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## **The Wisconsin lumberman, devoted to the lumbering interests of the northwest. Volume III. Number 1 October, 1874**

Milwaukee, Wisconsin: The Wisconsin Lumberman Publishing Co.,  
October, 1874

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THE

# Wisconsin Lumberman,

DEVOTED TO THE

LUMBERING INTERESTS OF THE NORTHWEST.

OCTOBER, 1874.

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Editors: E. B. NORTHROP and H. A. CHITTENDEN, JR.

MILWAUKEE:

THE WISCONSIN LUMBERMAN PUBLISHING CO.,

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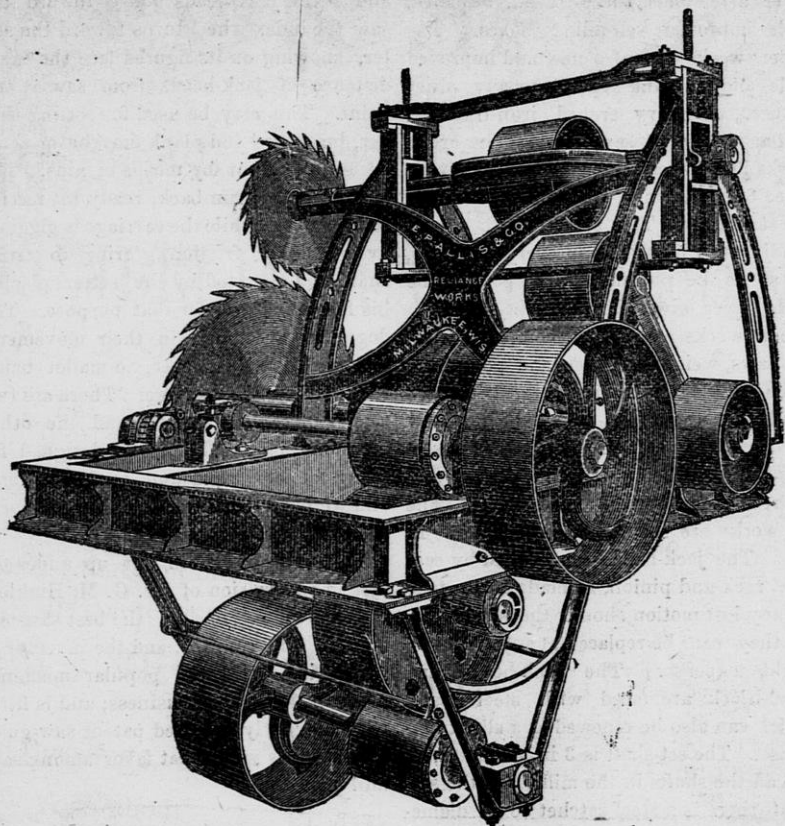
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## A Description of Interest to Practical Mill Men—A Fine Product of the Reliance Works of E. P. Allis & Co.

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 2½ in. diameter. There is a



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

The carriage is 24 feet long, with two head-blocks; but by means of our new rigid coupling can be put together in sections and made any length desired, and with any number of head-blocks. The set works are the most perfect now in use. The jack-heads are worked by cast steel rack and pinion, so made as to take up any lost motion should the steel wear; or they can be replaced at any time at a slight expense. The jack-heads and head-blocks are faced with steel plate, which can also be renewed at a slight expense. The set-shaft is 3 in. diameter, as are all the shafts in the mill. On the set-shaft there is a steel ratchet 18 in. diameter with line, cut wrought iron gears, and as the jack-heads move toward the saw the index wheel turns toward the setter, showing on its figured face the exact distance of jack-heads from saw at any point. This may be used for setting timber, but board and plank may be measured on quadrant by means of pins. The jack-heads are run back, ready to receive the next log, while the carriage is gigging, by means of friction gearing to truck shaft, and operated by the setter placing his foot on a lever for that purpose. The dogs are automatic in their movement, and worked with a lever, no mallet being required on the carriage. There are two sets of dogs—one for flat and the other for round logs. The mill is designed for doing the most rapid and accurate work, and we hope it will meet with the favor it deserves.

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

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

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

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

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

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THE

# WISCONSIN LUMBERMAN.

VOL. III.—SEPTEMBER, 1874.—No. 1.

## THE VALUE OF STATISTICS.

It is an acknowledged fact that no great business or industry of the country is so little supplied with reliable facts concerning itself, as the lumber trade. Until recently there has been no medium of publicity through which lumbermen could obtain thorough information in relation to the actual condition of the lumber business in the different portions of the country. The almost universal rule among lumber manufacturers has been to get cut and place upon the market every board possible with the means at their command, regardless of the conditions of time, business or prices. In no other one industry has the object of enlargement of business been so thoroughly carried out. The only business policy which has been thoroughly adhered to, is expansion. The large profits which a few years ago accrued to manufacturers, were almost invariably used to increase the facilities of manufacture, until now the mills of the country are enabled to place upon the market, any season, double the quantity of lumber needed by the legitimate demand. It is undoubtedly true that the actual yearly capacity of the saw mills is at least

three times as great as the annual consumption or demand for lumber.

The number and capacity of mills has increased in far greater proportion than the demand for lumber; not only that, but the facilities for transportation have increased in a corresponding ratio with the number of mills, until it is now possible to glut any market at very short notice. During the time of the wonderful development and increase in the business of lumbering, but little attention has been given to statistics on the subject of supply and demand. And now lumbermen are learning that such statistics are absolutely essential to a thorough understanding of their business and its interests. In all other branches of trade the operators depend and rely upon the information compiled from the different markets and different sources of supply. The wheat trade, the packing interests, the coal measures, and in fact, every business but lumbering is thoroughly informed in relation to the statistics of their trade. Absolutely certain calculations can be made in almost any line of business excepting that of lumbering. Now that manufacturers can place upon the markets any desired quantity of lumber, it behoves them to more

carefully study and know the actual conditions of the trade at all times. Statistics must be constantly prepared, and in such a reliable manner as to afford a reliable guide to all operators. The lumbermen of the country can no more successfully carry on their business blindly than could the wheat men. It is time the necessity of securing accurate statistics was heeded. The lumber journals of the country are ready and anxious to be of value to the trade. To be of value they must receive the assistance of the lumbermen in securing reliable data and information. This publication, for one, will make the greatest efforts towards securing such statistics as are of value to lumbermen generally. We ask assistance in the matter from every reader. THE WISCONSIN LUMBERMAN is starting on its third volume, and is in circumstances to be of decided value to its subscribers, if they will use its pages for exchange of information. Our own preparations for securing statistics are being made with care and completeness, but we also desire monthly information and suggestions from all our patrons.

The following statistics of the log cutting on the St. Croix and tributaries have been compiled from the St. Croix Boom Corporation books by E. W. Durant. As will be seen it includes all logs cut on the St. Croix waters during the past thirteen years, viz: from 1856 to 1874:

1856 to 1864.....	325,000,000
1865.....	108,617,316
1866.....	85,000,000
1867.....	86,000,000
1868.....	87,000,000
1869.....	157,612,223
1870.....	186,149,938
1871.....	146,586,000
1872.....	203,282,812
1873.....	169,163,628
1874.....	167,170,525

1,668,531,987

Logs and lumber not scaled by boom corporation..... 40,000,000  
 Logs cut and now lying above boom..... 10,000,000

Total..... 1,718,531,931

## THE CONDITION OF THE LUMBER TRADE.

Since our last quotations there has been a very slight advance, in the principal market, on fencing and certain dimensions of common lumber, yet neither the advance in prices nor the condition of the general trade give any indication of improvement in the lumber business of the country. When we realize that at this season of the year the yards should be in a very active condition of trade, the conviction is forced upon us that the prospects for any immediate improvement in the lumber business, are entirely wanting. It was hoped, last spring, that the immense overstock of lumber would be absorbed by the season's trade, as it was an acknowledged fact that the winter's production of logs was less than that of the two preceding winters. Yet it is now plain that the stock in pile at the mills was underestimated. It is a significant fact that the most reliable estimates place the amount of lumber now in pile at Chicago at *seventy-five million feet more* than there was at this time last year. There is a present overstock and there seems to be no prospect for even an ordinary fall trade. The situation is bad enough. All through the country lumbermen are making earnest efforts towards adopting measures of self protection in the shape of curtailment of production, a more thorough systematizing of the business and combined opposition to reciprocity with Canada. The effort to curtail production has come too late to be of much effect the approaching logging season, yet the organizations

now on a firm foundation will undoubtedly have power for great influence and good in the years to come. There are several important reasons for believing that the present situation of the lumber trade will not be improved upon very soon. There is a general stagnation of business all over the land. The wheat crop is light and prices for that commodity are low. The amount of money in bank all through the country shows conclusively that the currency is largely withheld from business channels and that it prefers investment in bonds and mortgages rather than in ordinary business ventures. There is lumber enough now in pile to meet the demand of 1875 should general business remain as quiet as every indication now seems to imply. Even if the business of the country could be immediately revived to a fair activity, a year would elapse before prices in any line could advance much from their present bottom. There is absolutely no indication that common lumber will advance sufficiently at any time during the next twelve months, to make it profitable to the manufacturers. Manufacturers may possibly be enabled to save themselves actual loss in money, but at any prices now likely to obtain it is impossible that they should escape loss in the value of the stumpage of every log cut this winter. An individual manufacturer need have no fears that he will miss opportunity for profitable sales next year should he conclude to let logging alone the approaching winter. Even if the log crop of 1874-5 should be reduced one-half the usual production, common

lumber could not advance next season to anything more than fairly saving prices. In no event, now within the limit of ordinary possibility, will prices advance materially during the twelve months to come. How much better then for manufacturers to maintain inaction for the present, husband their present resources of lumber in pile and logs unsawed, and await the revival of business throughout the country at large? Individual self preservation absolutely demands that manufacturers take a rest; yet there is very little probability that any large number of manufacturers will do so. Undoubtedly nearly all loggers will curtail operations somewhat, but still there will be sufficient logs put in this season to make a repetition of the dullness and disaster of 1874. Fortunate the manufacturer who can make up his mind to stop operations for one season and watch the business developments of the year. Pine lands cannot depreciate in value, but pine logs can.

