m and d (Manitowoc).....	
Bennett T m and d.....	Star	Goyt C.....	Ualo
De Jean T D & A W m and d.....		Foster N C s m.....	Upper Duck Creek
Jeely & Son m and d.....		Lucas J & Bro s m.....	
Kellogg & Son m and d.....	Stephensville	Hamlin & Ford d.....	Watertown
Wunderlich Z m and d.....		Bray, Robinson & Co d.....	Waldo
Smith & Halsted Bros m and d.....	Stockbridge	Sibley O L d.....	
Stafford L R.....	Staffordsville	Whitney & Darling d.....	Waldo
Blake & Mitchell loggers.....	Stevens' Point	Cooley C F & Co m and d.....	Waubesa
Benson P & Bro loggers.....		Howlett & Co p m.....	Waupaca
Burns, Thompson & Co m and d.....		Payne & Co m and d.....	
Boynton N m and d.....		Smith & Foster.....	Wauzeka
Brown E D m and d.....		Lewellen & Lunn.....	Waterloo
Bean T G & Son m and d.....		Squires & Sheldon.....	
Campbell P logger.....		Hamlin J H & Co d.....	
Homestead Seth logger.....		Streeter J & A C & Co W Water d.....	
Gilchrist A B logger.....		Hammond Alfred.....	Waukechon
Goodhue Geo J, Jr logger.....		Semple A.....	
Hungerford Seely logger.....		Semple F.....	
Hutchinson & Bro m and d (Eau Claire)		Morse O A d.....	Waupun
Hubbard — shingles.....		Hollendyke N d.....	
Karner S H m and d.....		Richardson Silas d.....	Waukesha
Knox Bros m and d.....		Kimball R N p m and s m.....	
		Dodd Sam'l p m.....	

Hartwell C M s,sh doors etc.....	Waukesha	Alexander W, logger.....	Wausan
Andrews & Parcher m and d.....	Wausau	McIndoe H, m and d.....	
Callon John T m and d.....		Fellows D, logger.....	
Callon Wm m and d.....		McIntosh H, m and d.....	
Ancult & Callon m and d.....		McInnis D, logger.....	
Allen Henry.....		Tyner S, logger.....	
Bernhard & Simpson loggers.....		Nicol's Ed, logger.....	
Clarke J C m and d.....		Champagne P B, logger.....	
Clark T W logger.....		McDonald M, logger.....	
Cohn & Curran m and d.....		Werhim & Kickbush, p m, sash, doors, &c.....	
Daniels H s m.....		Enderby & Austin staves.....	Wellington
Miller Hermann logger.....		McQueen, Davis & Co d.....	Werner
Kickbush & Bro loggers.....		Shell Bros d.....	West Salem
Leahy Capt J logger.....		Littlejohn A M d.....	
Lawrence & Peters loggers.....		Weed, Gummaer & Co m and d.....	Weyauwega
Manson Rufus m and d.....		Nutt M E & Phillips s m.....	Winneconne
McCrosen Jas logger.....		Ingersoll, Rising & Co m and d.....	
Plummer B G m and d.....		Jones, Wellington & Co m and d.....	
Single Ben m and d.....		McArthur & Co m and d.....	
Single Jas m and d.....		Starks, Stickle & Co p m.....	
Stewart A & J m and d.....		Schultz C.....	Woodland
Zastrow Ed logger.....		Day C & Co m and d.....	Wrightstown
Genswan, J, logger.....		George V. Brill p m.....	
Single B F, logger.....		Mc Kesson staves.....	
Altheron & Dorn, logger.....		Converse H.....	Wyocena
Adam H, logger.....		Wells & Craig.....	
Clark Wm, logger.....		King P & Sons d.....	Wyoming
Borehardt H, logger.....		McCutchen H d.....	
Dahm John, logger.....		Haverson & Peterson m and d.....	Yankeetown
Adam John, logger.....		Twing A.....	

MICHIGAN.

Hoxie L S m and d.....	Acme	Au Sable Lumber and Shingle Co m and d.....	Au Sable
Headley John.....	Ada	Backus & Bros m and d (Detroit).....	
Raker D M d.....	Adrian	Charles Stone Timber Co (Detroit).....	
Berry James m and d.....		Colwell Smith & Langstaff m and d.....	
Maxwell A & Co p m.....		Glennie J W m and d.....	
Wright Peter m and d.....	Alamo	McDonald D A.....	
Cosad & McGregor.....	Albion	Moore Alger & Co m and d (Detroit).....	
Haynes & Beard m and d.....	Alcona	Moore & Tanner.....	
Folkerts F C & Co m and d.....	Algonac	Vaughan S.....	
Smith A & S S m and d.....		Richardson J C m and d.....	Auster City
Allegan Mfg. Co p m.....	Allegan	Wilson H D s m.....	Auster City
Bass R.....		Hawley A M.....	Averill's Station
West N B sash doors etc.....		Miller A & G m and d.....	
Roberts Richard m and d.....	Allendale	Steele C s m.....	
German & Dewey m and d.....	Allens	Kroetzer G & Co p m.....	Bainbridge
Wright Ira.....		Fabeock Surret & Co m and d.....	Baltimore
Winchester & Parish staves.....		Crutcher G W m and d.....	
Pierce Hall & Ward m and d.....	Alma	Childs E J sash doors etc.....	Bangor Van Buren Co
Wise & Co sash doors etc.....	Almena	Coombs & Smiley m and d.....	
Farouq Fuus K m and d.....	Almont	Green & Thompson m and d.....	
Bewick Comstock & Co m and d.....	Alpena	Nyman J H m and d.....	
Campbell Potter & Co m and d.....		Moore Smith & Co m and.....	Banks Bay Co
Davis D G & Co s m.....		Taylor & Monthrop m and d.....	
Doane Bingham & Co sash doors etc.....		Keystone Lumber Co m and d.....	
Fletcher A F & Co m and d.....		Bendry James m and d.....	Baraga
Fulkerts & Butterfield m and d.....		Buck Hoyt & Co p n.....	Battle Creek
Gilchrist Frank m and d.....		Dwinnell Pettee & Edwards sash doors.....	
Hough Hillard & Co m and d.....		Ellison H H & Co d.....	
Mason Luce & Co m and d.....		Halbert & Knight sash doors etc.....	
Minor J S & Co shingles.....		Leggett S L p m.....	
Morse H K.....		Mason Rathbone & Simmons d.....	
Prentise Geo & Co m and d.....		Avery Murphy & Co m and d.....	Bay City
Richardson Avery & Co m and d.....		Ames Bros m and d.....	
Richardson Arthur R.....		Archibald & Bradley m and d.....	
Richardson Chas W.....		Bradley H M & Co m and d.....	
Richardson Geo.....		Bradley N B & Co m and d.....	
Spratt Aug.....		Carney R J commission.....	
Spratt Frank.....		Carney T sash doors etc.....	
Cummings Geo W s and m.....	Arnsden	Carrier John & Co m and d.....	
Ferdon John & Son d.....	Ann Arbor	Chapin & Barber m and d.....	
Krapp Corrad d.....		Chapman G P & B.....	
Wright J S m and d.....	Antrim	Dolson Chapin & Co m and d.....	
Battershall L A m and d.....	Arcade	DeWitt Jas N m and d.....	
Jackman J F m and d.....	Armada	Eddy Avery & Co m and d.....	
Miller Caleb & Sons m and d.....		Folsom & Arnold m and d.....	
Battershall L A m and d (Arcade).....	Attica	Gardner F F & Son.....	
Darwood & Daley m and d.....		Gates & Fay m and d.....	
Jennes J N & Co m and d.....		Haiser F & A.....	
Williams W m and d.....		Hay Bu'nan & Co m and d.....	
Bracy & Clark p m.....	Augusta	Hitchcock & Ingraham m and d.....	
Davis Wilson m and d.....	Aurelius	Miller Albert m and d.....	
Davis B G & Co m and d.....		McEwen John m and d.....	

McGraw John & Co	m and d (Portsmouth). Bay City	Jerome T & Co	m and d.....Carrollton
McRoberts & Savage	square timber.....	Litchfield E C	m and d....(New York City)
McLean Seth & Son	m and d.....	Merrill C & Co	m and d (Detroit).....
Moore Smith & Co	m and d.....	Saylor T & Co	m and d.....
Patrick M S	.....	Shaw & Williams	m and d.....
Peters W	m and d.....	Tilden & Sackett	m and d.....
Pitts & Cranage	m and d.....	Congdon & Colton	m and d.....Carson City
Ramsdell James	.....	Lacy John G	sash doors etc.....
Richards Miller & Co	m and d.....	LaDue & Young	m and d.....
Rouse J M	m and d.....	Crawford Frank	m and d.....Caseville
Rust A & Co	m and d.....	Barber W L	.....Cedar Springs
Rust Hay & Co	.....	Beckhart Jacob	p m.....
Sage H W & Co	m and d (New York city).....	Benedict J O & E R	s m.....
Sanford J S	p m.....	Graham C & Co	m and d.....
Shearer James & Co	m and d.....	Grosvenor E	m and d.....
Stevens & Shaller	m and d.....	Moon Chas B	m and d.....(Chicago)
Smith & Westover	.....	Hubbard & Wood	m and d (Chicago).....
Smith & Wheeler	p m.....	Esterly Geo W & Co	m and d.....Charlevoix
Talbert James	.....	Charlotte Manufacturing Co	staves.....Charlotte
Taylor Moulthrop & Co	.....	Curtis Houck & Bennett	p m.....
VanEtten Kaiser & Co	.....	Hart & Richardson	p m.....Charlotte
Webster S H & Bro	m and d.....	Johnson N A	p m.....
Westover Culver & Co	.....	Loring Allen T	.....
Whilthauer Schuerman & Co	.....	Merritt & Co	p m.....
Whipple Parmely & Co	m and d.....	Smith J W H & Co	m and d.....
Watrous Bros & Co	m and d.....	Hurd & Smith	m and d.....Cheboygan
Watrous M & Sons	m and d.....	McArthur Smith & Co	m and d.....
Hopkins Bros & Wise	m and d.....Bear Lake	Mattoon S A	m and d.....
Anderson D H & Co	m and d.....Bear Lake Mills	Nelson Strahn & Co	m and d.....
Wilson Lather & Wilson	m and d.....Belding P O	Prentice Geo H	m and d (Detroit).....
Davey W & Co	d.....Bellevue	Smith David	m and d.....
Hull Bros	p m.....	Smith Thompson	m and d.....
Smith A A & Co	m and d.....Bell River	Smith E & F	s m.....
Remick E & Co	m and d.....Benona	Vorce Barker & Co	m and d.....
Williams H	m and d.....Benton Harbor	Weller J B C	m and d.....
Cave L W	m and d.....Benzonia	Goodale J C	m and d.....Chesaning
Fitch & Phelps	m and d.....Big Rapids	Nason R H & Co	m and d.....
Green L H	m and d.....	Garton & Davenport	m and d.....Chester
Ives S	m and d.....	Cobb J W	m and d.....Clam Lake
Monroe Bros & Rose	s m.....	Coombs & Bro	m and d.....
Stimson L D	m and d.....	Harris & Bro	m and d.....
Stinson & Clark	m and d.....	McKinnon D C	.....
Wood H B	sash doors etc.....	Mitchell Geo A	m and d.....
Ballard & Co	m and d.....Birch's Mills	Shackleton & Green	m and d.....
Stanton Leroy s	m.....	Starrett Henry	d and p m.....Clinton
Weller John	m and d.....	Linderman & Rieker	m and d.....Clintonville
Whitney M S	m and d.....	Curry Jos L	.....Clio
Brown John	m and d.....Bird	White John	.....
Hipp & Hays	m and d.....	Maxwell H N & Co	m and d.....Clyde Mills P O
Smith W H	m and d.....Birmingham	Vincent Edward	m and d.....
Ferry & Sons	m and d (Grand Haven).....Black Lake	Atkins Gilbert & Co	p m.....Coldwater
Blissfield	.....	McLane & Frith	d.....
Jipson H	m and d.....	Sweet G C	m and d.....Columbia
Wiley, Lane & Co	staves.....	Hemingway H L & J L	m and d.....Columbiaville
Anable T C	m and d.....Bloomingdale	East Thos	m and d.....Columbus
Conger & Broadwell	m and d.....	Hungerford R H	d.....Concord
Holmes L K	m and d.....	Boubright & French	m and d.....Constantine
Kilheffer & Ames	m and d.....	George & Tweedall	sash doors etc.....
Jenson L & Co	s m.....Blue'Lake	Harwood H J & Co	m and d.....
Schmitz Anthony	m and d.....Blunfield	Jones Wolf & Co	m and d.....Coral
Bond Bros	m and d.....Bonds Mills	Hart J P	m and d.....
Bowen E H & Son	m and d.....Bowen's Mill	Wagley John	.....Cross Village
Headley Silas	m and d.....	Backart Geo	m and d.....Croton
Richardson J H	m and d.....Browne	Collins David	m and d.....
Brown Sarah	D m and d.....Breedsville	Higbee Nelson	m and d.....
Purley Putnam & Son	m and d.Bridgenan Laketon P	Rice Wm	m and d.....
Weed B	staves.....	Oneida Lumber Co	m and d.....Crow Island
Brucker F & Co	shingles.....Bridgeport Center	Fuller & Smith	m and d.....Crystal P O
Hill L L	m and d.....	Coffin & Cuddeback	m and d.....Dallas
Hodgeman L	m and d.....	Needham & Wilson	m and d.....Dayton
Ketchum Bros	shingles.....	Wilson Jas H	m and d.....Dearborn
Phelps & Wyman	m and d.....Bridgeville	Wallace John B	m and d.....Decatur
Holmes J	m and d.....Bronson	Bull & Ackley	m and d.....
Richards & Fox	m and d.....Buchanan	Rawson L T	p m.....
Roe Charles	m and d.....	Roger A H & Co	m and d.....
Sherwood Alonzo	m and d.....	Warner J P	m and d.....
Pierce L	m and d.....Burlington	Blinn & Row	staves.....Deerfield
Herrington & Bros	m and d.....Burnips Corners	Lovett & Smith	p m.....
Baker O R	p m.....Camden	Pack rd & Son	m and d.....
Mckinley James	p m.....	Adams & Ferguson	m and d.....Detroit
Welker H R	m and d.....Campbell	Allen E G	d.....
Downey Bros	m and d.....Capax	Avery & Murphy	m and d.....
Tibbals Botsford & Co	staves.....	Backus & Bro	m and d.....
Ballantine H A & Co	m and d.....Carrollton	Beass J H	d.....
Carrollton Lumber Co	m and d.....	Bewick, Comstock & Co	m and d.....
Gould Erastus T	m and d.....		