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#### BUCKSER & HART'S FILE WORKS.

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The "Milwaukee File Works" of Messrs. Buckser & Hart are located at 279 West Water street. The Milwaukee File Works were established in 1864, and since that time the proprietors have built up a reputation and business second to few file manufacturers in the west. The number of men now employed at the establishment is nine. The proprietors are both practical file makers, each having been engaged in the business for a period of thirty years, and in that time kept pace with all the im-

provements made in their trade. The class or quality of work turned out by Buckser & Hart has no superior, as is evidenced by the patronage of such distinguished firms as the Mason Lumber Co., of Michigan, the La Crosse Lumber Co., the Eau Claire Lumber Co., Bradford, McCoy & Co., and a host of other lumber firms among the largest in the world.

The Milwaukee File Works make a specialty of recutting files, and in this the files are annealed and actually recut by hand, instead of using the patent and ineffectual process of recutting by use of acids. Messrs. Buckser & Hart are gentlemen with whom liberal and fair dealing is a maxim, and their customers invariably evince their satisfaction by a continuance of their custom. Every variety of file and rasp is manufactured by this firm, and we cordially recommend them to the readers of the WISCONSIN LUMBERMAN.

#### VALUABLE PINE LANDS.

H. L. Andrews, logger for the firm of S. B. & J. A. Paige, cut last winter at one of his camps, by actual scale, 2,500,000 feet of sound merchantable pine logs; almost the entire amount was taken from the S. W. of the N. W. of Section 6, town 24, range 13 east, being 40 acres. The net returns on this forty, above all expenses of getting the logs to market, was nearly \$12,000. They have 11 adjoining forties in this section, from which they have realized about \$40,000 net, for what has been taken off, and there still remains an operation for this winter sufficient to make the entire net receipts for the eleven forties (440 acres) sixty thousand dollars or say nearly one hundred and forty dollars an acre. This

beats very much the celebrated sale last year, of sixteen forties (640 acres) for \$50,000, about which so much was said at the time. S. B. & J. A. Paige have sold nearly all their logs and timber. Their sales thus far for this season, exceed \$60,000.—*Oshkosh Times.*

#### A DISTINGUISHED LUMBERMAN FOR CONGRESS.

Hon. Harrison Ludington, the popular mayor of Milwaukee, is a candidate for congress, from the fourth district, to succeed Hon. Alexander Mitchell. Mr. Ludington is a lumberman whom the WISCONSIN LUMBERMAN delights to honor and to see honored. His firm—Ludington, Wells & Van Schaick—will this season handle forty millions and will cut at their superb mills in Menominee, Mich., over twenty-five and a half million feet, having an actual cutting capacity of forty million feet per annum. It is now, we believe, the largest and strongest firm doing business in Chicago, the largest community of lumber dealers in the world.

Harrison Ludington came to Milwaukee from Putnam county, New York, exactly thirty-six years ago the sixth of next November, the day when his friends expect him to be returned to the house of representatives. Mr. Ludington drifted into the lumber trade about 1842, when, as he says, he "didn't know cull from clear board" and got stuck so badly in the purchase of a car load of stuff that the seller, as an act of grace, threw off 15 M. from his charge after the bargain had been struck. In 1851 Mr. Ludington began to manufacture, turning out two and a half million feet. In 1856 he put up



in Marinette, Wis., the first large steam saw mill erected in the west.

Harrison Ludington has been several times elected mayor of Milwaukee, on his personal merits, over the large regular democratic vote of the county. He is very generally known as a public-spirited, open-hearted citizen, and an economical, conscientious and intrepid officer. His friends are quite confident of his success in the present campaign. Without disparagement to the eminent distiller who is running against him, we may say, that should this representative Wisconsin lumberman, Harrison Ludington, be elected to congress, he will prove an honorable and creditable servant of all classes of the community which so honors him with its confidence and regard.

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#### OREGON FIR.

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The excellence of Oregon fir as a ship building wood has been so unmistakably proven that we are surprised and pained to notice the attempts that have been made, either directly or by implication, to detract from its reputation for the purpose of advancing private interests. Not long ago the relative strength of hickory, eastern oak and yellow fir was determinately tested in this city, when it was shown that the fir was fully equal to the best eastern oak, each breaking under the same strain. Now comes a wood preserving company which advertises, that, by putting the fir through its process of curing, it can be made as durable as eastern oak, thereby implying, or insinuating, that it does not, in its natural condition, possess the quality of durability to an equal extent with the oak, and modestly proposes to remedy the alleged defect for the mere trifle of \$6 per thousand feet.

We are preparing, and will shortly publish a statement which will prove, beyond all doubt, that the yellow fir is more durable and less liable to rot than the best eastern oak, without going through any process for the preservation of wood; and we shall give so many salient examples of this fact that no one will presume to question its reliability.—*San Francisco Commercial Herald.*

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#### THE LUMBER INTERESTS OF KEWAUNEE COUNTY, WISCONSIN.

Direct your attention for a moment to the map of Wisconsin, and as you follow up the exposed shore of Lake Michigan and double that stormy and to-be-avoided cape known as "Two Rivers Point," you suddenly perceive the small and somewhat obscure county of Kewaunee. Kewaunee county embraces a territory of about 360 square miles, is divided into nine towns, and contains a population of about 14,000 souls—mostly engaged in the farming business, although a large minority are lumbermen. Of this population about 80 per cent are foreigners—Bohemian, Belgian, German, and Scandinavian. Along the lake shore the soil is sandy and is suitable for only certain branches of husbandry, but as one advances back into the interior a few miles an abrupt change is noted, and the soil here has been pronounced by geologists the best in the state. The county is timbered with pine, hemlock, cedar, beech and maple, with a sprinkling here and there of oak. Most of the accessible pine timber has been cut off, and operations in the woods are mainly directed to cutting cord wood, bark, ties and posts.

The two principal villages in the



county are Kewaunee, the county seat, and Ahnapee, a beautiful town used as a summer resort situated on the lake shore twelve miles north of the former place. These two places are in size and growth about equal—each possessing about 1,000 inhabitants. The two newspapers published in the county, the *Ahnapee Record* and the *Kewaunee Enterprise*, are as lively and entertaining county sheets as can be found in the state.

Going back to the spring of 1842 we learn that John Valk, the first white settler in the county, arrived with his family at the mouth of the river known as Kewaunee (this name Kewaunee is derived from two Indian words, "ke-weenaw," which in English means "go around," so named probably from the fact that in early times it was necessary on account of marshes to go up the river about three miles in order to obtain fording.) Mr. Valk immediately proceeded to erect a log cabin and saw mill at this fording place, also constructing a dock in the lake for the purpose of shipping his produce to market. Valk found his insulated pioneer life one of hardships and trials. He often was destitute of supplies and compelled to resort to his gun in order to provide sustenance of life for himself and family. On one occasion when the expected supply vessel failed to put in an appearance, he found it necessary to build a skiff, capable of holding ten or a dozen barrels, and make a trip to Chicago. This voyage he made in ten days. After living in Kewaunee some years he removed to Oconto Falls, and there built and ran the first mill on the

Oconto river, then returned to Kewaunee, where in 1854 he sold his property to Slauson, Taylor & Co., and again removed to Oconto Falls where he now lives enjoying the autumn of a long and useful life. We believe the second mill in the county was erected in the spring of 1852 by the Messrs. Halls. This mill remained standing and in constant work until three or four years ago, when it was destroyed by fire. The Messrs. Halls have since replaced it by a larger and more convenient structure. Some years before the destruction of the "old mill" a grist mill was attached to it, which was the first institution of the kind in the county.

At present the most prominent lumbering establishment in the county is that of Slauson, Grimmer & Co., at Kewaunee. This mill is capable of sawing out about 12,000,000 feet of lumber per season. It also contains shingle and lath machines, and is pronounced by those who know the most complete establishment of the kind in the state. The company own a pier at this point, and also sail vessels, which are engaged in conveying their produce to market. About one hundred workmen are employed around their establishment. We understand that owing to the scarcity of pine it will continue operations but one more season, and will then be converted into some sort of a wooden ware manufactory. The partners in the concern are George Slauson and James Kelley, of Racine, George Grimmer and Joseph Duval, of Kewaunee. Mr. Grimmer has charge

of the winter logging operations, while in looking around the grounds one is struck with the perfect order and neatness of things, which can be accounted for by the almost omnipresent Duval, who superintends the mill work. Both of these latter gentlemen are eminently self-made men.

Scotfield & Co., at Red River, on the shore of Green Bay, have an important establishment. Here the company have made expensive improvements to constitute a safe harbor on that exposed shore for the safe keeping of logs. A breakwater inclosing two or three acres has been constructed into the bay, and the proprietors seem to bend their efforts to make a permanent, convenient, and valuable lumbering point here. The mill has also the latest improvements and comprises a double circular, three shingle mills, with bolting saws, edgers, etc. About 160,000 shingles with more or less lumber are daily manufactured by this firm. Messrs. Scotfield & Co. also own a large shingle mill at Tornado, in Door county. The senior member of the company, Charles Scotfield, is the republican candidate for member of assembly in this district.

About six miles west of the village of Kewaunee and seemingly isolated from all human habitation, Charles W. Dikeman owns an extensive shingle mill. This mill is also furnished with the latest improvements, and, under Mr. D.'s practical and experienced hands, is one of the most paying manufactories in this section. In connection with the mill is a mercantile establishment. Mr. Dikeman

is also part owner of a pier at Kewaunee, over which he annually ships to market about 7,000,000 shingles besides his custom work.