Bigelow A E d.....	Detroit	Allison J P m and d.....	East Sagina
Brooks C F m and d.....		Atwood W Q m and d.....	
Campbell E P d.....		Ballantine H A & Co m and d.....	
Carrier August d.....		Bissell A G & Co m and d.....	
Carrier Byron d.....		Burt W R & Co m and d.....	
Chisholm Jas d.....		Bundy & Youmans m and d.....	
Crapo W W m and d.....		Burnham & Still m and d.....	
Damon J B T & Co m and d.....		Cummings L E & Co m and d.....	
Detroit Lumber & Wooden Ware Works.....		Duncan & Gamble m and d.....	
Dewey J & Son sash doors etc.....		Dutton C S staves.....	
Dingeman & Rabaut sash doors etc.....		Estabrook & Mason m and d.....	
Dubois Lewis p m.....		East Saginaw Manufacturing Co.....	
Dwight Wm M & Co m and d.....		Eaton, Potter & Co m and d.....	
Faulconer R C d.....		Eddy C K m and d.....	
Ferguson A & Co d.....		Eddy, Avery & Co m and d.....	
Fletcher Geo M m and d.....		Edwards & Sanborn m and d.....	
Flynn John sash doors etc.....		Elsworth Arthur L.....	
Poster Joseph E d.....		Finnal Wm.....	
Gamble P M d.....		Gamble John m and d.....	
Green Geo B & Co d.....		Gardner F F & Sons.....	
Hebard Chas d.....		Gebhart & Estabrook m and d.....	
Hubbard & King d.....		Glynn P & Co m and d.....	
Huebner E sash doors etc.....		Goddard E G m and d.....	
Huff & Vandermullen d.....		Grant C W & Co m and d.....	
Ingersoll J W p m.....		Grant & Saylor m and d.....	
Ives, Green & Co m and d.....		Hill Jas H.....	
Japes John sash doors etc.....		Hunter Bros.....	
Jessup & McCune d.....		Hoyt Jesse m and d (N Y City).....	
Kershner & Rea d.....		Johnson T B s m.....	
Klien Martin d.....		Jones Chester B m and d.....	
Linsey & Co m.....		Lee Charles m and d.....	
Loud Gay & Co m and d.....		Mc Cormick A W.....	
Lyon Isaac L d.....		Mc Douglar R B.....	
Nason Chas E d.....		Lathrop, Insko & Co m and d.....	
Merrill & Palmer m and d.....		Marks & Flitz.....	
Moffat Hugh m and d.....		Merrill Chas & Co m and d.....	
Moore Chas F d.....		Mitchell & Roland Lumber Co m and d (Cincinnati).....	
Moore Frank d.....		Oneida Lumber Co m and d.....	
Moore F & S d.....		Ortman Chas L m and d.....	
Moore & Alger m and d.....		Owens & Brewer m and d.....	
Oakes Wm d.....		Rose D F & Co m and d.....	
Osborne C F & Co d.....		Rust J F & Co m and d.....	
Perley J H d.....		Saylor T & Co m and d.....	
Pitts & Cranage m and d (Bay City).....		Sears & Holland m and d.....	
Prentice Geo H m and d.....		Ten Eyck C E s m.....	
Ramm & Co sash doors etc.....		Terry Seely & Spencer m and d.....	
Rea W J d.....		Tolfree & Simpson m and d.....	
Remick R C d.....		Turner H m and d.....	
Ross Geo d.....		Tuttle & Pease m and d.....	
Ross Daniel A & Co m and d.....		Thompson, Camp & Potter m and d.....	
Ross Geo A & Co d.....		Warner & Eastman m and d.....	
Ross A & Co d.....		Wiggins G B & J m and d.....	
Schneider Stephen sash doors etc.....		Wright & Co m and d.....	
Skillings & Whitney Bros m and d.....		Yawkey, Wideman & Co m and d.....	
Standish J R pine lands.....		Adams, Jolley & Co m and d.....	East Tawas
Steele A M d.....		Bliss & Pierce m and d.....	
Tegeler Chas sash doors etc.....		Grant W G & Son m and d (N Y city).....	
Turner Robert sash doors etc.....		Smith H P & Sons m and d.....	
Warriner W d.....		Staats & Quackenbush p m and sash etc.....	
Weber J F & Co d and sash doors etc.....		Garton & Davenport m and d.....	Eaton Rapids
Whittemore & Prentice m and d.....		Perrine D W & S C m and d.....	
Wight H A & S G m and d.....		Stevens C W staves.....	
Williams, Osborne & Co m and d and p m.....		Hipp B W.....	Eau Claire
Wood W H & Co sash doors etc.....		Anderson J H m and d.....	Edgerton
Homes Geo m and d.....	De Witt	Becker G m and d.....	
Copeland R P.....	Dexter	Bradfield E m and d (Ada).....	
Pratt Geo.....		Cain James m and d.....	
Gray Thos m and d.....	Douglas	Cook & Scarvel s m.....	
Judd W sash doors etc.....	Dowagiac	House Oscar m and d.....	
Sill Benj. D & Son m and d.....		Kidder M C m and d.....	
Starett C p m.....		Monroe & Jones m and d.....	
Darwood & Daily m and d.....	Dryden	Porter D m and d (Rockford).....	
Mears C m and d (Chicago).....	Duck Lake	Porter Seth s m.....	
Hall, Ward & Brewer m and d staves.....	Dundee	Truax Jas H s m.....	
Hunt, Wheeler & Co sash doors etc.....		Dexter & Noble m and d (Chicago).....	Elk Rapids
Morse Nathan m and d.....		Blair E W p m.....	
Stowell J A m and d.....		Leach & Ramsey m and d.....	
Kellogg & Sawyer m and d.....	Dunningsville	Mc Quinton Robt m and d.....	
McCrumb Geo W m and d.....	Eagle	Moore J B m and d.....	
Mitchell & Mahan m and d.....	East Bay	Butler & Gallagher m and d.....	Emmett Station
Bushnell John m and d.....	East Leroy	Herman & Son m and d.....	Erie
Quick, Fish & Andrews m and d.....		Whittington W & D E m and d.....	
Eastman Galen m and d (Grand Haven).....	Eastmanville	Glaser Emil p m.....	Escanaba
Hefferan Thos m and d.....		Ames Bros m and d.....	Esserville
Thayer Edwin m and d.....			

Carrier John & Co m and d (Bay city).....	Essexville	Farrin & Co.....	Grand Rapid
Ferris & Hull m and d.....	Estella—Summer P O	Knight Geo L & Co m and d.....	
Hicks James m and d.....		Krum Foster & Co p m.....	
Tucker, Morris W & Co.....		Long A B & Sons m and d.....	
Kanfield & Andrews m and d.....	Eureka	Lore R W staves.....	
Davis & Curtis m and d.....	Evart	McElmer J G m and d (Lockwood)....	
Farewell Jas G m and d.....		Mackey Walker & Co lath mill (Chicago)	
Hamilton & Mason s m.....		Nichols & Co p m.....	
Lamb & Matthews m and d.....		Norton A F & Co.....	
Palmer, Welch & Russ m and d and staves....	Exeter	Pardee Cook & Bro m and d.....	
Scofield S A m and d.....		Pew G H p m.....	
Travor staves.....		Powers W H p m.....	
Bloomer E J m and d.....	Fairfield	Powers W T & Son.....	
Calvin John m and d.....		Putnam Enos.....	
Fuller & Sager p m.....		Quimby J L.....	
Odell S & J m and d.....		Roberts A & Son.....	
Myer Henry shingles.....	Fair Haven	Robinson S & Co p m.....	
Schnoor H C m and d and staves.....		Ryan Young & Co m and d.....	
Farwell & Sawyer m and d.....	Fair View	Ward F & Co.....	
Parkins & Sons m and d.....		Webster A & Co p m.....	
Batcheller, Slaught & Co m and d (Chicago).....	Ferrysburg	Wheeler Reuben sash doors etc.....	Grand Rapids
Slatt & Co m and d.....		Wilkins & Bachman p m.....	
White, Glover & Co m and d.....		Withey L H & Co m and d.....	
Balley C C m and d.....	Fife Lake	Wonderly Lumber Co m and d.....	
Gilbert Ira W m and d.....		Dewory E m and d.....	Grandville
Walter W L s m.....	Flat Rock	Jennison H.....	
Atwood J B & Co m and d.....	Flint	Belknap & Oliver sash doors etc.....	Greenville
Beardsley, Gillis & Co sash doors etc.....		Clark & Rhinesmith Lumbering Co.....	
Begole, Fox & Co m and d.....		Fuller & Gowen m and d.....	
Briscoe & Lockwood.....		Hart Henry m and d.....	
Busenbark & Stone.....		Hutchings S G.....	
Carpenter Samuel m and d.....		Jenks C C s m.....	
Crapo W W m and d.....		Wright Bros.....	
Decker Grant staves.....		Pardee Cook & Blanchard m and d (A Par-	
Eddy Chas C & Co m and d.....		dee & Co New York).....	Hamlin
Eddy Jerome p m.....		McRoberts A m and d (Bay City).....	Hampton
Gibbs D & Co.....		Backus A J m and d (Backus & Bro De-	
Hamilton Wm m and d.....		troit).....	Harrisville
Hascal H C m and d.....		Westons Colwell & Co m and d.....	
Lee & Wilcox.....		Hill's W m and d.....	Hart
McCreery W B p m.....		Allen & Crook m and d.....	Hartford
McFarland A m and d.....		Hinckley Bros staves.....	
Smith Hiram m and d.....		Olds & Crandal sash doors etc.....	
Davenport Geo & Co m and d.....	Florence	Walker s m.....	
Grant & Saylor m and d (East Saginaw)....		Bentley J W & C G sash doors etc.....	Hastings
Haskins, Martin & Wheeler m and d (East Saginaw).....		Hortin & Jacobs m and d.....	Hazleton
Merrill Chas & Co m and d (East Saginaw)		Kellogg & Sawyer m and d.....	Heath
Shaw & Williams m and d.....		Starker D F s m.....	Hemlock
Ford River Lumber Co m and d (Chicago).....	Ford River	Blodgett D A m and d.....	Hershey
Smith & Kelley m and d (Au Sable).....	Forester	Gerrish Murphy & Co m and d.....	Hillsdale
Dwyer Geo G s m.....	Frankfort	Sutton & Fisher d.....	Holland
Hubbell & Wakelield p m.....		Ferris R B m and d.....	
Hileman & Hessen m and d.....	Freeport	Vanderveer E & Co staves and shingle mill.	
Fruitport Mfg Co m and d.....	Fruitport	Buzzell Bros sash doors etc.....	Holly
Gage Joseph m and d.....	Gagetown	Bavid Robt A m and d.....	Hopkins
Lloyd & McNair m and d.....	Gaines Station	Hillard L m and d.....	
Sayers Bros m and d.....		Chubb J F s m.....	Howard City
Blakeslee Geo A m and d.....	Galien	Lord & Kipp s m.....	
Batchelor Slatt & Co m and d.....	Grand Haven	Morgan & Quick m and d.....	
Bigelow & Stone.....		Muson & Reed.....	
Outler D m and d.....		Barnard J E & Co.....	Howell
Dirk & Barker m and d.....		Blood E & Co.....	
Eastman Galen m and d.....		Wright J W sash doors etc.....	
Ferry & Bro m and d.....		R B Hubbard & Co m and d.....	Huron City
Gibson James.....		Bates Gould & Gorham s m.....	Ionia
Monroe & Howlett m and d.....		Colby E & Co m and d.....	
Reynolds & Emisay.....		Stanton & Son m and d.....	
Rysdorf & Busch m and d.....		Webber Bros m and d.....	
Stows C L.....		Bennett & Woods.....	Jackson
Wyman Buswell & Co.....	Girard	Brooks C F d (Detroit).....	
Ca le H E m and d.....	Grand Ledge	Baxter & Selridge p m.....	Jonesville
Bradley H Rose p m.....		Bixby Bros & Flagg d.....	Kalamazoo
Lamson Edmund m and d.....		Dewing & Son m and d.....	
Russell E s m.....		Kellogg J E & Haltenhaus m and d.....	
Barnhart & Osterhaut m and d.....		Sweetland & Co.....	
Borden A D & Co p m.....		Tyler & Turner p m.....	
Clancey John.....		O S Abbott & Co m and d.....	Kalkaska
Clark G B & Co sash doors etc.....		Ballou Gustin & Co m and d.....	Kawkwawlin
Comstock C C m and d.....		Wade & Pettys m and d.....	Lake Port
Crossette Graves & Co m and d.....		Ciley Bros & Co sash doors etc.....	Lamont
Cutcheon L M.....		Bellows W D & Bro m and d.....	Langston
Outler Robt.....		Briggs N H.....	
DeGraaf Vrieling & Co sash doors etc.....		Biggs Z K.....	
		Crawford & Co m and d.....	
		Norton J D.....	