At Casco, twelve miles north-east of Kewaunee, in the interior of the county, Messrs. C. B. Fay & Co., have a saw and shingle mill. This firm turn out about 12,000,000 shingles and 500,000 feet of lumber per annum. This is conveyed by team to their pier at Langworthy, and from there shipped south.

A. Hall & Co., and Bruemmer & Co., have saw mills at work at Ahnapee, each of a capacity of from 10,000 to 12,000 feet per day. The former company also have a shingle mill in operation, and have recently added steam works to their concern, which theretofore had been run by water power.

In addition to these, the principal lumbering concerns in the county, the Messrs. Butkols have a small saw mill in Lincoln; Charles Bintlign, one at Langworthy; L. Heppler, one on Pierce Lake; C. W. Baldwin and Hatke, Brand & Christmass in Montpelier; Frank Peiverne and Charles Tisch in Carlton; and Wyta Stransky in Kewaunee.

---

Col. Wm. H. Jacobs, the popular cashier and manager of the Second Ward Savings Bank is nominated for the state senate by the reformers of the third district. There can be no serious opposition to his election. A model business man, a thorough gentleman and a social power in this community, he affords a gratifying contrast to many of the semi-reputable characters who assume to represent the community in the law-making department of the state government.—*Milwaukee Journal of Commerce.*

## OVER-PRODUCTION INEVITABLE.

## IMPORTANT UTTERANCE FROM THE LARGEST DEALER IN CHICAGO.

No Prospect of a Reduction in the Cut of 1875—Manufacturers Able and Determined to Carry on a Losing Business for Several Years to Come—Each One Secretly Striving to Increase His Own Product While Hoping that His Neighbors May Curtail Theirs—No Combination Short of Unanimity can Possibly Help Matters.

CHICAGO, Sept., 28th, 1874.

EDITORS WISCONSIN LUMBERMAN:—

The most important subject to lumbermen, whether mill owners or yard dealers, is the log product of the coming winter, and it is being pretty generally discussed among them, but not clearly understood. Chiefly because the trade is scattered over so wide an area of country.

The *Lumberman's Gazette* of Bay City, Michigan, of Sept. 19th, publishes a "protest" against "the course of certain dealers and newspapers in regard to the next winter's cut of logs in the lumber districts" "in which they are even now saying that the movements in the several districts (toward a reduced supply) are mere blinks." The article ends by saying, "We protest against these unreasoning attempts to cry down next year's market in advance, by representing that an impossibility will be accomplished this winter in the getting out of a full stock of logs."

The article from which the foregoing extracts are made was written in sincerity, and its author may state the exact feeling of Saginaw manufacturers, but from a Chicago standpoint I believe time will justify the doubts of "certain dealers and newspapers" on the subject of production;

and I will venture a guess that the Saginaw valley will produce in 1875 one-third more lumber than the *Gazette's* present estimate, whatever it may be. It is certain that the Chicago market will be as largely supplied during 1875 as the present year, if the surplus of January next as compared to January last is added to the season's importation, and, although each manufacturer indulges the hope that all others may reduce, he intends to log very nearly as much as formerly. I have conversed with many of our largest manufacturers and they admit having made plans for a good stock, and it is well understood that all of the principal streams now contain a large amount of logs and lumber, which must reach the markets of 1875. The manner of conducting the cargo trade of this port tends to over-production, as all sales are made on a cash basis and generally for cash on presentation of the certificate of measurement. With such return for shipments, manufacturers can conduct business at a loss per M, more than one season and not greatly impair their capital and certainly not lose the whole earnings of many prosperous seasons since 1863. By making moderate losses they hope to outlive less fortunate competitors and bridge over the interval to good times.

Nothing but disaster will set matters where a profit can be looked for, and it may be long deferred from any positive evidence this locality presents, as the larger firms and companies have accumulated large assets, and to this date have lost little more than interest and labor.

The vessel interest has been a greater loser during 1874, when employed in lumber, than the lumber itself. Had the grain and lumber trade taken a full average quota of tonnage, the present year, the loss to lumbermen would have been serious and a step gained toward ultimate reduction.

As a manufacturer I certainly desire a smaller cut of lumber, not only this year but all subsequent ones, and any movement looking to that reduction claims the support of all interested but consumers. I do not regard the plan of combining to saw less lumber, as likely to effect good results unless at least 80 per cent. of the whole sawing capacity is combined, as the condition of all those not boomed would no doubt compel them to actually add to their manufacture.

Time together with low prices will prove a remedy, and I fear the coming season of 1875 will not see the end of cheap lumber. Certainly not if the newspapers published in the interest of lumbermen, begin thus early to predict a reduced supply of logs. I hope you will not advocate any such doctrine, unless you have good proof, and then go lightly, as it is a dangerous theory for lumbermen to consider.

A. G. V. S.

Rev. J. L. Dudley, the most learned and philosophical congregational preacher in the west—a man who, wherever he may be placed, is bound to lead the little band of industrious and sincere thinkers in the church—has tendered his resignation to Plymouth church, of this city. Milwaukee can ill afford to lose so fine a light.—*Milwaukee Journal of Commerce.*

#### CRANE BROS. MANUFACTURING COMPANY.

The great machinery manufacturing establishment of Crane Bro's., Chicago, is one of the marvellous creations of western business capacity, pluck, shrewdness and integrity. A history of the commencement, growth and present success of this immense concern would be replete with interest and valuable information and suggestions, yet a mere glance at the present condition and surroundings of the establishment will be of little interest. The officers of the Crane Bro's. Manufacturing Company are:

President, R. T. Crane.

Vice-president, C. S. Crane.

Secretary, S. W. Adams.

Treasurer, J. W. Skinkle.

The buildings occupied as the machine shops proper are five stories in height and front on Jefferson, Desplaines, Wayman and Fulton streets. Seven hundred laborers are employed and the pay roll amounts to \$50,000 per month. Nearly every variety of iron and brass goods, iron pipes, elevators and machinery are turned out from this establishment. The brass used in all machines or fittings is manufactured at the works. The capital of this company is \$1,000,000. Very many of the machines made are inventions or improvements made by Mr. R. T. Crane who has achieved a reputation as an inventor. It would be useless to attempt to enumerate the different products of the Crane Bro's. Manufacturing Company; sufficient to say that every variety of iron or brass goods or machinery can be supplied



by this firm. The brothers R. T. and C. S Crane emigrated from Patterson, New Jersey, to Chicago in 1855, to a small shop on Canal street, where they commenced the manufacture of brass goods. They then employed five men. The growth of their business to its present mammoth proportions with its capital of a million dollars and its employment of seven hundred laborers is an example of success of which even Chicago and the great west may be proud.

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"THE BOSS DOG."

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Filer, Stowell & Co., of Milwaukee have a new thing in the "dog" line. The merits of excellence claimed are as follows :

First, it will seize the log and draw it to the standard. No dogs, unless they are curved and work in opposite directions, can do this successfully on all kinds of logs, as well as cants. Filer, Stowell & Co., control the only patents on this style, and any others are infringements, not profitable or safe to buy.

Second, The double-tooth dog is a new invention by Mr. Albert Cunningham, to whom a patent will soon issue, and is the best device ever found to supplement the teeth usually used for flat surfaces, so that round logs, of whatever shape or size, whether with thick bark, thin bark, or no bark, will be seized instantly

by this, and held so securely that not even a growl is ever heard. In wide surfaces five teeth enter, so that heavy timber, overhanging the blocks, is as securely held as a light cant.

Third, They are made almost entirely of steel, (remainder wrought iron,) and examination will demonstrate that the manner of construction is so complete and thorough as to render them the strongest and most durable of any yet made which have any pretensions to approach them in excellence.

Fourth, By a new arrangement of a Ratchet and Pawl the dogs are held in whatever position they are left in the log, and there is, therefore, no possibility of their letting go.

Fifth, Whenever the operator, through careless, or design, drops the lever, all the teeth are withdrawn and recede into the standard, so that in no case can they get their noses taken off by the saw. Mill men will appreciate the danger to men, saw and dogs which is thus avoided.

Sixth, The leverage, and consequently strong grip, of this dog is greater than is found in any other, so that a more secure hold is obtained by this dog, with slight exertion, than is gained by others by the utmost effort.

Seventh, By the application of universal joint to connecting shaft, these dogs may be attached to head blocks, which are independent of each other, so that it makes no difference whether the standards move parallel with each other or not. Of course they can be used in connection or independently. For this



feature, also, Mr. Cunningham has applied for a patent.

Eighth, The valuable qualities of this dog are secured, first, letters patent, granted to N. F. Beckwith, December 26th, 1871, and by the applications just made by Mr. Cunningham, which cover all that is really valuable in any mechanical canine for this purpose.

#### SHIPMENTS FROM THE ST. LAWRENCE TO THE RIVER PLATTE.

From a circular just issued by Messrs. Hall & Co. lumber merchants of Montreal, we learn that the shipments from the St. Lawrence to the River Platte from the opening of the season to August 20th amounted to 3,887,686 feet, whereas the shipments for the same destination during the corresponding period of last year reached 14,307,695 feet. It is true that vessels now loading or preparing to do so will take out 2,910,000 feet more; but still the falling off in the trade transacted between the two countries is sufficiently striking or arrest attention. According to the most recent accounts from Rivet Platte, we find that that region is not likely to suffer any diminution of its prosperity. The present stagnation in the timber trade has been brought about by the enormous shipments of lumber forwarded from the southern ports of the United States during the last year or two, which have completely glutted a market of limited powers of expansion. The southern lumbermen must have already suffered enormous losses through the reckless policy of flooding every market within reach with their goods. The lesson has been so severe that there is reason to hope a considerable time will elapse before we again witness such convulsions in the trade as we have had to record during the past year.

## PROSPECTS OF THE COMING CROP.

NOTHING BUT AN OVERWHELMING DISASTER WILL RENOVATE THE TRADE.