Sprague R F	Langston	Sias John m and d	Midland
Wilcox & Briggs m and d		Carman & Tone m and d	Millbrook
Allen & Wise sash doors etc	Lansing	Howd Walter S m and d	
Clark & Harris m and d		Randall W & Bro m and d	Millburg
Longstreet & Lapham p m		Beck C F	Monroe
Ottis & Son d		Eisenman F A sash doors etc	
Scofford S G m and d		Noble W A	
Walker Gilman & Co sash doors etc		Root & Stevens sash doors etc	
Hughes & Bro m and d	Lapeer	Scranton J P	
Dodge C T m and d		Shaub Phillip	
Hemingway C M & Co p m		Terry M G	
Johnston Alex m and d		Dowling H P & Co p m	Montague
King Robt m and d		Ferry Dowling & Co m and d	
Millis J D & Son		White F H & Co m and d	
Peters F J s m		Weston Bros m and d	
Stevens Currier & Townsend m and d		Moore & Ferguson m and d	Monterey
Walker Bros m and d		Cook Pendleton & Jones s m	Morley
Powell Hauck & Bro m and d	Lawton	Cummer J & Son m and d	
Fray H P staves	Leslie	Gerrish E W	
Grout V H p m		Hugh W p m	
Russell S O		Fowle Benj m and d	Moscow
Moss Mills & Galge m and d	Lexington	Crittenden Chas d	Mt. Clemens
Nims Tewksbury & Co m and d		Hall & Shook m and d	
Woods J L m and d		Snook Bush & Mosier m and d	
French Wyman & Co m and d	Lockwood	Snook T W staves	
King Quick & Co m and d		Tucker E J m and d	
Mason & Ecker p m	Lowell	Hughes Bros m and d	Mt. Morris
Wooding & Hire m and d		Look Asher p m	
Donafer & Melendy m and d	Ludington	Weeks Hunton & Co m and d	
Foster & Stanchfield m and d		Fancher & Brazee m and d	Mt. Pleasant
Pere Marquette Lumber Co m and d		Abbey French & Co m and d	Muir
Roby Geo W & Co m and d		Begole J & Co m and d	
Ward E B m and d (Detroit)		Hayes Bros	
Niblack & Sage m and d	Macon	Hewitt W P s m	
Spafford & Conklin m and d	Manchester	Rumsey C Jr	
Butters Horace m and d	Manistee	Waxer & Fox m and d	
Canfield & Wheeler m and d		Wager & Whitman m and d	
Cushman Calkins & Co m and d (Chicago)		Willett A M & J W p m	
Dennett & Dunham m and d		Allen A M m and d	Muskegon
Engleman Salling & Babcock m and d (Milwaukee)		Beidler Mfg Co m and d	
Filer & Sons m and d (Milwaukee)		Bigelow W H & Co m and d	
Giffith Ruddock & Co m and d		Blodgett & Byrne m and d	
Hopkins Bros & Wise m and d		Browne Nelson & Co m and d	
Leitch Neil m and d		Chapin & Foss m and d (Chicago)	
Magill & Canfield m and d		Davis Chauncey & Co m and d	
Diller M F m and d		Easton Robt s p	
Pageot & Thorsen m and d (Stronach Lumber Co)		Gluc W & Co m and d	
Peters R G & Co m and d		Hall S C	
Reitz Bros m and d		Kelley Wood & Co m and d (Chicago)	
Sands Louis m and d		Mann A V & Co m and d	
Sibben S p m		Mason Lumber Co m and d	
Tabor & Huennekens m and d		Merrill J D & E W s m	
Tyson Sweet & Co m and d		Merrill & Palmer m and d (Detroit)	
Seaman Warren m and d	Mantou	Montague C S & Co p m	
Jones R m and d	Maple Rapids	Morrison & Flemming m and d	
Gallinger Adams m and d		Newaygo Co m and d	
Cobb J & Co staves	Marcellus	Outhwait G T	
Hunt A S m and d		Roberts & Hull m and d (Chicago)	
Baird W m and d	Marine City	Rutherford W & Co m and d (Chicago)	
McElroy C m and d		Ryerson Hills & Co m and d (Chicago)	
Silvernail & Trumbull m and d		Sandford S R	
Decker Chas m and d	Marion	Storrs & McDougal m and d	
Stevenson W M m and d		Torrent Esau m and d	
Alexander M J m and d	Marshall	Torrent John m and d	
Church Nelson m and d		Torrent & Arms m and d	
Bunce H E m and d	Marysville	Truesdell Gideon m and d	
Mills N & B m and d		White Smith & Swan m and d (Chicago)	
Snaborn W and d		Wilcox T B & Co m and d (Chicago)	
Darrow & Walker m and d	Mason	Wilson & Boyce m and d	
Huntington J L & C D m and d		Kirtland & Son staves	Nashville
Willett J m and d		Olds A W & Co m and d	
Peacock R m and d	Masonville	Baker W m and d	New Baltimore
Brown & Lacy m and d and sash doors etc	Matherton	Francisco & Bro staves	Newport
Lance & Jones sash doors etc		Johnson W S d	Niles
Mather Asaph & Vernon m and d		Tuttle Jos S d	
Dysinger D m and d	Memphis	Menard A E m and d	Nortonville
Mansfield J & Co m and d		Bently W m and d	North Branch
Bagley & Copps p m	Menomonee	Moyer A m and d	
Palson A p m		Lawrence Sidney m and d	Nunica
Stephenson Robt & m and d		Converse & Wickham staves	Oakley
Wright & Tweedle p m		Peck & Sackridge m and d	
Larkin John m and d	Midland	Baser J m and d	Ogden Center
Lindsay & Gamble m and d (Detroit)		Hodges J S m and d	
		King T m and d	

Hall Hiram m and d.....	Orleans	Curtis L B.....	Saginaw City
Smith Kelly & Dwight m and d.....	Oscoda	Gould E F.....	
Richardson Avery & Co m and d (Alpena). Ossineke		Green & Harding.....	
Robinson Cunningham Haines & Co m & d		Hardin & Babcock p m.....	
Ballou & Co sash doors etc.....	Otsego	Heather & Allison m and d.....	
Leighton S m and d.....		Jerome T & Co.....	
Benson C B m and d.....	Otter Lake	Ketchum D B s m.....	
Frisbie A H m and d.....	Ovid	Nester Bros.....	
Sowers Geo D & Co m and d.....		Newton & Smith.....	
Robinson & Miller p m.....	Owosso	Payne A B & Co m and d.....	
Woodward L E.....		Potts & Prieur.....	
Freeman G W & Co m and d.....	Palmyra	Rust Amasa.....	
Bathwick & Stevens m and d.....	Pavilion	Rust Eaton & Co.....	
Sager John m and d.....		Rust & Hay.....	
Everett J C sash doors etc.....	Paw Paw	Sturtevant, Green & Co m and d.....	
Freeman & Stinson m and d.....		Swift & Lockwood m and d.....	
Brown S A & Co m and d.....	Pentwater	Williams Geo F & Co m and d.....	
Nickerson & Calester m and d.....		Wright, Tipton & Co m and d and p m	
Sands & Maxwell s m.....		Wright & Wetherell m and d.....	
Stringer Frank m and d.....	Perrinsville	Willie Bros s m.....	
Huckley John m and d.....	Perry	Bentley H J m and d.....	St Charles
Woodworth W H m and d.....	Pewamo	Campbell D J.....	
Cone & Cutter m and d.....	Pierson	Freeman & Co.....	
McConnell W & Sons m and d.....	Pierson	Green D W.....	St. Charles
Pangham & Borden m and d.....		Kimberley C S.....	
Quincy & Bromley s m.....		Guernsey Chas.....	St Claire
Stone & Seeley m and d.....		Jenks B W.....	
Taylor & McMullen m and d (Wood Lake)..		Pew T & F.....	St Joseph
Walter & Bro m and d.....		Holcomb & Evans m and d.....	St Louis
Wensel & Bro s m.....		Brooks & Adams m and d (Detroit).....	Salzburg
Keeler S S & Co m and d.....	Pigeon Creek	Laderach Bros m and d.....	
Adams F E & Co m and d.....	Pine Grove Mills	Malone & Gardiner m and d.....	
Clements S N m and d.....		Root Bros s m.....	
Everest & Wise m and d.....		Smith C M & Co m and d.....	
Paris P G m and d.....	Pine Plains	Thompson W m m and d.....	Sand Creek
Paris S A m and d.....		Avery O W m and d.....	Sand Lake
Lantz John m and d.....	Pine River	Baird & Farnum s m.....	
Wood & Maxon m and d.....	Pittsford	Beaver, Miller & Co m and d (Et Wayne	
Richardson J C m and d.....	Plainfield Kent Co	Ind).....	
Topping M & Sons m and d		Carr J M m and d (Union City Ind).....	
and staves.....	Plainsfield Livingston Co	Dickinson Jerome m and d.....	
Bennett C H.....	Plymouth	Hafley P s m.....	
Ward David m and d.....	Pontiac	Hartt M & S m and d.....	
Ayers Learned & Co m and d.....	Port Austin	Heilner Geo W s m.....	
Haskells & Spaulding m and d.....	Port Crescent	Pangborn & Borden s m.....	
Wood J L & Co m and d.....		Roberts & Driggs m and d (Grand Rapids)	
Avery & Murphy m and d.....	Port Huron	Stone & Seeley m and d.....	
Batchelor J F & Son m and d.....		Twichel C B.....	
Bunce Z W & Son m and d.....		Ware E & Co.....	
Fish A & H m and d.....		Wilkins W L m and d.....	
Harrington D B m and d.....		Mercer & Slater m and d.....	Sarana
Haynes J m and d.....		Moffat A J m and d.....	
Hibbard W B & Co m and d.....		Moore H D m and d.....	Saugatuck
Howard & Son m and d.....		The Saugatuck Lumber Co m and d.....	
Jenkinson W staves.....		Abbott Chas m and d.....	Scio Township
Johnston John & Co m and d.....		Bathwick & Stephens m and d.....	Scott
Sanborn & Co m and d.....		Collingham J m and d.....	Sebewa
Skinner T S m and d.....		Friend J m and d.....	
Skinner & Ames m and d.....		Ambruster & Weimer m and d.....	Sebewaing
Wells F L.....		Dunn J & Sons m and d.....	Seville
Bergen P P staves.....	Portland	Blanchard J C & Co m and d.....	Sheridan
Bowser, Griffin & Co sash doors etc.....		Fargo D F & Co m and d.....	
Dilley J staves.....		Stearns J D m and d.....	Smyrna
Erskine E J m and d.....	Port Sanilac	Beckwith & Co.....	South Bay City
Thompson T & J S m and d.....		Braddock A C & Co p m.....	
Prentiss Geo H m and d (Detroit).....	Prentiss Bay	Dupham & Whipple.....	
Quimby J L m and d.....	Quimby	Miller A & Co m and d.....	
Alden, Sutton & Co staves.....	Quincy	Stevens A & Co m and d.....	
Hawley Martin.....		Watrous Bros & Co s m.....	
Wilbur R W m and d.....		Watrous M & Son m and d.....	
Exelby Jesse m and d.....	Ridgeway	Byer G W & Co m and d.....	South Haven
Fritz F m and d.....	Riga	Wilson S P m and d.....	
Pack, Jenks & Co m and d.....	Rock Falls	Ann Arbor Lumber Co m and d.....	South Saginaw
French Geo m and d.....	Rockford	Briggs & Co s m.....	
Porter Dennis m and d.....		Bundy & Martindale s m.....	
Mollitor A & Co m and d.....	Rogers City	Bundy & Yeoman m and d.....	
Ayer A B m and d.....	Romeo	Curtis & Eastbrook m and d.....	
Andre Alex.....	Saginaw City	Boice & Kearny m and d.....	Spring Lake
Arnold & Fulsom (Albany N Y).....		Cutler & Savidge m and d.....	
Barnard & Binder m and d.....		Marads & Maxwell m and d.....	
Blanchard C N m and d.....		Monroe Boyce & Co m and d.....	
Burnham, Still & Co.....		Sison & Seymour m and d.....	
Butman Myron.....		Cross, Wright & Co m and d.....	Standish
Butman & Rust.....		Bennett J E m and d.....	Stanton
Chapin A B & Bro.....		Bock Wm m and d.....	

Burham & Wales s m..... Stanton
 Case G F s m.....
 Gardner D M s m.....
 Gilbert A m and d.....
 Stevens W H m and d.....
 Turner Bros & Co s m.....
 Wells & Patchin s m.....
 Withey & Buckaloo m and d.....
 Wood & Gilbert m and d.....
 Francisco & Marcy m and d..... Stanwood
 Stephens, Mellen & Tackles m and d..... Stephens P O
 Stronach Lumber Co m and d..... Stronach
 Johnson, Packard & Austin m and d..... Sturgis
 Wallace Z H & J S sash doors etc.....
 Harris Myron m and d..... Talmadge
 Cameron J C & Co m and d..... Tawas City
 Laidlaw James m and d.....
 Schram E L s m.....
 Aldrich J A m and d..... Tekonska
 Mc Cann Thos m and d..... Three Lakes
 Brownell & Dexter m and d..... Three Rivers
 Crossett & Pugh m and d.....
 Jackson Geo A & Co m and d.....
 Wilcox, Arnold & Co m and d..... Three Rivers
 Stone & Shirts m and d..... Trent P O
 Whitney Bros m and d.....
 Barton D m and d..... Tryon
 Patterson Jas m and d.....
 Stone A T m and d.....
 Tucker John B m and d..... Union City
 North T & J E m and d..... Vassat
 Martin H B m and d..... Vermontville
 Squier M L m and d.....
 Perry E m and d..... Vernon Isabella Co
 Bell & Starkey m and d..... Vernon Shiawassee Co
 Brand J C staves.....
 Sayers Bros m and d.....
 Martin, Mc Allister & Lawton m and d..... Verona
 Puddock & Ballantine m and d.....