No Hope of Material Improvement in Prices without a Radical Change in the Policy of Manufacturers—Importance to the Lumber Trade of Precise Information—Every Lumberman Should Subscribe for the "Wisconsin Lumberman" and Keep Fully Posted—The Idea of a "Lumber Famine" in this Generation Exploded.

CHICAGO, Sept. 7, 1874.

EDITORS WISCONSIN LUMBERMAN:

—It affords me pleasure to inclose my annual subscription to your valuable journal which has steadily improved in all respects with age, until no lumbermen should be without its market reports, statistics, &c. The production of lumber the present year proves clearly that the majority of manufacturers have been guided wholly by local information, and with little if any knowledge of operations at remote points tributary however to a common market.

The newspapers place before producers and buyers of grain, information so correct and valuable that the grain trade is conducted with system; and the past, present and future of the grain market is exhibited to guide all classes interested; but the lumber trade, with its vast annual production remains in the utmost uncertainty during the winter months, and the manufacturers rush large amounts of lumber to market, only to find the supply too great, where a moderate investment in a lumber journal, would have given them a fair idea of the condition of the lumber trade.

The consumption of lumber can be closely estimated in advance at the

principal distributing points, and there is no good reason why lumber should ever become a drug on the market, when business is not checked by a financial crisis or the failure of a grain crop.

Manufacturers are wholly at fault for the present low prices, and those that are sure to rule during 1875. They hauled too many logs during the past winter, and when they learned that the market would be overstocked with lumber, made little if any effort to carry their logs, until the surplus of lumber was sold and the market prepared to take the balance.

The effort of leading manufacturers to reduce the cut of 1875 by an agreement, if successful, would be a sure remedy, but so few would join the combination that nothing need be expected in the way of a combined movement. Should one-half the sawing capacity agree to curtail, and become bound to do so, the remaining half would make good the deficiency and add sufficient to their production to make the manufacture of 1875 equal if not greater than that of the present year. It is estimated that 154 saw mills situated on railroads can ship lumber to Chicago, if the price warrants their doing so, and any advance from the present low prices would stimulate the owners of these mills to increase their business largely — which if necessary could be done by summer logging, although I see no profit in common grades of lumber, until a reduction of fully 200,000,000 is made in the yearly production for the Chicago market; and would glad-

ly adopt any plan to cause this reduction. *I believe an increase of lumber will be the shorter path to a remunerative market.* Any careful student of demand and supply must admit that, with the large sawing capacity, which is increasing quite as rapidly as the market for lumber is much reduced, and as there is no hope of a voluntary reduction, the alternative is to produce an amount of lumber so great as to cause a repetition of 1858. In that event I will guarantee a reduction of 40 per cent. in 1876 from the cut of 1875, and a paying market for five years, for the surviving firms. Lumbermen do not inform themselves of the business of competing markets, until too late, and do a large amount of guess work in conducting their business; so much so that I have no faith in any improvement in the future.

The past winter correctly illustrates how hopeful they are as a class. If on the heels of a financial crisis of great magnitude, with markets overstocked at all lumber centres with prices depressed for lumber by cargo and from yards, with banks contracting their loans, and almost driven to suspension, with corn selling in Chicago at 34c, oats at 26c, pork less than \$5 per cwt, (showing the poor prospect of a country demand for 1874) plans were made to haul the log crop now being marketed, what can be expected but a more hopeful view of the trade from the present out-look by the identical men who planned the logging of the past winter? It is true these hopeful men, as a rule have less pine timber to haul and in many cases less capital

than one year ago, but they are rich in hope, and nothing but disaster will change their policy.

Another difficulty presents itself to cause an overstock of logs, the coming winter; it is claimed that the forest fires in Michigan will compel many to haul logs to save them. So far as it applies to the higher grades of lumber, a saving can be effected but with lumber at \$7.50 per common by cargo, a loss would be the result, and the timber will not pay for saving unless the owner can get his logs afloat, and hold them. Saving the burned timber of 1871, would have ruined the price of lumber in 1872 had not the Chicago fire provided a market during 1872 for the excess of manufacture. Very many suppose that this desire to curtail production, is wholly in the interest of manufacturers and will, if a success, result in their benefit alone. All yard dealers know that too large a supply of lumber causes a falling market, and when any commodity is crowded on a market, the result is low prices and little if any advance. The majority of lumber is now held by parties who own no saw mills, and they have made no money so far during 1874 owing to a declining market, anything looking to a smaller supply adds to the value of stocks now piled, and a reduction in manufacture removes the anxiety of manufacturers to sell who have docks in Chicago and elsewhere, and yard dealers are not subject to the ruinous competition they now experience from this cause.

Before closing my already too extended letter, I trust you will pardon

me if I caution you to touch lightly in your journal on two subjects if you desire your predictions to be verified by time—never predict a short crop of lumber, unless to your certain knowledge fully one-half the number of saw mills are burned and not likely to be rebuilt—and never venture an opinion that a timber famine will occur during the present generation of lumbermen. The large amount of lumber cut in the west, has of course reduced the supply, but with the knowledge that a few streams have been abandoned and shipments ended, I believe the supply has actually improved, during ten years past owing to railway building, through the pine districts remote from streams. Grand River, Manistee, Menomonie, Oconto, Muskegon and all the principal streams have been levied upon for twenty years, and the simple fact that, during two years past, mills of the largest capacity have been built on each of the above streams explodes the idea of a timber famine. It is for the interest of the trade to inform you of what is being done at the principal lumbering districts, that others may learn the supply of logs during the winter months. Heretofore it would seem that each location supposed logs would be very scarce at all other places. The man or firm, who estimates a short supply of pine logs or lumber, with the present number of mills in existence, will learn in time that it was a clear case of "misplaced confidence."

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Subscribe for the WISCONSIN LUMBERMAN.

# THE "WISCONSIN LUMBERMAN" AND THE EAU CLAIRE LUMBER COMPANY.

We are apprised that Mr. Levi W. Pond informed a Chicago party that Mr. Gilbert has "quieted" the WISCONSIN LUMBERMAN so that it will not be heard from again on the sheering boom question. This is certainly information to us, and we imagine it will prove such to Mr. Gilbert. The WISCONSIN LUMBERMAN has been "quieted" by such a material modification of principal affidavits upon which the claims of Mr. Pond were at first disputed, as to incline us to question whether the popular side of the controversy can be legally maintained. While our sympathies are naturally with the many as against the few, we are obliged by a sense of propriety to leave a case which has proved more complex than it at first appeared to the final determination of the courts.

Had the Eau Claire Lumber Company left their rights to the determination of the courts in the first instance, it is not likely that the WISCONSIN LUMBERMAN would ever have felt authorized to take a hand in this discussion. Upon what seemed and still seems to us to be a very curious, unnecessary and unprecedented piece of special legislation, we had occasion to pass some remarks which we find no reason to withdraw. While we cannot blame the Eau Claire Lumber Company for employing every means within their reach (expect such means as Mr. Pond has wrongfully charged them with employing) to secure their rights in Mr. Pond's invention, we are free to express our surprise that they should have ob-

tained the special action of congress to secure them in rights which they believed that the courts must accord them. From all that we know and can learn of the manner in which this special legislation was enacted by congress, we are still disposed to think it discreditable to the members who procured it and a source of weakness to the cause of the Eau Claire Lumber Company. Special legislation in connection with the patent laws and the extension of monopolies is common enough, as everybody knows. We believe there never was an instance of legislation quite so "special" as the act of congress which first signalled our attention to this case.

## THE DECLINE IN MECHANICAL SKILL.

Twenty-five years ago surfaces of wood were made smooth and exact by a plane in the hand of a mechanic. The same is true in surfaces of metal, except that the instrument used was file or a chisel. Great works were impossible, except at a heavy cost; and a contract that would be a mere trifle in these days was a serious undertaking, for it involved calculations as to the number of men who had sufficient manual dexterity to be entrusted with the work. In reducing the valve seat of a steam engine, for instance, to a plane surface, a few too heavy blows on the chisel would render additional labor necessary, adding much to the cost.

The circumstances of those times produced good workmen. They make mechanics in every sense of the word, men of ample experience and high intelligence, familiar with all branches of their business, and able to execute one detail or the other with equal facility.

Through the introduction of automatic machines, which only require



to be set in motion to produce certain forms, manual dexterity is no longer a prime requisite, and as a consequence versatile mechanics are scarcer every year. A prominent man remarked to us recently: "I can take all the so-called carpenters in this town, and out of the hundreds find a dozen, perhaps, worthy of the name; a dozen who understand their calling in all details, and can estimate for a contract." Persons having work done in country towns may be able to verify this statement from their own experience. Work which was to have cost a certain sum has exceeded it enormously. The reason is in the fact that the men were ignorant of their business and guessed where they should have calculated.

Machines reproduce certain forms with far more accuracy than the hand can do, and with much more rapidity. The result is advantageous to society at large, the workman included, but it is destructive to manual dexterity as applied in the arts. The abolition of the apprentice system has also much to do with this condition of things. When a young man served seven years at his trade he was fitted to undertake journey work at the end of the time, receiving a journeyman's pay; but the system having fallen into disuse, no fixed time being required in most cases, or no penalties attaching if the time agreed upon verbally is not adhered to, young men become restless, and leave after acquiring a mere smattering of their handicraft, and go to seek their fortunes. The result is that the workshops are full of men who can do certain lines of work and no others, and manual skill in the use of all tools, with all that it involves, is no longer common. Many who are out of employment at dull seasons have only themselves to blame for it, for they have failed to become adepts, because they have learned only such portions of their business as would enable them to fill supernumerary places.—*New York Sun*.