Heartt Wm A m and d..... Wahjameja
 Goodrich Enos m and d..... Watertown
 Sutherland J m and d..... Waterleit
 Curtis & Walker m and d..... Wayne
 Arnold & Catlin p m..... Wenona
 Litchfield E C m and d (New York City).....
 Sage H W & Co m and d (New York City).....
 Hetfield & Fluter m and d..... Wheeler
 Peck & Beckenridge m and d.....
 Dawson Geo m and d..... Sault de St. Maria P O
 Norris & Perry m and d.....
 Seymour Henry W m and d.....
 Alley J & Co m and d..... Whitehall
 Bowen A B & Co m and d.....
 Cone & Green m and d.....
 Cook John P & Son m and d.....
 Cook Leitch & Co m and d.....
 Dalton & Bro m and d.....
 Farnum H T m and d.....
 Franklin G W m and d.....
 Heald Avery & Co m and d.....
 Hedges & Green m and d.....
 Johnson & Hageman s m.....
 Staples & Covell m and d.....
 Weston Bros m and d.....
 Luscomb & Pierce m and d (Milwaukee). White River
 Campbell & Co m and d..... White Rock
 Haviland J B & Co m and d..... Whitewater
 Schofield & Rickerd m and d.....
 Wixom & Sibley m and d..... Wixom
 White B m and d..... Woodbridge
 Taylor & McMullen m and d..... Wood Lake
 Shafter David G m and d..... Worth P O
 Fullmore & Scovill m and d..... Ypsilant
 Parsons Bros d.....
 Burt W R & Co m and d..... Zilwaukee
 Bliss A T & Bros m and d.....
 New York & Michigan Lumber Co.....
 Rust Eaton & Co m and d.....

CHICAGO.

Adams & Lord, d 368 Lumber street..... Chicago
 Allen & Bartlett d Laffin s of West 22d.....
 Avery Murphy & Co d s w cor Fisk.....
 Avery Thos M d Canal n w cor Fulton.....
 Barton & Jones d Lumber cor 12th.....
 Babcock W S d 400 Lumber.....
 Basse & Bruse d Elston a n e cor W Division.....
 Batcheller & Slaughter d Throop st cor 22d.....
 Bateson Alex d 347 Archer av.....
 Beidler J & Bro d Loomis cor 22d.....
 Benton & Fuller d 140 Beach.....
 Benton Geo C d Union s w cor 22d.....
 Bigelow Bros d Fisk n 22d.....
 Bishop & Lull d Throop n 22d.....
 Birdman Packard & Co d 94 Lumber st.....
 Bradley Shepard & Smith d 732 Clark st.....
 Burdick & Mead W 22d cor Blue Island av.....
 Bush & Hill m and d 242 S Water st.....
 Bushnell, Walworth & Reed m and d 362 Lumber st.....
 Calkins & Fisher d 215 Archer av.....
 Chapin & Foss d 214 S Canal st.....
 Charnley Bros & Co m and d 238 S Water st
 Chicago Lumber Co m and d 242 S Water st
 Crumb Bros d Division cor Elston av.....
 Chase & Pate d 511 Archer av.....
 Clark Saml D d 70 LaSalle st.....
 Combs Park & Co 22d st cor May.....
 Curtis & Skinner d 96 N Canal st.....
 Cutler Savage & Co m and d 236 S Water st
 Davis & Mason m and d 236 S Water st
 Davis & Murray d 451 Archer av.....
 Dean Bros d Fisk s of 22d.....
 Derickson & Sons d Laffin cor W 22d.....
 Dodge E J & Bro d 111 W 12th.....
 Driscoll P F d Halsted.....
 Egliston Hazelton & Co m and d 236 S Water.....
 Elder Fred d North Branch cor Division.....
 Eldred E & Co d Polk s e cor Beach.....
 Elkins & Cook d 381 Lumber.....
 Esau J Beach and Canal.....
 Faur d 22d s e cor Morgan.....

Ferry & Bro m and d w end 18th st bridge Chicago
 Fisher C C d 514 Lumber.....
 Foster Thos d 15 W 22d.....
 Fisher John & Sons d Robert w end of Huron.....
 Ford River Lumber Co m and d office 242 S Water yard W Throop s of 22d.....
 Fox & Howard d Ashland av cor Hickory.....
 Franz L & Son d 24th n e cor Butler.....
 Garden City Mfg Co d 22d cor Morgan.....
 Gardiner John D & Co m and d 520 Lumber.....
 Gifford Ruddock & Co m and d room 7, 242 S Water.....
 Goss & Phillips Mfg Co m and d Clark s w cor 12th.....
 Goldie d Eighteenth s e cor Canal.....
 Goodman J B & Co d Room 1 261 Randolph
 Goodman W d 250 S Water.....
 Goodrich W H d 84 Market.....
 Gray A R & Co m and d 22d cor Throop.....
 Graves D F d Throop n 22d.....
 Gunderson Senit T m and d 238 S Water.....
 Grusendorf & Mueller d foot of Lessing.....
 Hannah Lay & Co d 76 and 78 Lumber.....
 Hannah Lyman & Co d 89 Main.....
 Hartman & Graham d 238 S Water.....
 Harvey T W d Morgan cor 22d.....
 Hatch Holbrook & Co d 265 Archer av.....
 Hempstead & Beebe d 14 Chicago av.....
 Higbee Chas E d 242 S Water.....
 Hillard Churchill & Co d Cologne cor Joseph
 Hipple & Lestmann d 61 Hawthorne av.....
 Hoyt Balcom & King m and d (Oconto Wis) 246 S Water.....
 Houghteling W D & Co m and d 250 S Water.....
 Holmes & Co d 83 Grove.....
 Holden H N d Markets s e cor Jackson.....
 Horn W H d 234 S Water.....
 Hubbard & Wood d 236 S Water.....
 Hutt & Johnson d E Grove N 20th.....
 Irish Buelien & Co d 234 S Water.....
 Jones D H & Co m and d Room 16, 242 S Water.....

Jenkins & Murphy d 22d cor Laflin.....Chicago	Shoemaker & Howell d Throop N 22d.....Chicago
Johnson A B d 148 Kingsbury.....	Soper Brainard & Co d Polk cor Beach.....
Kelley Wood & Co 22d s e cor Center av.....	South Branch Lumber Co d 22d cor Loomis
Ketchum Stephens & Co d 238 Sherman....	Starrett & Bro d W 12th s w cor Lumber...
Learned S J d Center av s of 22d.....	Stephens & Clarke Archer av cor Quarry....
Long J Henry d 904 S Halsted.....	Stevens Plowden d 924 S Halsted.....
Loomis & Davis d 394 Fifth av and Fisk...	Street & Chatfield d Rocket w end of Huron
Leveland R A & Co d Lumber cor of 22d....	Terry & Bro d w end 18th at bridge.....
Loveland & Spencer d 22d cor Lumber....	The B L Anderson Co m and d Fisk cor 22d
Lowell & Barker d foot of Fisk.....	The Kirby Carpenter Co m and d Loomis nr
LUDINGTON WELLS & VAN SCHAICK m and d	22d.....
offices 244 S Water, yards Loomis N 22d and	Thompson H & Co d Quarry bet Archer av
I C R R.....	and the river.....
McLaren d cor Franklin and S Water.....	Truesdell Gideon Room 6 242 S Water.....
McDonald & Roe d Taylor s w cor Sher-	Turner E H & J S d 84 and 86 Lumber.....
man.....	Waldo John d 120 N Canal.....
McMullen & Officer d Throop s w cor	Waldo Waters & Co d 7 N Canal.....
Lumber.....	Walkup & Neebes d 361 Lumber.....
Martin S K d 438 Lumber.....	Washburn Edgar d 195 18th.....
Mears Bates & Co m and d 82 Beach.....	Weed A & Co W Chicago av.....
Mears C & Co m and d 58 Kingsbury.....	Wilce Stephens & Co p m 22d and Throop
Mendon & Winter d Throop s of 22d....	White Swan & Co m and d 252 S Water....
Menominee River Lumber Co m and d office	Whitbeck H Company m and d 257 W 22d
200 S Water.....	head of Fisk.....
Merrill & Skeele d 345 Lumber.....	Whitcomb R S d 714 W Washington.....
Meyer C J L d 25 W Ohio.....	Wheelock Sylvester d foot of Fisk.....
Minard Ira & Co d Loomis N 22d.....	White Geo E d 122 N Sanzamon.....
Munro Robbins & Co d W 12th cor Lumber..	White Joseph d 126 N Union.....
Nelson Bros d Grove n w cor 22d.....	White Rowell & Co d 84 W Chicago av....
N Ludington Co m and d office 242 S Water	Wolf Kauf & Essroger d Sebor bet Canal and
Noble & Little d Canal n w cor Carroll av..	Beach.....
Norris Lumber Co d 165 W 22d.....	Woodruff W N & J F d Grove foot of 19th..
North Branch Lumber Co d 40 Front.....	
Palmer Fuller & Co d W 22d cor Union....	
Park & Soper d 775 S Canal.....	
Pearson, J N d 60 Lumber.....	
Perry Pearson & Co d S end Sherman N	
12th.....	
Peshtigo Co m and d N Water N pier.....	
Phillips & Browne m and d Room 2 283 S	
Water.....	
Pillsbury Bradley & Co d Main n e cor Co-	
logne.....	
Pond & Soper d W 22d cor Loomis.....	
Porter & Co m and d Room 1, 261 Randolph	
Queal Robt F & Co d Throop s of T22d....	
Richards Norris & Co d W 22d cor Laflin..	
Rietz Chas & Bro d 27 N Canal.....	
Roberts & Hull m and d 245 S Water.....	
Robinson Geo G & Co d Hawthorne av n of	
gas works.....	
Ryerson Martin & Co m and d Room 4 242	
South Water.....	
Ryan Young & Co m and d 236 S Water....	
Sawyer S W d 133 LaSalle.....	
Schulenburg & Boeckler m and d Main	
cor Cologne.....	
Spalding Jesse m and d 250 S Water.....	
Sheriffs John & Son d Beach cor Taylor....	

COMMISSION.

Barker Cyrus A 252 S Water.....
Bell Robt L Room 2, 252 S Water.....
Bickford R K & Co 240 S Water.....
Blanchard Borland & Co 242 S Water.....
Brown W Room 5, 242 S Water.....
Calkins W W Room 1, 238 S Water.....
Carter Artemas 240 S Water.....
Deming Chas & Co Room 3, 233 S Water....
Ewer & Aarhaus 238 S Water.....
Frazier Jas Room 16, 242 S Water.....
Goodenow & Hinds 234 S Water.....
Irish Bullen & Co 234 S Water.....
Long John 238 S Water.....
Loomis John & Co 2 Franklin.....
Marsh & Goodrich 252 S Water.....
Meglade W Room 2, 238 S Water.....
Mueller W Room 5, 242 S Water.....
Prettyman W B 236 S Water.....
Rice Ed B Room 4, 252 S Water.....
Ripley W 238 S Water.....
Schulenburg Albert 234 S Water.....
Simpson Ruddock & Co 238 S W.....
Southworth W L 234 S Water.....
Williams Thomas 238 S Water.....

IOWA.

Steerwalt W d.....Abbott	Goodsill & Bro d.....Bedford
Tarton & Co d.....Ackley	McConville H & Co.....
Rath John d.....	Henry Jas P d.....Belle Plaine
Beymyer G W d.....Afton	Lamb & Son m and d (Clinton Ia).....
Farnsworth D (hardwood saw mill).....Agency City	Wilson J D d, agent.....
Parkinson B d.....Ainsworth	Brown M R m and d.....Bellevue
Gilbert, Hedge & Co d (Burlington Ia).....Albia	Strasser & Schleck p m and d.....
Fatton U L d.....Abion	Parker & Upton (hardwood mill).....Bertram
Taylor & Bro d.....Alden	Wise J K d.....Blairstown
Johnson W W d.....Algona	St John Jas d.....Bloomfield
Futnam F L d.....	Entler & Meek p m.....Bonapart
Wilson John & Co d.....	Kerr, W B d (*gent).....
Chambers Bros & Co m and d (Muscatine	Carr Chas W d.....
Ia).....Allerton	Nowlin Bros d.....
Madigan M d.....Altona	Lloyd & Stickney d.....Brigh
Lamb C & Son m and d (Clinton Ia).....Ames	Memer, John d.....
Jones & Bradley (hardwood mill).....	Burdick A (hardwood mill).....Bristol
Markham M A d.....	Morris J W d.....Brook
Benton W S d.....Anamosa	Korcklin & Newcomb d.....Brooklyn
Blackburn John S (hardwood mill).....Arcola	Holmes T J & Son d.....
Bowers & Billmyer (hardwood mill).....Auburn	Small W E & Son d.....
Bryant & Sharp (hardwood mill).....Augusta	Cass H d.....Buffalo
Ainsworth & Waterman d.....Avoca	Schuh L & Co m m.....
Ledwick T d.....	Cook W E & Cs m and m and d.....Burlington

Berry W S & Co m and d.....	Burlington	Allen & Boss d.....	Dexter
Carson & Rand m and d.....		Mark J G d.....	
E D Rand & Co m and d.....		Elerich James d.....	Dowd's Station
Dickie J & J m and d.....		Dow & Graves d.....	Dowville
Duncan & Hosford m and d.....		Lockman & Elliott d.....	Drakesville
Gilbert, Hedge & Co d.....		Pelan & Randall m and d.....	Dubuque
Joy E & Co.....		Robison J M m and d.....	
Millard Frank & Co d.....		Weston Burch & Co m and d.....	
Nairn, Gillis & Co p m.....		Carr Austin & Co sash doors etc.....	Dubuque
Parsons F T & Co d.....		Clarke & Scott m and d.....	
Winter D & Co p m.....		Dubuque Lumber Co m and d.....	
Seeley & Shaw d (McGregor Ia).....	Calmar	Iowa Lumber Co m and d.....	
Anthony & McLoskey m and d.....	Camanche	Ingram Kennedy & Day m and d.....	
Graffon W H (hardwood mill).....	Cambridge	Knapp Stout & Co m and d.....	
Green J L d.....	Carroll	Langworthy S M d.....	
Hatch & Wingate d.....	Casey	Lumbert E R & Co d.....	
Whitmore E O & Co d.....		Lembeck H & Co sash doors etc.....	
Ford & Zeising d.....	Cedar Fall	Wheeler & Warner d.....	Dunlap
Lamb, Bing & Co d.....		Dyer Henry d.....	Dyersville
Green & Kewley d.....	Cedar Rapids	Krapf A d.....	
Lamb C & Son m and d (Clinton Ia).....		Twogood C d.....	
Dyer d.....	Center Point	Brown Doty & Co d.....	Eagle Grove
Boiles & Co d.....	Centerville	Puckitt Daniel d.....	
Gilbert, Hedge & Co d (Burlington).....	Chariton	Getchell & Son d (Des Moines).....	Earlham
Andrews & Harrison, sash, doors, etc.....	Charles City	Harper Geo d.....	Earlville
Grimmeis H, sash, doors, etc.....		McGavie E J & Bro d (Keokuk).....	Eddyville
Mitchell & Fletcher.....		Sage E T & Co d.....	Eldora
Parker & Gennels p m.....		Hall & Conger d.....	Eldora
Smith, Stephen d.....	Chelsea	Dimond & Winden m and d.....	Elgin
Archer Jas d.....	Cherokee	Sutter Lewis & Co d.....	
Hixon & Fisher d.....		Froarque Daniel m and d.....	Elk River
Hobart & Snyder d.....		Tomblin D M d.....	Emerson
Hull J M & Son d.....	Chillicothe	Pond E G (hardwood mill).....	Emmitsburg
Osgood & Kimball d.....	Clarinda	Wilson J J & Co d.....	
Rucktaschel Geo d.....	Clayton	Hedges J S & Co d.....	Fairfax
Schumaker A & Co.....		Philp J W d.....	
Woodford & Johnson d.....	Clear Lake	Doty N S d.....	Fairfield
Clinton Lumber Co m and d.....	Clinton	Rand E D & Co m and d (Burlington).....	
Curtis Broe & Co sash, doors etc.....		Whitmore Seth d.....	Farley
Joice & Smith sash, doors etc.....		Gabelman Fred d.....	Farmington
Lamb C & Son m and d.....		Lyman G F d.....	Fayette
Young W J & Co m and d.....		Duckworth Cook & Co m and d.....	Floris
Graves W H d.....	Colesburg	Blowers & Clark (hardwood mill).....	Forest City
White & Bedow.....		Shori N d.....	Ft. Atkinson
Baldwin & Maxwell d (Iowa Center).....	Colo	Brown H C d.....	Ft. Dodge
Hobbie & Bro d.....	Columbus Junction	Conway Owen d.....	
Hoyt & Burdick d.....	Conover	Keefer Plough & Co d.....	
Seely & Shaw McGregor Ia.....		Atlee Saml J & Co m and d.....	Fort Madison
Beymer A M & Co d.....	Corning	Gibbs E A d.....	
Johnson H L & Co.....		Kasten Chas D.....	
Waldon Allen d.....	Corydon	Inkman & Felix d.....	
Green Thos & Son d.....	Council Bluffs	Miller N B & Co.....	
Hammer Lewis d.....		Wilson John d.....	
Hoagland Geo T & Co d (Hannibal Mo)		Blaufuss F d.....	Franklin Center
Young & Co d.....		Baelton A m and d.....	Fulton
Fleming W J d.....	Cresco	Frank J m and d.....	
Rard E D & Co m and d (Burlington Ia).....	Creston	Slipper John & Bro m and d.....	
Rand E D & Co m and d (Burlington Ia).....	Cromwell	Woodford & Wells d.....	Garnavil
Easton J S d.....	Dallas Center	Rinehart & Horton d.....	Gilman
Cable G W & H d.....	Davenport	Marsh & Lambert d.....	Glen Roy
Davis L S m and d.....		Tistleson O d.....	
Kirk F, sash, doors, etc.....		Mills & Atkins d.....	Glenwood
Lindsay, Phelps & Co m and d.....		Hankins & Ruggles d.....	Glidden
McClelland, T W sash, doors, etc.....		Park C B & Co d.....	Grand Junction
Price, Hornby & Kehoe m and d.....		Clark S H d.....	Grand Mound
Benwick W m and d.....		Jansen C d.....	
Roberts & Rohrbach, sash doors etc.....		Barnum, Case & Co d.....	Green
Schrrocker & Mueller m and d.....		Craver & Steele d.....	Grinnel
Skinner W J d.....		Davis & Kelsey d.....	
Flemming W & J d (McGregor Ia).....	Decorah	Hobart Chas & Son d.....	
Atwood & Wolcott d.....	Delaware	Benson, P T d.....	Guthrie
Knowles J d.....		Floete Chas d.....	Guttenbergh
Chandler M d.....	Delmar	Goetz, Adam d.....	
Dupuis M d.....		Luck B H d.....	
Wheeler & Warner d.....	Dennison	Phelan & Zimmerman m and d.....	
Carver Young & Co d.....	Des Moines	Wikoff A H d.....	Hamburg
Collins & Shyrock d.....		Smith H J & A J d.....	Hampton
Getchell & Son d.....		Smith W P & Bro d.....	
Gilchrist J K & W H d.....		Lane & Hollister d.....	Honey Creek
Heath H R sash doors etc.....		Flusher A H hardwood mill.....	Horton
Sypher R W d.....		Eckhart Z d.....	Independence
Getchell & Son (Des Moines Ia).....	De Soto	Ingram, Kennedy & Day m and d	
Buckley John d.....	De Witt	(Dubuque Ia).....	
Butterfield Thos F & Co d.....		Kinyon S C d.....	
Kettering & English p m.....		Newman S d.....	

Stout Z & Co d.....	Independence	Martin S & Co d.....	Mona
Winnegar & Manny d.....		Burdick E E d.....	Monticello
Zinn E d.....		Smith Thos P & Bro d.....	Montour
Chase & Hube d.....	Ionia	Ochiltree H M & Sons d.....	Morning Sun
Baldwin & Maxwell d.....	Iowa Center	Norwood D d.....	Moulton
Musser R & C d.....	Iowa City	Grove James d.....	Mount Pleasant
Porter J W d.....		Ketchum L & Bro d.....	
Rittermeyer F X d.....		Ludham Bros p m.....	
Carlton J H & Bro d.....	Iowa Falls	Rand & Kaster d.....	
Hogg, Zeno d.....		Schreiner T d.....	
Richardson J C hardwood mill.....		Boyd D L d.....	Mount Vernon
Yerger A d.....	Jefferson	McClellan & Kirkpatrick m and d.....	
Moore & Hoyt m and d (Dubuque Lumb Co).....	Jessup	Wick J E d.....	Murray Station
Taylor Thos d.....		Chambers Bros & Co m and d.....	Muscatine
Hayward d.....	Kellogg	Eckle & Patton d.....	
Andrews J H d.....	Keokuk	Garlock John S d.....	
Hosmer & Baldwin m and d.....		Hershey & Irvine m and d.....	
Mc Gavic & Co d.....		Hoch E d.....	
Magoun & Co d.....		Kirk W T p m.....	
Scroggs J W d.....		Musser P M & Co m and d.....	
Tabor & Co m and d.....		Stine S G d.....	
Wells, Felt & Spaulding m and d.....		Union Lumbering Co m and d.....	
Marshall Joshua m and d.....	Kirkville	Turner & Bellany d.....	Nashua
Butterfield & Co d.....	Knoxville	Dillin C D d.....	Neola
Donley & Garrison d.....	Lake Mills	Lockridge W d.....	Nevada
Wadsworth Smith & Co hardwood mill.....	Lamville	Gordon Burt & Weston d.....	Newell
Miller Sam'l d.....	Lansing	Nicholson & Fowler d.....	
Albert E T & Son d.....		Swazey L T d.....	
Hemingway Barclay & Co d.....		McLaren & Meyer d.....	New Hampton
Johnston S B d.....		Williams E d.....	New Hartford
Merrill & Smith m and d.....	La Porte City	Kalbach Isaac & Son d (Oskaloosa).....	New Sharon
Klingaman & Felt d.....	Lawler	Atwater & Hoskins d.....	Newton
Fleming & Bro d (McGregor Ia).....	Le Claire	Curtis & Manning d.....	
Zepley & Van Sant m and d.....	Le Mars	Hanson A P d.....	
Fairchild R C d.....	Le Mars	Eckert & Williams d.....	Northwood
Naples & Alline d.....		Brown T H d.....	Norway
Staples Isaac m and d (Stillwater Minn).....		Harper W L d.....	
Beymer A S d.....	Lenox	McGlathery T K d.....	Oelwein
Cole Warren Jr d.....	Leon	Sylvester F d.....	Ogden Station
Fry Jacob hardwood mill.....	Libertyville	Whelock & Adams d.....	
Pancoast Joseph d.....		Elwell John d.....	Onawa City
Auracher G d.....	Lisbon	Freeland & Cleghorn d.....	
Smith P E d.....	Liscomb	Reder Theo hardwood mill.....	
Schofield & Son hardwood mill.....	Little Sioux	Spurr C E d.....	Onslow
Goreham & Pelton d.....	Lost Nation	Chute & Cotton d.....	Osage
Peterson Aug. d.....	Lowden	George & Lizotte p m.....	
Barnum J H d.....	Lyons	Harding G F hardwood mill.....	
Buffum G A d.....		Huntington & Griswold.....	
Dishrow M A d and sash doors etc.....		Gilbert Hedge & Co d (Burlington).....	Osceola
Joyce & Smith m and d.....		Rand E D & Co m and d (Burlington).....	Oskaloosa
Langford C E d.....		Kalbach Isaac & Son d.....	Oskaloosa
Magill Chas H d.....		Leighton C d.....	
Stockwell Ira m and d.....		Snyder & Duke p m.....	
Daubenberger & Strauer m and d.....	McGregor	Wray W H d.....	
Fleming W & J m and d.....		Flemming W & J m and d (McGregor Ia).....	Ossian
Seeley & Phelps m and d.....	Malcom	Kiser J M d.....	Ottumwa
Buttles & Vernon d.....	Malvern	Millard J J & Co d.....	
Moninger Ringland & Summers d.....	Manchester	Thornburg d.....	Oxford
Place A D d.....		Wilson J W d.....	Oxford
Buckley G R d.....	Manchester	Kettinger A & Co hardwood mill.....	Palo
Dyer W d.....		Clarnock C d.....	Parkersburg
Manchester Manufacturing Co.....	Maquoketa	McGavie E J & Bro d.....	Pella
Bradley Geo T d.....		Newport B F d.....	Perry
Chalmer Stephen sash doors etc.....		Dean E J d.....	Plainfield
Joiner Bros & Co d.....	Marble Rock	Mores W H d.....	
Shepardson J B d.....	Marengo	Page L A d.....	Plymouth
Ketchum & Bro d.....	Marion	Mott J S.....	Postville
Morrison A J d.....	Marion	Fish & Hammond m and d.....	Prairie City
Alexander J S d.....	Marshalltown	McGavie E J & Bro d.....	
Wood Geo F d.....		Steinbeck Silas d.....	Quarry
Cunningham D W d.....	Marysville	Bryson & Son d.....	Red Oak Junction
Stoddart H d.....	Mason City	Clark J & Co d.....	
Woodworth W C & Son d.....		Rogers & Son d.....	
Ush Fostrier & Brewer d.....	Marysville	Allen W H & E T d.....	Ridgeway
Lyman W H d (agent).....	Mason City	Myers & Peck d.....	
Sprague M A d.....		Emerson & Fay d.....	Rockford
Wilson & Herrick d.....	Masonville	Comstock D r d.....	Russell
Griffin B d.....	Mechanicsville	Long E & H M m and d.....	Sabua
Armentrout & Co d.....	Mediapolis	Risley & Day m and d.....	
King W W d.....	Melrose	Shaw D & Co m and d (Ean Claire Wis).....	
Funk W O d.....	Millville	Rhames John N d.....	St Augar
Merrill L & Bros d.....	Minburn	Howe W B d.....	Saylorville
Gill M & Son d.....	Mitchell	Reeves Bros d.....	Seuly Station
Brown & Gregory d.....	Mitchellville	Caughran J D d.....	Shelby
Kimball & Mitchell d.....		Bradley S S d.....	Shelton

Lane H C d.....	Sheldon
Mykoff Jas d.....	Shell Rock
Fairfield & Phillips d.....	Shenandoah
Bryson & Son d.....	Sibley
Riley & Grant d.....	Sibley
Schell Levi d.....	Sibley
Schuck D M d.....	Sigourney
Brown & Yerger d.....	Sigourney
Hedges & Spaulding d.....	Sioux City
Rice H B d.....	Sioux City
Sanborn & Follett hard wood mill.....	Solon
Beermaker A d.....	Stanwood
Anthony N B d.....	State Center
Munson T S & Co d.....	State Center
Tuthill J W d.....	St amboat Rock
Urner D W d.....	Storm Lake
Green & F d.....	Storm Lake
Stutz Theo d.....	Stuart
Stuart C d.....	Tama City
Dennis & Averill d.....	Tama City
Hall B A d.....	Tipton
Lamb C & Son m and d (Clinton Ia).....	Tipton
Culbertson John d.....	Traer
Johnson Bros d.....	Traer
McCormick Bros d.....	Union
Smith John d.....	Union
Hauser & Son d.....	Urbana
Mosman Alex d.....	Vail Station
De Wolf James d.....	Vail Station
Taylor J C & Bro m and d.....	Van Meter

Cadle C F & W L d.....	Victor
Chadbourne A S d.....	Vinton
Stickney & Bros d.....	Young & Son hard wood mill.....
Young & Son hard wood mill.....	Wainut Station
Avery Spangler & Co d.....	Washington
Denry J M & Co d.....	Washington
McCoughey & Co p m.....	Washington
Sheridan & Hardestz d.....	Waterloo
Wilson & Wallace d.....	Waterloo
Allee & Lindley d.....	Waterloo
Ankeny & Lusch d.....	Webster City
Beek Newman & Bro.....	Webster City
Cobb & Jones d.....	Webster City
Cutler W H d.....	West Branch
Johnson H M d.....	West Branch
Moore M H & Co d.....	West Cedar Rapids
Bodeker & Maas d.....	West Liberty
Fairfield C d.....	West Union
Hunt & Holt d.....	West Union
Ewing J & Son d.....	Wheatland
Worthington W S d.....	Winthrop
Hoover B d.....	Worthington
Gordon A d.....	Yankee Settlement
Deemer J A d.....	
Woodward Chas d.....	
Woods Hall & Co d.....	
Seidell & Co d.....	
Bush E H d.....	
Paft D C stove factory.....	