### THE COMING CUT.

**Lumbermen have not yet Learned the Necessary Lesson—They must Burn their Fingers more before they Will Dread the Fire.**

The weekly bulletin issued by the *Northwestern Lumberman* under the latest received date, says :

The most arrant nonsense conceivable is displayed in the arguments put forth in certain quarters pretending to show why the log cut for the winter of 1874-5 can not be as large as in former seasons. We have expressed our opinion of the idea of curtailing production by a compact, which directly means monopoly, elsewhere in this issue and believe its expression will meet with the honest approval of every lumberman who gives the matter careful attention. It is a fact well known in this market that unless the coming winter should prove unusually inauspicious for lumbering, that at points furnishing the greater part of the stock sent here there will be fully as many, and in one or two instances more, logs cut than last winter. Last fall certain journals advanced just this same argument, i. e. That the lumbermen had no money wherewith to operate and would be virtually compelled to curtail their operations. Every phase of the trade since its opening last spring has shown the absurdity of such speculations. The lumbermen did go into the woods and they did cut about double the amount of logs which the aforementioned journals claimed they were able to and still they are not bankrupt. More money must be actually lost by the operators than has been the case thus far, before the logging business will be lessened. That lumber manufacturing has been or is being conducted at a dead loss to the manufacturers, the present season, is not true, as it would seem many suppose. There are lumber firms, and their number is by no means small,



who can carry on their business upon the basis of its present condition for a considerable term of years, without any prospect of bankruptcy either. The question of absolute profit, or interest upon millions invested is quite another thing. There is more available money now than last fall when the first and worst effects of the panic were upon us.

This question of supply and demand would be effectually settled if every one in the trade would apply to his business the simple common sense rule contained in the following remark made by a prominent and wealthy operator in a public meeting not long ago: "Gentlemen, we shall cut, and continue to cut, just as much lumber as pays us and no more!" It certainly seems the sublimity of short-sightedness to do otherwise. Unless the elements conspire to prevent, it is our opinion based upon observation and the judgment of experienced operators, that the spring of 1875 will find a supply of logs and lumber not far short of that of 1874, and in such case the price of the manufactured article will undoubtedly be lower than has prevailed for the past eight months. In that manner only will the evil of over production work out its own remedy.

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#### FRENCH SAW MAKING.

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The *Scientific American* gives interesting information in relation to the method of manufacturing ribbon saws in vogue among French saw-makers, as follows:

The Paris makers have almost a monopoly, we understand, in the making of ribbon saws, and of late years they have given much attention to the production of all kinds of saws and other articles made of sheet steel. Among others, M. Dugoujon, who has steam works at Paris, has patented a number of improved modes of manufacture. The blades, after being rolled cold several times,

in order to render the grain close and the metal homogeneous, are heated in special furnaces, from which the air is carefully excluded, and when at the proper temperature are plunged in a bath of colza oil; this is done in a dark chamber. The tempering is effected with the aid of machines, which cause the blades to pass between cast iron plates, heated to a fixed temperature, according to the nature of the article to be produced. The teeth of the saws are cut by machinery, which require only laborers to attend to it. Since the war, which deprived the establishment of some of its best men, M. Dugoujon has effected the planishing and grinding of circular and other saws and many similar articles by machinery, and, it is said, with great advantage with respect to regularity and stiffness.

Another introduction is the mechanical reduction of the joints of ribbon saws. The breaking of the joint is the only inconvenience about this useful instrument. The workman, in reducing the welded part by means of the file, scarcely ever left it of exactly the same thickness as the rest of the blade; thus it either created extra friction or was liable to break.

By the new method the reduction is made by grinding instead of filing; and as that is effected longitudinally, instead of across the blade, the thickness is rendered perfectly uniform. This invention is said to save 60 per cent in wages, besides the cost files.

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We have on our table a piece of cement pipe taken yesterday by Mr. Chas. H. Swan from a drain where it had served for six years. It was hard as stone, perfectly sound and remarkably free from sediment. It shows what cement sewer pipe can do when honestly and competently made and is a triumph for Messrs. Berthelet Bros.

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The WISCONSIN LUMBERMAN, at \$2 a year is the cheapest first-class magazine in the United States.

## THE NATIONAL ASSOCIATION

## THE MEETING AT EAST SAGINAW, SEPT. 15.

A Large, United and Enthusiastic Assemblage of the Lumbermen of the Country—List of Members—Adoption of Constitution—Important Resolutions in Relation to Curtailment of Production—Reciprocity Denounced—Taxation and Insurance Discussed—Action in Various Matters Pertaining to the Welfare of the Trade.

The following report of the recent meetings of the National Association of Lumbermen at East Saginaw is full of valuable information and suggestions. We are indebted to the Saginaw papers and the *Boston Lumber Trade* for complete

The association met at the Lumber Exchange of Col. C. V. DeLand, at East Saginaw, Mich., on Tuesday the 15th, according to adjournment; and was called to order by Hon. J. G. Thorpe, of Wisconsin, and on motion of Mr. Merrill, of Williamsport, Col. Charles V. Deland, of East Saginaw, was appointed temporary secretary, and R. G. Horr, of East Saginaw, was elected temporary treasurer of the association.

The secretary read the articles of association, as adopted at Williamsport, and the same were approved by vote of the gentlemen present.

On motion of Mr. Peck, of Pa., the members present were authorized to open the books and receive the names of those proposing to become members. To test the sense of the meeting, Mr. Owen, of East Saginaw, moved that the membership be reduced from \$10 to \$5, which was discussed by several gentlemen, and be-

ing put to vote was lost. The books were then opened for additional membership.

The following is a list of the members of the association:

L. D. Wetmore, Warren, Pa.; J. G. Thorpe, Eau Claire, Wis.; Henry White, Williamsport, Pa.; N. Shaw, Lock Haven, Pa.; C. T. Marston, Hartford, Conn.; W. H. Gleason, Biscayne, Florida.; R. M. Forsam, Williamsport, Pa.; Ezra Rust, Saginaw City Mich.; Thomas Tosis, Williamsport, Pa.; D. M. Peck, Williamsport, Pa.; Garret Truman, Williamsport, Pa.; Thomas P. Merrett, Williamsport, Pa.; John F. Drew, Washington, D. C.; F. Coleman, Williamsport, Pa.; H. H. Colquitt, Savannah, Ga.; Charles Hibbard, Williamsport, Pa.; P. B. Merrill, Williamsport, Pa.; G. W. Lentz, Williamsport, Pa.; D. H. Merriman, Williamsport, Pa.; R. H. Housell, Williamsport, Pa.; A. C. Hopkins, Lock Haven, Pa.; J. Henry Symonds, Boston, Mass.; W. S. Patrick, Detroit, Mich.; Shaw & Williams, East Saginaw, Mich.; W. R. Bates, East Saginaw, Mich.; C. V. Delann, East Saginaw, Mich.; J. S. Estabrook, East Saginaw, Mich.; G. A. Camp, Minneapolis, Minn.; E. S. Brown, M. Mower and E. M. Durant, Stillwater, Minn.; James Hay, Saginaw City; S. H. Webster, East Saginaw, H. Y. Bell, St. Paul, Minn.; D. W. Rust, Saginaw City; Newell Avery and T. W. Palmer, Detroit; J. A. Whittier, East Saginaw. W. L. Price, Black River, Wis.; E. J. Ring, Saginaw City; W. R. Burt, East Saginaw; L. Butler, Minneapolis; J. W. Gaskill, Philadelphia; C. Leitch.

Manistee; C. H. Davis, Saginaw City; O. H. Ingraham, and Eugene Shaw, Eau Claire, Wis.; Thomas Saylor, E. F. Gould and R. G. Horr, East Saginaw; E. M. Fowler, Bay City, Mich.; Henry C. Putnam, Eau Claire, Wis.; Abner Gile, LaCrosse, Wis.; D. J. Spaulding, Black River, Wis.; James Hewett, Neilsville, Wis. J. F. Brown, Big Rapids, Mich.; J. G. Owen, East Saginaw; L. Penoyer, St. Charles, Mich.; William Carson, EauGalle, Wis.; John Paul, LaCrosse, Wis.; J. A. Lovejoy, Minneapolis; N. K. Still, LaCrosse; J. D. Ludden, St. Paul; H. G. Harrison, Minneapolis; George N. Hauptman, East Saginaw; C. Davis, Wm. M. McKillop, and S. C. Hall, Muskegon; J. H. Pearson, Chicago; R. K. Hawley, Baltimore; Edwin Eddy, East Saginaw; Wm. M. McClure, agent of John McGraw, H. M. Bradley, and A. Miller, Bay City; W. S. Patrick, Detroit; J. E. Shaw, East Saginaw; W. R. Bates, East Saginaw; Seth McLean, East Saginaw; John Welch, East Saginaw; Hunter Savidge, Spring Lake, Mich.; W. Emery, Williamsport; F. Reading, Williamsport; E. Gallifer, East Saginaw; John Wright, Almont, Mich; Charles L. Oatman, East Saginaw; L. Britman, Saginaw City; N. S. Lockwood, Saginaw City; N. B. Bradley, Bay City; G. P. & B. Chapman, Bay City; L. B. Graham, Bay City; Thomas Merrill, Saginaw City; J. H. Hill, East Saginaw; C. D. Hall, Tawas, Mich.; S. H. Sheldon, Cleveland, O.; James T. Terry, East Saginaw; W. D. Washburn, Minneapolis; Julius S. Klopenburg, East Sawas, Mich.; T. W. Terry, Grand Haven; Isaac Staples, Stillwater, Minn.; John J. Bagley, Detroit; Henry S. Dow, Bay City.

Mr. Estabrook moved that a committee be appointed to report resolutions and business for the convention at its future sessions.

Mr. Durant moved to amend by appointing two committees, to consist of one from each lumber district, on the following subjects:

- 1st. To curtail the lumber product.
- 2d. On the subject of reciprocity.

After discussion, the amendment was withdrawn, and the original motion was carried.