MINNESOTA.

Getchell, C. S. & Co., m and d.....	Afton
Olds & Lord, m and d.....	Afton
Pray, R. N., p. m.....	Alexandria
Sergeant, Wm. P., d.....	Alexandria
Hicks, Wm. E., m and d.....	Anoka
St. Paul Lumber Co., m and d (see St. Paul). Anoka Washburn, W. D. & Co., m and d (see Minneapolis).....	Anoka
Mower, Martin.....	Arcola
Saulter, E. A. D.....	Atwater
Richards, W. d.....	Austin
Gordon & Cooley, m and d.....	Barnum
Essler & Bro., m and d.....	Beaver Falls
Weed & Colson, s. m.....	Belle Plaine
Ellsworth, D. d.....	Benson
Meldal & Sunde, d.....	Benson
Vogel, August, m and d.....	Bloomington
Brainard & Whitton, d.....	Bloomington
Brainard Lumb. & M'fg Co. m and d.....	Brownsdale
Brown, H. A., d.....	Brownsdale
Paul, John, m and d (La Crosse, Wis).....	Brownsdale
Gilbert, O. S. d.....	Brownsville
Paul, John, m and d (La Crosse, Wis).....	Brownsville
Funk, John, d.....	Carver City
Schrimpf, A. D.....	Central Point
Grannis, S. S., m and d.....	Champlin
Brown & Brockway, m and d.....	Chaska
Kenny, Chas., m and d.....	Chaska
Nathan, Geo., Stave M'fg.....	Chisago City
Laird, Norton & Co., m and d (Winona). Claremount Morrison, H. B.....	Clear Water
Talbot & Smith, m and d.....	Cleveland
Warde Bros. & Runions.....	Cokato
Pendergast & Chisley, m and d.....	Collingwood
Lucas, Adam, m and d.....	Cordova
Weizell, F.....	Dayton
Perkins, Bro. & Co. m and d.....	Dedham
Parlow, H. C.....	Delano
Frazie, R. L., m and d.....	Detroit Lake
Gill, John, d.....	Dodge Center
Magee, D. T., d.....	Dover Center
Howard, J. D., m and d.....	Duluth
Munger & Gray, m and d.....	Duluth
Patterson & McQuade, p. m.....	Dundas
Shaw & Ingalls.....	Dundas
Weiland H. & Bro., m and d.....	Dundas
Hutchins, John, m and d.....	Elk River
Houlton & Nickerson, m and d.....	Elk River
Nills, E. P., m and d.....	Elysian
Long, G., m and d.....	Elysian
Dunn, E., d.....	Eyota

Jackson & Russell, d.....	Eyota
Robson, John, m and d (Winona).....	Faribault
Smith, R. R., d.....	Faribault
Sunmer, Jesse, d.....	Faribault
Turner, J. A., m and d.....	Fergus Falls
Walker, H., m and d.....	Fergus Falls
Goodsell & Bro., m and d.....	Fergus Falls
Page & Scott, m and d.....	Fergus Falls
Evas, E. E. & Co., m and d (St. Paul). Fish Lake Baldwin, D. E., m and d.....	Forestville
Henry, F., m and d.....	Glencoe
Mirns Bros.....	Glyndon
Tenney, L. H. & Co. d.....	Grand Meadow
Pierce, L. E. d.....	Hastings
Dudley, John.....	Hastings
Hersey, Bean & Doe, m and d (Stillwater).....	Henderson
Herman, J., m and d.....	Hokah
Garrett, J. M.....	Howard Lake
Johnson, Thomson & Bluck, saw and stave mill.....	Janesville
Smith & Gasper, d.....	Janesville
Horner, J. W. & Co., stave mill.....	Kasson
Wadleigh & Wirks, d.....	Kingston
Carville & Norgren, m and d.....	Kingston
Hall & Thompson, m and d.....	Lake City
Grannis, S. S. m and d.....	Lake City
Harding, J. p. m.....	Lake Crystal
Hersey, Bean & Doe, m and d (Stillwater).....	Lake Crystal
Hulett & Norton, p. m.....	Lanesboro
Humphrey, H. d.....	Lanesboro
Russell, L. G. d.....	Lansing
Coleman, C. L. m and d (La Crosse, Wis).....	Lansing
Paul, John, m and d (La Crosse, Wis).....	Le Roy
Crocker Bros. & Lamereaux, m and d (Minneapolis).....	Le Sueur
Mc Call, M. d.....	Le Sueur
Fiffeld, D. S. & Son.....	Litchfield
Davis, L. B.....	Litchfield
Paul & Stone, m and d.....	Little Falls
Butler, Chauncey.....	Lyle
Leavitt, S. W.....	Lyle
Hill, E. G. & Bro. m and d.....	Madelia
Sherman, W. L. d.....	Madelia
Dean, J. & Co. m and d (Minneapolis).....	Manchester
Faribault & Carney m and d.....	Manchester
Beebe, R. W. d.....	Mankato
Mc Mahill, Geo. d.....	Mankato
Tisdale Bros. d.....	Mantorville
Severance, C. E.....	Maple Plain
Marsh & Kennedy m and d.....	Maple Plain
Bergman, A. m and d.....	Marine Mills
Sabin & Judd m and d.....	Marine Mills

Walker, Judd & Veazie m and d.....	Marine Mills	Lindsay G W m and d.....	St Francis
Langdon, N. B.....	Marshall	Woodbury D m and d.....	
Butler, L & Co. m and d.....	Minneapolis	Valbrecht W & Bro m and d.....	St. Michael
Chase, J.....		St Paul Lumber Co m and d.....	St Paul
Barnham & Lovejoy m and d.....		Taylor H J & Co m and d.....	
Rollins, John.....		Anoka Lumber Co m and d.....	
Ross, J. R. sash, doors &c.....		Grant, Mc Caine & Co m and d.....	
Gaines, Cook & Co m and d.....		Keller John M m and d.....	St. Paul
Wheaton, Reynolds & Co., sash, doors &c		Evans E E & Co m and d.....	
Ankeny, W. P & Bro. m and d.....		Munch, Gustave m and d.....	
Bedford, Boyce & Baker m and d.....		Prince John L m and d.....	
Clark, F. P. m and d.....		De Cou & Co sash, doors etc.....	
Copeland, Jesse & Son, p. m.....		Metter & Heritage m and d.....	St Peter
Crocker Bros. & Lamereaux m and d..		Snyder, Damsen & Co m and d.....	
Bray, Wilder, & Co. d.....		Mc Clure T C m and d.....	Sauk Center
Day, L. & Sons m and d.....		Boulter & Burget m and d.....	Sauk Rapids
Dean, Joseph & Co. m and d.....		Wilder J A d.....	Shakopee
Fastman, Bovey & Co. m and d.....		Mirns T m and d.....	Silver Lake
Eldred, W. H. s. m.....		Harriman S m and d.....	Somerset
Judd, W. S. m and d.....		Coleman C L m and d (La Crosse Wis) Spring Valley	
Langdon, R. B. & Co. p. m.....		Paul John m and d (La Crosse Wis).....	
Morrison Bros. m and d.....		Bronson & Fulson m and d.....	Stillwater
Pettit, Robinson & Co. m and d.....		Hersey, Bean & Brown m and d.....	
Russell & Co. p. m.....		Staples Isaac m and d.....	
Smith, Parker & Co. p. m.....		Seymour, Sabine & Co m and d.....	
Union Planing Mill Co. p. m.....		St Croix Lumber Co m and d.....	
Wa-hburn, W. D. & Co. m and d.....		Proctor J S (Secy. St Croix B Co).....	
Ingalls Bros. d.....	Minneska	Matthews S logger.....	
Ingram, Kennedy & Co. m and d (Eau		Nelson C N logger.....	
Claire, Wis.).....		Tozer David logger.....	
Hitter, F. m and d.....	Monticello	Chalmers & McMillan.....	
Douglass, James d.....	Moorhead	Durand E W.....	
Avery, Jas. T.....	Morris	Gaslin David.....	
Adams, C. D., stave m'fg.....	Morristown	Mc Kusick, Andersen & Co m and d....	
Herchey & Son m and d.....		Mower Martin.....	
Norton R M m and d.....		Schulenberg, Boeckler & Co m and d....	
Osterhant Jas m and d.....		Ellison, Smith & Co m and d.....	Taylor Falls
Keen & Whitcomb.....	Nicollet	Folsom W H C.....	
Ames, Jesse & Son m and d.....	Northfield	Fox P.....	
Dwinell E C sash, doors, etc.....		Mc Court J H.....	
Mann Chas W.....		O'Brien John.....	
Stewart S P m and d.....		Ingraham, Kennedy & Gill m and d (Eau	
Whittle & Curlaw m and d.....		Claire, Wis).....	Wabasha
Miller A M m and d.....	N P Junction	Smith Warren d.....	Waseca
Payne J M & Co m and d.....		Elliot d.....	
Munger Grey m and d.....	Oneota	Durr Peter.....	Waverly
Phelps Bros m and d.....	Otsego	Halbrecht.....	
Frazie R L m and d.....	Otter Tail City	Cole & Laird d.....	Wells
Backus Bros.....	Owatonna	Coleman C L m and d (La Crosse Wis).....	Whalan
Crocker Bros & Lamereaux (Minneapolis).		Hays W W.....	Willmar
Murray A G d.....		Paulson John.....	
Pine City Lumber Co m and d (St. Paul).....	Pine City	Robbins A B.....	
Fife W W d.....	Preston	Gilliland Thos d.....	Windom
Cogel & Betcher m and d.....	Red Wing	Hubbs Chas L d.....	
Daniels & Stimmson.....		Coleman C A d.....	Winnebago City
Red Wing Mill Co m and d.....		Balcom J & H C.....	Winona
Stout Jas H m and d.....	Reed's Landing	Gage A W & Bro.....	
Buttles & Herrick p m.....	Rochester	Horton & Hamilton d.....	
Dodge W H d.....		Knight, Bennett & Co m and d.....	
Gillman N F p m.....		Laird, Norton & Co m and d sash, doors &c	
Laird, Norton & Co m and d (Winona)...		Langdon A sash, doors etc.....	
Robson John m and d (Winona).....		Robson John m and d.....	
Martin S A m and d.....	Rush City	Rose O sash, doors etc.....	
Relley, Short & Co m and d.....		Tucker O.....	
Taylor & Co m and d.....		Youmans Bro & Hodgins m and d.....	
Foss O p m.....	Rushford	Crocker Bros & Lamereaux m and d	
Parker G B (Agent) d.....		(Minneapolis).....	Worthington
Bridgeman, Coleman m and d.....	St Cloud	Sater I N d.....	
Clark N P m and d.....		Cram Jas sash, doors etc.....	Zumbrota
Cluck & Mc Clure m and d.....		Hubbard, Wells & Co m and d.....	
Dam F H sash, doors etc.....			

MISSOURI.

Hill & Co.....	Alexandria	Phelegan Willis & Balding d.....	Belton
Neure F & Son.....		Scott Geo W & Co d.....	
Summers & Scoonover.....		Haines Chas saw mill.....	Berger
Fieler Robt & Bro m and d.....	Altenburg	Hoehn Chas saw mill.....	
Schmidt Jacob m and d.....		Nelson & Smith saw mill.....	Bethany
Welnhold Marton.....		Graham Jas saw mill.....	Big Creek
Wyckoff & McFarland d.....	Appleton City	Harlow Greenberry saw mill.....	
Thompson J. C. Jr d.....	Arrow Rock	Bedford Bogarnus & Co p m and sash	
Garth H C d.....	Anulville	factory.....	Bloomfield
Sparks W W d.....		O'Neil Jas saw mill.....	Bolivar
Waterman J C & Co d (Maryville Mo).....	Barnard	Wilkinson Hiram saw mill.....	Boonsborough

Jones B F d.....	Boonville	Miller W H & Co p m.....	Hannibal
Roberts & Lee d.....		Pinger Chas & Co d (St. Joseph Mo).....	
Thro J E d.....		Price J B d.....	
Elliott Lumber Co saw mill and d.....	Bourbon	Rowe & Tolle.....	
Bales T T d.....	Breckenridge	Skinner & Co sash doors etc.....	
Plumb & Co d.....		Ure & Co.....	
Bethelm & Kerr d.....	Brookfield	Farmer & Jones d (Pleasant Hill Mo).....	Harrisonville
Ryner J M d.....		Rice John d.....	Hemetite
Matlack Geo & Co d (St Louis Mo).....	Brownsville	Lang Geo d.....	Herman
Moore Jas & Co d.....		Hubbard E L d.....	Holden
Eno E B d.....	Brunswick	McMillen Jas d.....	
Perry J O d.....		Mills T M d.....	
Wilson Peter saw mill.....	Buffalo	Starkey & Christian d.....	
Rogers Francis d.....	Bunceton	Cutter Morgan & Co saw mill.....	Holt Station
Pitcher Adams & Cathron saw mill.....	Burdett	Evans & Brierton saw mills.....	Hopewell
Warner & Son d.....	Butler	Waterman Goodsell & Bro d.....	Hopkins
Pigg D H d.....	Calhoun	Wiles S S d.....	Houstonia
James & Sappington saw mill.....	California	Stratton M saw mill.....	Humasville
Nischwitz C F d.....		Hurd C d.....	Hunnewell
Ross Geo d.....		Brookings Jas R d.....	Huntsville
Matis John H d.....	Callao	Smothers & Taylor d.....	
Maupin & Elliott d.....	Camden Point	Gates & Anderson d.....	Independence
Steiger Bros d.....	Cameron	Shortridge John (agent).....	
Burns & Mabon p m.....	Canton	May Edwin and d.....	Ironton
Ellis Wm d.....		Lilly & Smith d.....	Janesport
Hampton John P d.....		Bush & Becker d.....	Jefferson City
Stapies Nelson p m.....		Eaton Henry d.....	
Morris James (agent) d.....	Cape Girardeau	Heinrich Agnes & Son d.....	
Crouch W S d.....	Carrolton	Wallendorf M saw mill.....	
McDonald W d.....		Reding John S d.....	Joplin
Beebe H F d.....	Carthage	An'erson James d.....	Kansas City
Fisk & Haines saw mill.....		Chester Melville & Co d.....	
McCarthy & Gilbert d.....		Crawford & Crouse saw mill.....	
Moore Bros d.....		Deardorf L d.....	
Fisher Joseph, jr d.....	Cedar City	Dubock & Co d (Hannibal Mo).....	
Street & Bro d.....	Center Town	Leach & Hall d.....	
Robinson James & Co saw mill.....	Chamois	Lovejoy G W p m.....	
Frank J S d.....	Chillicothe	Ludwig Thos J p m.....	
Herne, Harriman & Waples d.....		Merrill J W d.....	
Williams R B & Co d.....		Temple Jas d.....	Kidder
Tooley & Jacobs d.....	Clarence	Hammond C G d.....	Kirkville
Hughes B D.....	Clarkville	Sharp L R d.....	
Carpenter W H d.....	Clinton	Perkins G H d.....	Knob Nestor
McAllister & Bowling d.....	Columbia	Cathers D B d.....	La Cledc
Lohofner & Tegeler d.....	Concordia	Quinsberry & Farmer d.....	La Grange
Morton J W saw mill.....	Corsicana	Irving & Co d.....	La Platte
Henderson Wm saw mill.....	Cuba	Wilson J S d (agent).....	Lathrop
Lacy Chas C d.....		Montgomery & Brock d.....	Lawson
Bradley W J saw mill.....	Dalton	Vauston & Loop saw mill.....	Laynesville
De Lassus Placide d.....	De Lassus	Lingsviller John d.....	Lebar o
Vineyard Jas d.....		Smith & Apping saw mill.....	
Angle, Clarke & Co saw mill.....	Des Arc	Adams Isaac W & Co d.....	Lee's Summit
Burroughs R & Co d.....	De Soto	Collins & Anderson d.....	
Gillett & Gowen saw mill.....	De Witt	Ballard Patrick d.....	Lexington
Bowen John R, jr saw mill.....	Edina	Hale Robert & Bro d.....	
Sheppard Elijah saw mill.....	Egypt Mills	Marshall Ben d.....	
Tandy, Stearns & Dorsay, saw mill.....	Ellenorah	Waples A C d.....	Liberty
Elston E saw mill.....	Elston Station	De Forest & Co saw mill.....	Licking
Lang & Bro saw mill.....	Farmington	Jones & Granger saw mill.....	Lincoln
Douglash & Bro p m.....	Fredericktown	Carson Geo L d.....	Louisiana
Kennedy & Thompson p m.....		Dreyfus Hill & Co d.....	
Farmer & Jones d (Pleasant Hill Mo).....	Freeman	Eau Claire Lumber Co m and d (Eau Claire Wis).....	
Stanchfield L S saw mill.....	Gads Hill	Edison Nichols & Co (Clarksville).....	
Lester Eugene W saw mill.....	Gayose	Freeman & Co m and d.....	
Birch T E, jr d.....	Glasgow	Soward & Dyer p m.....	
Lewis C H d.....		Farrar & Bourk d.....	Macon City
Harrold John S saw mill.....	Glaze City	Graham F M & Co saw mill.....	Marquand
Simmons H D.....	Gower	Linn & Farrar saw mill.....	
Hope Geo D d.....	Greenfield	Whitener & Son saw mill.....	
Hope Geo D d.....	Greenwood	Wilkinson W J Jr saw mill.....	
Hines M O d.....	Hamilton	Coleman & Stagner d.....	Marshall
Reddie Geo d.....		Page C G, d.....	
Allen & Knowll.....	Hannibal	Muster J S d.....	Martinsburg
Coulon J.....		Tapscott A W d.....	
Cruikshanks John Jr d.....		Anderson & Bro d.....	Maryville
Davis Boeckee & Garth.....		Waterman J C & Co d (Barnard).....	
Dorman Uriah.....		Goodale L N d.....	Meadville
Dubach D & Co.....		Marks Abe d.....	
Dulaney & McVeigh.....		Woodard & Co saw mill.....	Mendota
Hannibal Union Works sash doors etc.....		Coatsworth & Co d.....	Mexico
Hearne Herriman & Co.....		Meyer John d (St Louis).....	
Hibbert John V sash doors etc.....		Wright Josiah d.....	
Hixon G C & Co.....		Guthreys & Ilaynie d.....	Miami
Northwestern Lumber Co m and d (Eau Claire Wis).....		Hill M C saw mill.....	

Stanley & Stickler d.....	Milan	Schuelle & Querl, n. Main st d.....	St. Louis
Carter C C d.....	Missouri City	Phillibert & Johannung, planing mill, 1502	
Firth Wm d.....	Moberly	to 1518 Market st.....	
Hassett Bros d.....		Theo. Bloess, Carondelet Ave. cor. Barton	
Petering E H d.....		d.....	
Porter W W & J B d.....		August Leisse, 609 Chouteau Ave. bet. 6th	
Mathew John L d.....	Monroe City	and 7th sts.....	
Davis W A & B saw mill.....	Monticello	Boeckeler A & Co m and d.....	
Kerr Wm d.....	Montrose	Boeckenkamp & Surkamp, cor. 9th and	
Morgan P A saw mill.....	Morgan's Mills	Monroe sts. d.....	
Bacon F M d.....	Mound City	Lobsinger, Meegan & Co., Carondelet m	
Barber & Herms saw mill.....	Neosho	and d.....	
Neosho Planing Mill Co.....		Clear Water Lumber Co m and d.....	
Robinson James & Co sash, doors etc.....		Fleitz & Ganahl, 1320 Jackson st. d.....	
Carey saw mill.....	Nevada City	Methudy & Meyer, commission, 22 s.	
Cleland J W d.....	Nevada City	Main st.....	
Southwick & Goodall d.....	New Cambria	Berthold & Jennings, commission, 28 s.	
Fitzhugh J S d.....	New Florence	Main st.....	
Forrest R W d.....	Norborne	Beldemeier H W & Co Eastern av d.....	
Johns T B d.....	North Springfield	Williams & Alford, commission, 100 s.	
Kennedy & Druhe d.....		Main st.....	
Raithel J G d.....		Clement H S commission.....	
Berry & Bros.....	Omaha	Cole & Glass p m.....	
Petty J J saw mill.....		Cronkrite A H (Wisconsin River Lumber	
Potter B T d.....	Oregon	Co Stevens Point Wis) St James Hotel...	
Carter M S saw mill.....	Osage City	Davitt John W d.....	
Corny & Vader saw mill.....		Druhe W d.....	
Hollister & Co saw mill.....		Dryden & Reid d.....	
Maxwell J B d and saw mill.....	Osage P O	Hill Lemmon & Co m and d.....	
Hitt B M d.....	Osborn	Hocker & Hengelsberg d.....	
Armick J F d.....	Otterville	Holmes J A & Co d.....	
Potter & Wharton saw mill.....		Hymers Ed H d.....	
Haycox P S saw mill.....	Overton	Luthy Jas d.....	
Williams H d.....	Pacific	McIvain Robt d.....	
Kiser Wm B saw mill.....	Palmyra	Matlack Geo d.....	
Boss & Kennedy saw mill.....	Paradise	Meyer John, Cass av d.....	
Bower G M d.....	Paris	Mincke G F d.....	
Wilson Wesley d.....		Mississippi Planing Mill Co (Jas Patrick	
Luthey Franklin d.....	Parkville	Pres't).....	
Harper & Ball d.....	Pendleton	Naber Chas d.....	
Kilian J C saw mill.....	Perryville	Nuelle W & Bro m and d.....	
Critt Bros d.....	Phelps City	Olcott Duroos & Co p m.....	
Barton J H d.....	Pierce City	Rippee Geo W & Co d.....	
Tribble Andrew d and saw mill.....	Platte City	Sterling John p m.....	
Hockaday J N & Son d.....	Plattsburg	Wright J C & Co p m.....	
Stearns d.....		Yaeger H C South Main st commission.....	
Beegle & Meyers d.....	Pleasant Hill	Hodges & Sons saw mill.....	Salem
Farmer & Jones d.....		Wofford C P & Co saw mill.....	
Hope Arthur d.....		Thornton J saw mill.....	Saline City
Boyce B F & Son sawmill.....	Point Pleasant	Dulaney Thos G d.....	Salisbury
Barkley David saw mill.....	Potosi	Wayland Ely d.....	
Smith Chas D saw mill.....		Young Geo saw mill.....	
Smith W D & Bro saw mill.....		Waterman & Nast d.....	Savannah
Walton & Co d.....		Bloess W & Co d.....	Sedalia
Cadle Henry d.....	Princeton	Gauss C H d.....	
Leeper John P d.....	Richmond	Ritter Richard d.....	
Baughner E H saw mill.....	Richwoods	White & Meyer d.....	
Traub Geo & Co d.....	Rockport	Warren W d.....	Shelbina
Cruesbour Chas d.....	Rolla	Ralph Jas d.....	Shelbyville
Russell Giles saw mill.....	Russell's Mills	McBride Jr C saw mill.....	Silver Lake
Ho'rah & Machens d.....	St Charles	Hendricks & Co saw mill.....	South Point
Smith Job d.....	St James	Ganahl Fidel d.....	South St Louis
Thummell W G d.....		Lobsinger Meegan & Co m and d.....	
DeClue John p m.....	St Joseph	Knott & See p m.....	Springfield
bougherty Ray & Co d.....		McDonald O G d.....	Stewartsville
Hamilton Bros saw mill.....		Shapter Wm saw mill.....	Taos
Hoagland Geo T & Son d.....		Marbes Chas d.....	Tipton
Lyon Geo d.....		Hannestein W saw mill.....	Tuscumbia
Pinger Chas & Co d.....		Mabrey Thos.....	Twin Springs
Smith & Swope saw mill.....		Willard P G & Son d.....	Utica
Waterman & Barnard d.....		Savage E d.....	Vandalia Station
Phillip Gruener, Jr., s. e. cor. of 9th st. and		Mundy W W d.....	Verona
Cas Ave d.....	St. Louis	Lowe W d.....	Warrensburg
Worheide & Luehrmann, planing mill, S13		Moore & Kinsell d.....	
Cass st.....		Schowengendt E & Son d.....	Warrenton
Schulenburg & Boeckeler m and d.....		Trentman, Uarup & Co p m.....	Washington
Lesley, Garnett & Co., planing mill, 124		Fletcher W d.....	Waverly
Olive st.....		Miller Jacob d.....	Wellsville
Parker, Spencer & Co., 3,922 Broadway m		Allen Jas P d.....	Weston
and d.....		Wells John B saw mill.....	
Knapp, Stout & Co., Bremen Ave m and d		Morse C C d.....	Windsor
Patrick Bros. Lumber Co., Bremen Ave d		Graves & Nichols d.....	Jamesport

NEBRASKA.

Dean, Dennis & Co d.....	Ashland	Godfrey & Co d.....	Lincoln
Wiggerhorn E A d.....		Grant P J d.....	
Lyman & Co d.....	Beatrice	Jones W G & Co d.....	
Parst & Marsh d.....		Monell & Lashley d.....	
Foster N d.....	Bell Creek	Noyes E d.....	Louisville
Crowell C C & Co.....	Blair	Moore & Sunderland d.....	Lowell
Bell John R d.....	Brownville	Hill W E d.....	Nebraska City
Clemans A F.....	Coleraine	Monroe & Dillan d.....	
Turner & Hulst d.....	Columbus	Linsabaugh W n d.....	Nebraska City
Sawyers & Leach d.....	Covington	Hoagland Geo T & Son d (St Joe).....	Omaha
Caldwell & Slade d.....	Crete	Young & Co (Clinton Ia) m and d.....	
Graves & Williams d.....	Fairbury	Moyer A sash, doors etc.....	
Jaynes D P d.....	Fairfield	Turner Chas d.....	
Edwards H L d.....	Fairmount	Foster W M m and d.....	
Lyon J F d.....	Falls City	Pomeroy & Kennedy d.....	Papillion
Rickards & Merrill d.....		Tisdale F A Jr & Co d.....	Pawnee City
Thacker & Davis saw mill.....	Falls City	Gardiner & Robinson d.....	Pebble Creek P O
Hoagland Geo & Son d (St Jo Mo).....	Grand Island	Waterman H A & Son d.....	Plattsmouth
Peck & Meston d.....	Harvard	Faulkner B & Co d.....	Schuyler
Ballard J H d.....	Hastings	Barrett W B d.....	Seward
Cox d.....		Sorter Isaac B & Son d.....	
Grannis A B d.....	Hebron	Gray W H & Son d.....	Sutton
Tinker E P d.....	Humboldt	Monell, Lashley & Weed d.....	
Sullenberger, Newton & Landon, saw mill.....	Ionia	Foster H P d.....	Tecumseh
Hedges & Granger d (Sioux City Ia).....	Jackson	Sanders Wm d.....	Unadilla
Van Alstyne W L d.....	Juniata	Crowell C C & Z A d.....	West Point
Babcock F C d.....	Lincoln		

KANSAS.