The chair named the following committee on business and resolutions:

J. S. Estabrook, chairman, East Saginaw.

D. M. Peck, Williamsport, Pa.  
 T. W. Palmer, Detroit, Mich.  
 O. H. Ingraham, Eau Claire, Wis.  
 W. R. Burt, East Saginaw.  
 J. M. Gaskill, Philadelphia, Pa.  
 Chauncey Davis, Muskegon.  
 E. S. Brown, Stillwater, Wis.  
 W. T. Price, Black River Falls, Wis.

J. H. Pearson, Chicago, Ill.

At the request of the convention, Hon. Moses W. Field, representative from the First Michigan District, in congress, addressed the association on the subject of reciprocity and the tariff duty on lumber.

Mr. Giles B. Stebbins, of Detroit, was called out, and further discussed the subject of reciprocity, and its effects upon the labor depending upon its industry for its prosperity.

Hon. Wm. T. Price, of Wisconsin, was called out, and made some very

appropriate and practical remarks, directly affecting the lumber trade, its labor, capital, and the necessity of protecting and fostering it as against foreign competition.

On motion, the association adjourned until 10 o'clock this morning.

WEDNESDAY, SEPT. 16TH.

The association met at the Exchange, and was called to order at 10 o'clock, by the Vice President, Mr. Thorpe.

The first business being the reports of Committees, a report was read by the Secretary, and placed on file.

Col. H. H. Colquitt, of Ga., sent the following report upon the classification of pitch pine, from the committee appointed at Williamsport, which was read and placed on file.

All Heart—Entirely free from sap, shakes, unsound knots and other defects.

Prime—Two-thirds heart on most sappy face the whole length, free of through or round shakes, of sound material and no unsound knots.

Prime—In flooring, one face free from sap and the other side two-thirds heart, not over one knot in every two feet of the length, and the knots so allowed to be not larger than a five cent nickel.

Prime—Stepping—Same rule applies as in flooring, except that two small knots are allowable to every two feet of length.

Prime—Scantling—To show three corners heart, in other respects to come up to the general standard, as given above for prime.

Merchantable—Of sound material, to show half heart on most sappy face the whole length, free of through or round shakes and unsound knots.

Merchantable — Flooring — Some inspection and knots allowable, if sound and not limb knots.

Merchantable—Siding—Must be

plump 1 inch or 1 1-4 inches thick, two-thirds heart on the best face, square-edged and sound, 7 inches and up wide, 14 feet and up long.

Square Edge—Sound material and square edge regardless of sap.

Square Edge—Siding—Sound material, no wane edge, can be any width, or length over 8 feet.

Scantling shall be understood to mean all dimensions running from 2x2 to 8x8 where the width and thickness does not vary over five inches.

Sawn Timber—shall be understood to mean lumber running from 8x8 to 20x20 or larger.

Boards—shall be understood to mean lumber from one inch to two inches thick but not including the inch stuff over six inches wide.

Plank—shall be understood to be 2 to 8 inches thick, 8 inches and up wide, and where the width exceeds the thickness at least six inches. In ship plank there will be exceptions to this rule.

Flooring shall be understood to mean 1 1-4, 1 1-2 by 4, 5, and 6 inches wide, 14 feet and up long. In addition to the above four classifications, we recommend the following shipments to European markets.

Sawn timber (A)—Sound, to show two-thirds heart from end to end on every face, from through or round shakes and unsound knots.

B—Sound, to show heart on every face; may have not exceeding 1 1-2 inches wane on a corner for the upper third of the stick.

C—Sound, not more than three inches wane on a corner, need not show heart on any face.

Prime Deals—Sound, square, case, two-thirds heart on the most sappy face, free of through or round shakes and large knots, nine (9) inches and up wide, 12 feet and up long, 3, 4, 5 and 6 inches thick.

Storage Deals—Sound, square edge, one-half heart on the sappiest face, free from through shakes or



splits, same width and thickness as Prime Deals, 10 feet and up long.

Mr. White submitted the following report from the Committee on Statistics, as to the amount of standing timber in the state of Pennsylvania; read and filed.

WILLIAMSPORT, Pa., Sept. 14, 1874.

To L. D. Wetmore, President of the National Association of Lumbermen.

SIR:—The undersigned, one of the Committee on Lumber Statistics, appointed by the National Association of Lumbermen convened at Williamsport, Pa., on the 24th and 25th days of June last, begs leave to report the following as the result of careful investigation of the quantity of standing white pine, hemlock and hardwood timber, east and west of the Alleghany Mountains, in the state of Pennsylvania, viz.: east of the Alleghany Mountains:

	Feet.
On Pine Creek and its branches.....	300,000,000
On Youngwoman's Creek.....	130,000,000
On Kettle Creek and its branches.....	75,000,000
On Cook's run.....	15,000,000
On Hunt's run.....	75,000,000
On First Fork of the Sinnamahoning and branches.....	56,000,000
On Bennett's branch of the Sinnamahoning and branches.....	300,000,000
On Anderson Creek and branches.....	150,000,000
On (Susquehanna) river and small branches.....	300,000,000
On Clearfield Creek and branches.....	100,000,000
On Moshannon Creek and branches.....	100,000,000
On Driftwood and branches, Sinnamahoning.....	50,000,000
On Musquito Creek, below Clearfield....	225,000,000
On Wyckoff run.....	50,000,000
On Baker and other runs—river.....	75,000,000
On Beech Creek, etc.....	50,000,000
Other small streams, add.....	545,000,000

Total on streams, east of Alleghany.....2,600,000,000  
 On streams, west of Alleghany.....1,000,000,000  
 Making a sum total of standing white pine, east and west of the Alleghany Mountains of three billion, six hundred millions.....3,600,000,000  
 Total amount of hemlock in Pennsylvania.....7,000,000,000  
 Total amount of hardwood in Pennsylvania fit for saw logs.....4,000,000,000

The above result has been made up from the best obtainable sources known to your committee and is respectfully submitted for your consideration.

GEORGE W. LENTZ.

Committee on Lumber Statistics.

The secretary submitted a commu-

nication from the Lumber Exchange of St. John, N. B., which was read and placed on file.

WEST BRANCH LUMBERMANS EXCHANGE }  
 F. E. Embick, Esq., Secretary. }  
 WILLIAMSPORT, Pa. }

Dear Sir:—Your favor of the 4th inst. is at hand. It has been laid before a meeting of our exchange, and the president was requested to attend, but as other business will prevent so long a journey at present, I can only congratulate you on the many evidences of provisional wisdom exhibited by the crop in all sections of the country in reducing the supply and withholding lumber from the already over-loaded markets.

The evil is fast curing itself in this section and it is probable that the operation in the woods the coming winter will not exceed 50 per cent. of last year. Inclosed find a report of committee now under discussion.

Respectfully Yours,

ANDRE CUSHING.

The committee on by-laws presented a report including proposed by-laws, which was received and laid on the table for further action.

The chairman of the committee on inspection submitted a preliminary report which was received and laid on the table for further action.

The chair then read the following telegram:

To the Chairman of the Lumberman's Convention:—The lumbermen of Wolf River and tributaries are in full sympathy and accord with the proposed object of your convention, and will pledge to cut only 50 per cent. of the timber the coming winter of the average of the last five years, if others will do the same.

P. SAWYER,

Chairman of Committee.

The committee on resolutions submitted their report, which was passed.

Resolved, That a committee of five

be appointed by the chair to revise the constitution by-laws of the association, and to report at eight o'clock this evening.

*Resolved*, That a committee of two from each state, represented at this convention, be appointed by the chair, whose duty shall be to report to the convention the names of persons suitable to act as officers of the association for the following year.

#### RECIPROCITY.

WHEREAS, The Canadian lumbermen hold large tracts of government land "limits" at low rates, and without risk of loss of standing timber by fire (as such losses fall upon the government) while we must buy lands, at much higher prices and incur the growing loss by fire, and

WHEREAS, Wages in Canada are lower than with us, and they pay no taxes to support our government, save duties on lumber, etc., sent to this country, and are almost exempt from taxes on their business at home, while we share the cost of supporting town and county, state and nation, and

WHEREAS, The lumber industry of the United States is of great importance, not only to owners of mills and timber, but to three hundred thousand men, employed at fair wages, and to our farmers, manufacturers and mechanics, to whom it opens a profitable and large home market; therefore

*Resolved*, That as the so-called reciprocity treaty, asked for by the British and Canadian officials, would grant men in another country our privileges, while they have no share of our burdens or risks, and thus discriminate in favor of strangers, as against those of our own household, and place our producers and consumers of lumber still more in the power of foreigners, ready to monopolize markets, and control prices for their own benefit and profit, we earnestly oppose it, as unjust and dangerous to the interests of our own

industry, and of the whole country.

*Resolved*, That the admission, duty free, of any article into the production of which American labor enters, while the articles on which that labor, in whole or in part, subsists, are subjected to a duty, in an oppressive and unjust discrimination against the labor, producing the articles so admitted free.

*Resolved*, That the secrecy with which said scheme was developed, and the introduction of said treaty for ratification by the senate so near the close of the session, makes it very apparent that its promoters hoped for the consummation of this iniquity before the vigilance of the people or their legislators awakened to the gravity of the case.

*Resolved*, That we regard with indignation, the mingled audacity and insolence displayed in said treaty in the request made by a foreign power, that our government, through its senate, should attempt to bind the future legislation of our country for twenty-five years, in the collection of its revenue, under the sacred obligation of a treaty.

*Resolved*, That said treaty, if ratified, would result in the paralysis of our industrial pursuits and interests, and a corresponding invigoration of those of British America, and that while a manufacturing empire would spring up all along the border, under the British flag, our workshops would be deserted, and our smokeless chimneys serve only as monuments of our folly.

#### SPECIAL COMMITTEE ON CONGRESSIONAL MEMORIAL.

*Resolved*, That a special congressional memorial committee of twelve persons, with power to increase its number to twenty, be chosen by this association to compile facts and statistics, and prepare statements and arguments based thereon, touching the lumber business of the United States and Canada and the effects of so-called "reciprocity" upon our bus-

iness and the general interest of our country, and to memorialize congress against the reciprocity treaty.

The following letter was read by the secretary :

*To the president and members of the Lumbermen's National Convention, East Saginaw, Mich.*

STILLWATER, MINN., Sept. 12, 1874.

Gentlemen:—At a state convention of the lumbermen of Minnesota, held at Minneapolis on the 4th inst. I was elected a delegate to your convention, but owing to subsequent business engagements shall be unable to attend. I desire, however, to give you my views in regard to the existing state of our lumber interests through this medium, fully recognizing the pressing necessity for some radical measure to improve the condition of the lumber business of the country.

I have been engaged in the log and lumber business on the St. Croix river and tributaries, in connection with the firm of Henry Staples & Co., during the past twenty years. The cut of logs during that time on one river, has been from one to two hundred million feet per annum, the average drive the past five years being nearly the latter amount (200,000,000) feet. The estimated amount of standing timber on the St. Croix and its tributaries, is in round numbers five thousand million feet, and, at the present rate of cutting, our pine forests will be depleted in twenty-five years. The prices obtained for the lumber product of our state have ruled low, and at times ruinous, consequently these logs and valuable tracts of pine timber, which should be a magnificent source of income in the future, are being rapidly destroyed without being fairly remunerative to the owner of the timber, or the lumbermen engaged in marketing the product. The supply having been much in the excess of the demand.

I trust measures will be adopted by your convention to remedy the

present depressed condition of the lumber interests, by reducing the log and lumber product, and such other measures as may be deemed best and expedient, pledging myself to fully cooperate with you in the attainment of the desired object, my interest being identical with your own.

I regard the passage of the so-called reciprocity treaty with Canada, as being disastrous to our entire American interest.

Regretting that I am unable to be with you on this important occasion, and trusting that the objects of the convention may be fully attained,

I remain yours, &c.,

ISAAC STAPLES.

The chair announced the following committee on amendments to articles of association and by-laws :

H. Savidge, of Michigan.

W. T. Price, of Wisconsin.

R. J. Forsman, of Pennsylvania.

L. Butler, of Minnesota.

J. A. Whittler, of Michigan.

A letter received from Hon. S. T. Hersey, M. C. from Maine, was then read.

The chair announced the following as the committee to recommend names for permanent officers of the association :

R. G. Horr and Newell Avery, of Michigan.

F. Coleman and P. B. Merrill, of Pennsylvania.

W. R. Sill and William Carson, of Wisconsin.

Geo. A. Camp and M. Mower, of Minnesota.

J. H. Pearson, of Illinois.

Mr. W. R. Burt, on behalf of the local committee, invited the association to an excursion on the river, which was accepted, and the conven-

tion adjourned until 7½ o'clock in the evening.

#### EVENING SESSION.

The association proceeded to appoint the congressional memorial committee, as provided in the resolution adopted at the morning session, as follows :

W. H. Armstrong, Williamsport, Pa.

Edgar Munson, Williamsport, Pa.

T. W. Palmer, Detroit, Mich.

Ezra Rust, Saginaw, Mich.

J. D. Ludden, St. Paul, Minn.

D. Morrison, Minneapolis, Minn.

D. J. Spaulding, Black River Falls, Wis.

O. H. Ingraham, Eau Claire, Wis.

T. W. Harvey, Chicago, Ill.

J. H. Pearson, Chicago, Ill.

C. K. Hawley, Baltimore, Md.

Henry James, Baltimore, Md.

The committee on resolutions reported the following substitute for the resolution adopted this morning, and reconsidered and recommitted to them. After discussion, the same was again passed as follows :

#### RESOLUTION REGULATING PRODUCTION.

WHEREAS, It is apparent that there is an over-stock of lumber now manufactured and on the market in the various sections of the country, which has reduced the prices so low that manufacturers have secured little or nothing for their timber standing in the forest, and also an unpromising outlook in the financial affairs of the country for the coming season, so that unless we can reduce the amount of lumber produced, disaster and ruin must result to the whole lumber trade : therefore

*Resolved*, That we hereby pledge ourselves, individually and as an association, to use all honorable means to bring the supply of that great

staple within the limits of a healthy business demand ; and to that end we do hereby agree to reduce the manufacture at our mills, the coming season, at least one third below the average amount manufactured the last two years, and that, as lumber manufacturers, we will try to make the importance of such limitation of the supply plain to all our brother lumbermen, so as to induce them to co-operate with us in securing this object : *Provided*, That the spirit and practice of this resolution shall be generally agreed to among lumbermen with whom we are brought into competition.

It was voted that, when the association adjourn, it be to meet at 9 o'clock to-morrow.

The following resolutions, offered by Mr. Bates, were referred to the committee on resolutions :

WHEREAS, In many localities, and in the lumbering region of Michigan, Wisconsin and Minnesota, the practice of discriminating in making assessments between resident and non-resident owners of lands exists, and

WHEREAS, The unequal assessment of property is unjust and illegal, and legal steps being taken this unjust taxation may be successfully resisted, and

WHEREAS, The fictitious values placed upon timbered lands by assessors generally, and the corresponding high rates of taxation frequently compel owners, in self defense, to prematurely cut their timber, and, having taken from their lands its principal value, to refuse to pay further taxes, thus depriving the state of legitimate revenue, therefore

*Resolved*, That the subject be placed before the legislatures of Michigan, Wisconsin and Minnesota, by the proper officers of this association, and that these bodies be urged to so legislate, at their approaching sessions, that these modes of assessment may be effectually prevented.



Mr. Durant from the committee on statistics made the following report on the estimates of pine timber standing in Minnesota, which was read and placed on file :

The standing white and yellow pine on the St. Louis river, Minnesota; upper Mississippi, in Minnesota; the St. Croix river and tributaries, embracing timber in the states of Minnesota and Wisconsin; the Chippewa river and tributaries; Black river and tributaries; Wisconsin and St. Louis rivers, emptying into Lake Superior is 2,000,000,000 feet. Outlet both from the waters of Lake Superior and by railways both north and south, the upper Mississippi and tributaries above the falls of St. Anthony. This lumber filled 4,000,000,000 feet market west of the Mississippi.

St. Croix river and tributaries, including within its scope timber in the states of Minnesota and Wisconsin, contain 5,000,000,000 feet, the market for this timber being by way of the St. Croix river to Stillwater, and distributed from thence via the Mississippi south and southwest, and by rail from Stillwater to points south and west.

In connection with the St. Croix timber it may be proper to state the amount of lumber cut on the St. Croix and tributaries during the past eighteen years foots up 1,718,000,000 feet, being at the ratio of 100,000,000 per annum. Taking the past as a basis of calculation we may estimate that lumbering on the St. Croix and tributaries will continue for many years yet.

On Black river and its tributary streams it is estimated that there is of standing pine timber, white pine mostly, 2,000,000,000 feet. The outlet to market being down the Black river to the various distributing points on the Mississippi river.

The Chippewa river and its tributaries take their rise in the midst of

and traverse through immense bodies of magnificent pine timber. From the most reliable data it is estimated there is now standing on its banks and accessible by water 8,000,000,000 feet of pine timber.

This lumber finds an outlet via the Chippewa and Mississippi rivers and is marketed along the Mississippi from the mouth of the Chippewa to the distributing points on the Mississippi river above New Orleans.

This lumber is sold largely for shipment from such points by rail to the interior of the states of Iowa, Missouri, Kansas, and Nebraska.

We find that we have, of standing pine timber within the area named, 21,000,000 feet of growing timber. On the Wisconsin river, the natural outlet of which is via the Wisconsin and Mississippi rivers, I have been unable to obtain any estimates. The annual shipments from this river will average about 75,000,000 feet.

The sales during the past year, of lumber cut on the Mississippi and tributaries above St. Louis, Mo., was 1,033,163,628; of this amount 75,000,000 feet was cut on the Wisconsin river, excluding the Wisconsin river pine timber; and providing the timber cut for the next twenty years should be in the same ratio during the past few years the supply of pine timber on the district mentioned will be exhausted within twenty years.

E. W. DURANT.

Member Committee on Statistics.  
On motion, adjourned.

#### THURSDAY'S SESSION.

The association assembled at 9 a. m. and was called to order by the vice president, Mr. Thorpe. The secretary read the minutes to the adjournment yesterday noon, and they were corrected and approved.

Mr. Durant offered the following resolution :

*Resolved*, That in order to fully accomplish the aims of this association,

and to facilitate carrying out the objects of its organization, it is necessary to organize and maintain in each lumber manufacturing district, a lumbermen's association, for the purpose of securing unity of action upon all questions, now or hereafter affecting our general interests, and which shall be auxiliary to this association; and we recommend that members of this association, from each locality, take immediate steps looking toward forming such local associations.

Mr. T. W. Palmer, of Michigan, offered the following, which was adopted:

WHEREAS, It is the opinion of this convention that the rates of premiums on saw mills made on the basis of data collected before lumbering had assumed its present magnitude, and the ratings of mills is crude, and grossly unjust, and

WHEREAS, Fire risks on mills at the time are greatly affected by moral conditions, now therefore be it

*Resolved*, That we recommend to insurers that in taking of risks on mills, and in the fixing of rates, due weight should be given to adjacent exposure to construction of mill, means of preventing fire and its extinguishment, moral character of applicant, his, or their manner of doing business, *i. e.*, as to whether it be careful and conservative or speculative and reckless, and former reputation.

*Resolved*, That the secretary be directed to forward a copy of the above resolutions to the national board of underwriters.

On motion of Mr. Gaskill, of Pa., it was voted that John S. Estabrook, of East Saginaw, Mich., be added to the congressional memorial committee.

The committee on resolutions reported back the resolution offered by Mr. Bates, yesterday, and recom-

mended that as the subject was impracticable, it be laid on the table.