Kuney J & Co d.....	Abilene	Patterson J C d.....	Girard
Rice & Floyd d.....		Dudgeon F A & Co d.....	Grasshopper Falls
Gregory & Herrick d.....	Alma	Brinkman G L d.....	Great Bend
Channell S P d.....	Arkansas City	Bunting John d.....	Hanover
Easley Sherer & Stone d.....	Atchison	Treat M J R d.....	Hays City
Gillespie G W & Co saw mill.....		Bause J P d.....	Hiawatha
Hixon G C & Co d (Hannibal Mo).....		Spear I N d.....	
Jones & Co d.....		Dickey Jason d.....	Holton
Lukens David d.....		Williams & Woener d.....	
Clark H S d.....	Baxter Springs	Amos John d.....	Humboldt
Smith J H d.....		Stevens & Co d.....	Humboldt
Patter E M d.....	Belle Plains	Edwards W C d.....	Hutchinson
Campbell Geo & Alex.....	Beloit	Bradford McCoy & Co m and d (Quincy Ia).....	Independence
Holbrook T saw mill.....	Blue Rapids	Culver & Rowe d.....	Iola
Stakes G B d.....		Hunt E S d.....	Irving
Mynant J B d.....		Rogers L F saw mill.....	Island
Leslie M F d.....	Brookville	Boller H A d.....	Junction City
Voorhis A L d.....	Bunker Hill	Stickney A C d.....	
Miner S E & Co d.....	Burlingame	Green M T d.....	La Cygne
Cross David & Sons saw mill.....	Burlington	Bruce C & Co d.....	Lawrence
Smith L C d.....	Cedar Point	Grovener & Reddington.....	
Clipping P & Son d.....	Centralia	Lewis & Allen d.....	
Churchill & Co d.....	Chanute	Lewis & Ben-on d.....	
Eaton Z A & Co saw mill.....		Simpson Bros d.....	Leavenworth City
Manlove L d.....	Cherokee	Angell & Foster.....	
Brown & Co p m.....	Chetopa	Chambers Bros m and d (Muscatine Ia).....	
Officer R W d.....		Colly & Beckford d.....	
Tyler M S d.....	Clay Center	Ingersoll Jerome d.....	
Smith G W (agent for Johnson & Bridges).....	Clyde	Munson & Burrows p m.....	
McKircher & Mitchell d.....	Colody	Plummer & North saw mill.....	
Allen Bros d.....	Columbus	Spartley & Taylor saw mill.....	
Campbell D W d.....	Concordia	Bower & Bradshaw d.....	Lenexa
Edwards W C d.....		Green & Byrne d.....	Louisburg
Colton Bros d.....	Council Grove	Goodnow F d.....	Macpherson
McLoon E C d.....		Haight & Touts d.....	
Allen F M & Co d.....	Edgerton	Tyler M S d.....	Manhattan
Fauble J M & Co d.....	Edwardsville	Richardson & Clark.....	Marysville
Kuny Southwick & Co d.....	Ellsworth	Thomas R A & Co d.....	Muscotah
Amor Thos saw mill.....	Emporia	Brown S A & Co d.....	Neosha Falls
Pierce C F & Co (also at Wichita & Florence).....		Covert Parsons & Cozine d.....	
Lothholz Chas d.....	Eudora	Muse Spivey & Co d.....	Newton
Clogston & Allen saw mill.....	Eureka	Dorman & Gorsline d.....	Olathe
Raymond M B d.....		Hardin E F & Co d.....	
Pierce Chas F & Co d (Emporia).....	Florence	McCarthy J N d.....	
Dorman N d.....	Fontana	McNabb J A d.....	
Whare H E & Co d.....	Fort Scott	Hunsicker Isaac K d.....	Osage City
Brady A d.....	Frankfort	Gittins Louis d.....	Osage Mission
Hikins D J.....		Mills D C & Bro d.....	Oswego
Thorne W H d.....	Fredonia	McDonald Kemper d.....	Ottawa
McCoy W d.....	Gardner	Richmond Bro d.....	Oxford
Crane J P d.....	Garnett		
Flickenger Robt saw mill.....	Geary City		

Dahl W saw mill.....	Ozaukee	Pendleton B H d.....	Solomon City
Thayer J E & Son d.....	Paola	S L Choate d.....	Spring Hill
West A S & Son.....	Parkerville	Rogers J C & Co d.....	Bradford McCoy & Co m and d (Quincy Ill). Thayer
Wallis J A d.....	Parsons	Reed C d.....	Topka
Calkins & Fisher d (Chicago Ill).....		Tipton Bros d.....	
Mixell W d.....		Wildner & Eck d.....	Troy
Vinneman B & Co d.....	Peabody	Pope Clement d.....	Wamego
Campbell G W d.....		Boetcher A F & Co.....	
Chenault Bros d.....	Peace	Prunty Jas I d.....	Washington
Edwards W C & Co d.....	Pleasanton	Hoak Thos d.....	
Blaker & Bro d.....	Pomona	Baker A M (agent for Hixon & Co Hannibal Mo).....	Waterville
Horr Henry d.....		Johnson & Bridges.....	White Cloud
Ricksecker G V d.....	Russell	Palmer & Orton d.....	
Waterman & Hobbs d and sash doors etc.....		Taylor & Ortons, saw mill.....	Wichita
Yoxall Sons & Co d.....	Sabetha	Davidson & Switzer d.....	
Marbough & Block d.....		McClure W P & Co d.....	
Turner & sons d.....	St Marys	Millis & Stearn d.....	
McHale P H d.....	Salina	Pierce C F d (Emporia Ka).....	
Eberhart & Sudendorf d.....		Shellaberger Oliver d.....	Wyandotte
Goodnow Frank d.....	Sedgwick City	Holsberlein & Wholmeier d.....	
Bongdon W d.....	Seneca	Welcott A G d.....	
Curnett A H d.....			
Meacham J C d.....			

NEW YORK.

Dunham & Co J W d.....	Albany	Lee Box & Lumber Co d and p m 11 ave and 21 st.....	New York City
Moir James d.....	Buffalo	Chapin A & W & Bro d 23d cor 11 ave	
Pierce & Co m and d.....		International Ceiling Co 23 South William st.....	
Boller & Recktenwalt p m and sash etc.....		Menzies W & Son d ft of W 44 st.....	
Pooley Reinhardt & Co p m and d.....	Brooklyn	Moore J G 96 Wall st (Burnettizing Co)	
Loomis John S p m sash etc.....		Godfrey Wilson d 82 Wall st.....	
Peave Edward C p m sash etc.....	Edmeston Center	Weils & Bontecou & Co 344 West st.	
Ackerman & Son d.....	Friend-hip		
Miner A W d.....	Jamestown		
Marvin R N d.....			

OHIO.

Alpena Lumber Co.....	Cleveland	Barr Henry d 458 W 6th st.....	Cincinnati
C Chambers & Co d.....		Britton Isaac d 561 W 6th st.....	
Richardson & Wadsworth d.....		Hubbard R B & Co m and d.....	Sandusky
Sheiden S H & Co d.....		Campbell L A & Co.....	Toledo
Albro E D d 507 west 6th st.....	Cincinnati	Gilson J E.....	

ILLINOIS.

Stewart John m and d.....	B ackberry	Anawalt Denkmann & Co m and d.....	Rock Island
Hartman & Cook d.....	Clayton	Keators Wilson & Co m and d.....	
Dav's Cyrus A d.....	Dixon	Keed M T d.....	
Lovington John B d.....	East St Louis	Robinson D T d.....	
Benedict Franz d.....	Lanark	Weyerhaeuser & Denkmann m and d.....	
Hurnish M E d.....			

NEW JERSEY.

Chidester F R p m.....	Jersey City	Ripley David & Sons m and d.....	Newark
Taylor Bros.....	Monclair	Watson Twitchell & Clark m and d.....	
King W d.....	Newark		

MASSACHUSETTS.

Shephard Hall & Co No 6 central wharf.....	Boston	Fernald W A No 3 central wharf.....	Boston
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VERMONT.

Shephard Davis & Co d sash mould'gs etc Burlington		Knox Charles K.....	Burlington
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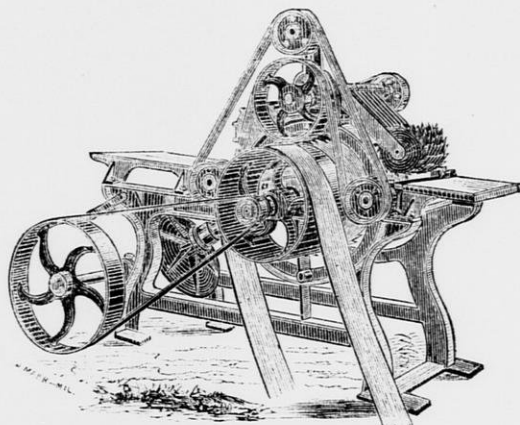
PENNSYLVANIA.

Lane N B.....	Brackwayville	Galvin T P & Co d head of N Del ave Philadelphia	
Carroll Geo & Bro d and p m.....	Erie	Harrison Joseph S d Shackamaxon st wharf.....	
Wheeler & Hill d.....		Woolverton & Tinsman 1151 Beach st	
Ketchum & Co m and d.....		Goodell Braum & Waters 1507 Penn ave	
Walbridge C H d.....		Taylor & Hoffman d 2040 Market st	
Erie Lumber Co d.....		Hochtkiss & Barber m and d.....	Williamsport
Clemens & Co d.....		Fessler P G & Co m and d.....	
Webster & Culbertson d.....	Giard	Peck D M m and d.....	
Bigler & Son m and d.....	Harrisburg	Reading Fisher & Co m and d.....	
Williams Daniel & Son d 6th st.....	Philadelphia		

MISCELLANEOUS.

Cooke W C.....	Pensacola Fla	Hatchitt Ziegler & Spottswood d.....	Frankfort Ky
Skعاد J m and d.....	Ottawa Canada	Towie Bros m and d.....	Dutch Flat Ca.

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- The Best Gang Bolter, “
- The Best Automatic Bolter, “
- The Best Swaging Machine, “

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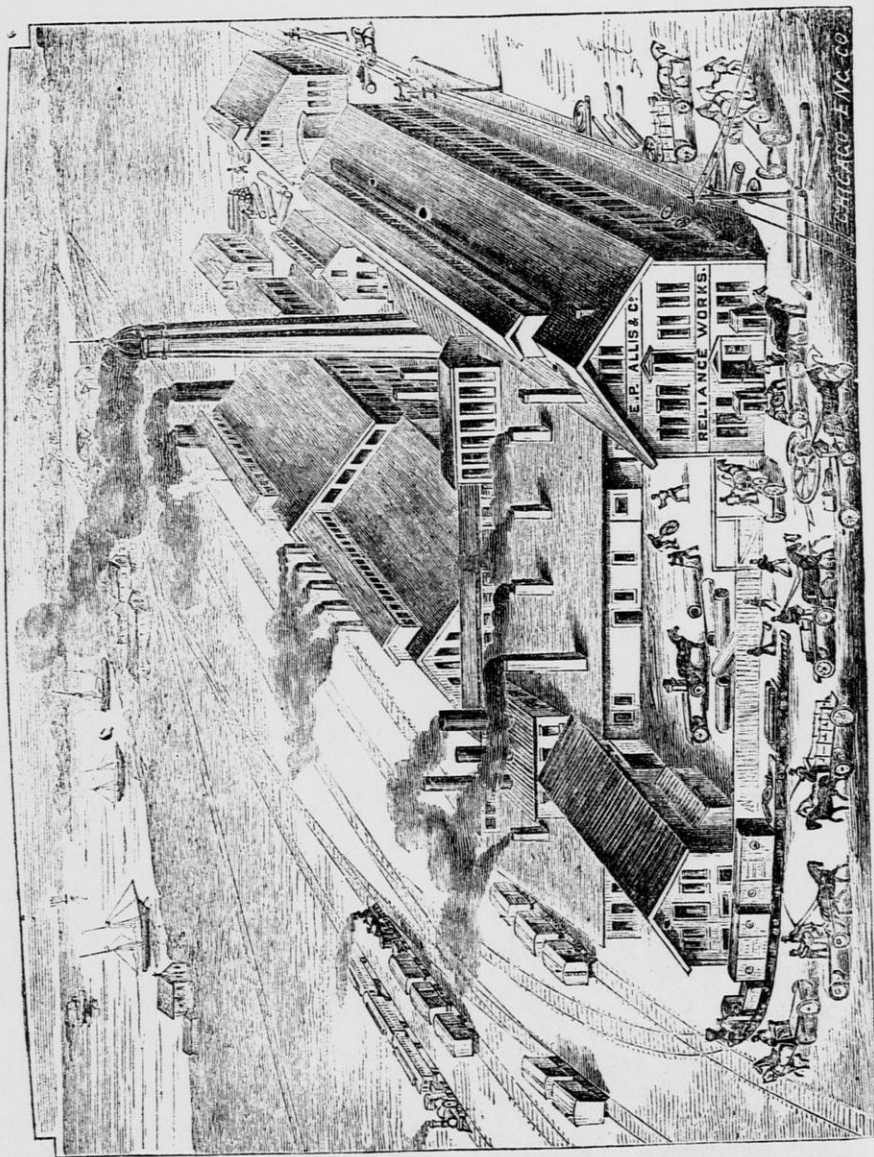
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