Hon. T. W. Ferry, United States senator from Michigan, was introduced to the association and addressed it at some length upon the subjects before the association, and the general lumber interests of the country.

Mr. Estabrook tendered an invitation of the state agricultural society.

The committee on constitution submitted their report, which was taken up and adopted by sections, as follows:

#### PREAMBLE.

WHEREAS, The manufacture of lumber constitutes an important branch of the national industry, largely involving the labor and capital of the country; and

WHEREAS, Its future growth and permanent success require greater co-operation the part of those engaged in it, than has heretofore existed;

*Therefore*, We the subscribers, for the purpose of promoting more effectually, by all the appropriate means, the advancement and prosperity of the lumber interest, agree to associate ourselves together, and establish the following

#### CONSTITUTION.

##### ARTICLE I.

The title of this association shall be the National Association of Lumbermen.

##### ARTICLE—MEMBERS AND THEIR ELECTION.

1. Any person engaged in the manufacture of lumber or timber, or who may be the owner of timber lands, may become a member of the association by subscribing to the constitution and paying an initiation fee of ten (\$10) dollars.

2. Any member who shall have paid his assessments in full may withdraw his membership by giving a written notice thereof to the secretary.

3. Any member who shall refuse to pay his assessments, or who shall violate the rules and regulations of the association, may be suspended or expelled by a vote of the majority of the members present at a regular meeting.

##### ARTICLE III—OFFICERS.

The officers of the association shall

consist of a president, vice-president, a secretary, corresponding secretary, a treasurer and nine directors.

The president, recording and corresponding secretaries shall be *ex-officio* members of the board of directors.

#### ARTICLE IV.

The directors shall have power to hold meetings at such times and places as they may think proper; to appoint committees on particular subjects, from members of the board of directors or from other members of the association; to print and circulate documents; to publish the articles in the newspapers; to carry on correspondence, and otherwise communicate with other associations interested in the manufacture of lumber, to employ agents if necessary, and to devise and carry into execution such other measures as they may deem proper and expedient to promote the objects of the association.

#### ARTICLE V—ELECTION OF OFFICERS.

The officers of the association shall be elected annually, by ballot, at the annual meetings, and they shall continue in office for the term of one year, or until their successors are elected and qualified to take their places.

#### ARTICLE VI—MEETINGS OF THE ASSOCIATION.

1. There shall be an annual meeting of the association for the choice of officers, and the transaction of other business, on the first Tuesday in September, at such place as may be designated at the last annual meeting.

2. Special meeting may be called by the board of directors upon the written application of four members each from any four of the states represented in the association, and give at least twenty days' notice thereof. It shall require twenty members present at any meeting to constitute a quorum; and in case of there not being a quorum, the meeting may be adjourned from time to time by the members present.

#### ARTICLE VII—DUTY OF OFFICERS.

1. It shall be the duty of the president, or, in his absence, of one of the vice-presidents, to preside at all the meetings of the association.

2. The treasurer shall keep an account of all moneys received and expended for the use of the association, and shall make disbursements only upon vouchers ap-

proved in writing by the secretary, and any member of the committee on finance. When his term of office expires, he shall deliver over to his successor all books, moneys and other property; or, in the absence of the treasurer elect, the same shall be delivered to the president.

3. It shall be the duty of the secretary to give notice, of, and attend all meetings of the association, and of the board of directors; to keep a record of their doings; to carry into execution all orders, votes not otherwise committed; to keep a list of the members of the association, collect the assessments, and pay them over to the treasurer, to prepare, under the direction of the board of directors, an annual report of the transactions and condition of the association, and generally to devote his best efforts to forwarding the business, and advancing the interests of the association.

4. It shall be the duty of the corresponding secretary to assist the secretary in all the above mentioned duties, but especially to conduct all the correspondence; to notify officers and members of the association of their election; to notify members of their appointment on committees, furnish the chairman of each committee with a copy of the vote under which the company is appointed, and, at his request, give notice of the meetings of the committee, and generally to perform such other work as the board of directors of the association may, from time to time direct him to do.

#### ARTICLE VIII—STANDING COMMITTEES.

1. There shall be four standing committees, to be appointed by the board of directors, as follows, to wit: A committee of five on finance, a committee of nine on statistics, a committee of five on inspection, and a committee of nine to devise means for regulating the supply of lumber in accordance with the demand, each committee to act under the direction of the board of directors.

2. The committee on finance shall have the general superintendence of all matters of finance connected with the association, and one or other of the members thereof shall give his written approval to all vouchers of expenditure in order to secure their payment by the treasurer.

3. The committee on statistics shall inquire after and collect statistical information relating to the manufacture of lumber, especially such as will tend to show the progress of its various

branches both at home and abroad, and report the same to the board of directors of the association.

4. The committee on inspection shall have charge over and recommend rules for the uniform inspection, measurement and classification of lumber, and shall report annually at the regular meeting of the association the progress that is being made in this direction.

5. The committee to devise means for regulating the supply of lumber in accordance with the demand, shall inquire into and procure statistics covering the production and consumption of lumber in the United States and Canada, and collect such other valuable statistical information as will tend to regulate properly the law of supply and demand, and report the same annually at the regular meeting of the association.

#### ARTICLE IX.

The board of directors of the association shall be authorized to make by-laws for the orderly conduct of its own business and meetings, and for the furtherance of the interests confided to its care.

#### ARTICLE X.

These articles may be amended or repealed by a vote of two-thirds of the members present at any duly organized meeting of the association.

#### ARTICLE XI.

There shall be appointed at each annual meeting of the association a committee of one in each of the lumber districts in Michigan, Wisconsin and Minnesota and also for the Alleghany river and its tributaries, and one for the Susquehanna river and its tributaries, and one for the Mississippi river from St. Louis to Dubuque, and for each of the lumber producing states of the south, whose duty it shall be to procure the names to our constitution and by-laws of all persons in their districts, eligible to membership, to forward the initiation fee to the treasurer, the names to the recording secretary, and the names of all the lumbermen in their respective districts who decline to become members.

#### ARTICLE XII.

It shall be the duty of the corresponding secretary from time to time and frequently, to furnish to each member of the association a complete list of the members, and also a list of persons eligible to mem-

bership who have declined to co-operate with us.

The following, offered by Mr. Price, was adopted :

*Resolved*, That the agents, appointed under Article 11, are hereby authorized to take notes or due bills for the initiation fee of any person desiring membership, when he deems it advisable to do so.

Mr. Ring, of Mich., moved, to amend the articles so as to provide that membership should be limited to lumbermen of good moral and business character, which was not adopted.

The president of the association introduced Hon. J. J. Bagley, governor of Michigan, who briefly addressed the association.

The committee on permanent officers reported the following names :

President—J. G. Thorpe, Eau Claire, Wis.

First Vice President—D. M. Peck, Williamsport, Pa.

Second Vice President—T. W. Palmer, Detroit, Mich.

Third Vice President—Thad. C. Pound, Chippewa Falls, Wis.

Fourth Vice President—Gov. W. D. Washburn, Minneapolis, Minn.

Fifth Vice President—Jacob Beidler, Chicago, Ill.

Recording Secretary—Henry S. Dow, Bay City, Mich.

Corresponding Secretary—J. Henry Symonds, Boston, Mass.

Treasurer—Roswell G. Horr, East Saginaw, Mich.

Board of Directors—R. K. Hawley, Md.; J. H. Pearson, Chicago, Ill.; Newell Avery, Detroit, Mich.; Isaac Stables, Stillwater, Minn.; W. T. Price, Black River Falls, Wis.; Henry White, Williamsport, Penn.; W. J. Young, Clinton, Iowa; John S. Estabrook, East Saginaw, Mich.; Hunter Savidge, Spring Lake, Mich.



On motion, the convention proceeded to the election of officers, the secretary being authorized to cast the unanimous ballot of the association for the several nominees.

The secretary announced the result of the ballot, the several persons named above being declared unanimously chosen.

The president elect, Mr. Thorpe, addressed the association, congratulating it on the harmony and successful issue of the business of the association, and with thanks for courtesies extended, and accepting the position assigned him.

Mr. Merrill, of Pa., offered the following :

*Resolved*, That the thanks of this association be extended to the Saginaw Lumber Association for the use of their rooms, and to the lumbermen of the Saginaw valley for the courtesy and kindness extended to us during our visit to East Saginaw.

Mr. Forsman, of Pa., moved that the next annual meeting of the association be held at the city of Chicago, which was adopted.

On motion of Mr. Forsman, of Pa., three thousand copies of the report of the meetings were ordered printed, at Williamsport and East Saginaw, under the direction of the secretaries.

Mr. Peck moved that the secretaries be instructed to send to each member ten copies, and ten additional copies to members of the committee, and that the rest be mailed to prominent lumbermen of the country.

Agents to obtain lists of canvassers to secure additional members, were appointed as follows :

#### MINNESOTA.

First District—E. S. Brown, Stillwater.

Second District—J. A. Lovejoy, Minneapolis.

Third District—W. H. Laird, Wenona.

#### PENNSYLVANIA.

R. M. Forsman, Williamsport.

G. W. Lentz, Lock Haven.

A. L. Wetmore, Warren.

#### WISCONSIN.

S. L. Nevins, La Crosse.

H. C. Putnam, Eau Claire.

A. E. Pound, Chippewa Falls.

Alex. Kempt, Eau Claire.

Erick McArthur, Oshkosh.

G. W. Denning, Eau Claire.

#### MICHIGAN.

Neil Leitch, Manistee, &c.

D. L. Filer, Luddington, &c.

R. P. Easton Muskegon, &c.

S. H. Boyce, Grand Haven.

J. H. Wonderly, Grand Rapids, &c.

C. N. Avery, Alpena, &c.

H. Loud, Au Sable.

J. J. Wicks, Tawas.

J. J. Fitzgerald, Saginaw.

H. Howard, Port Huron.

T. W. Palmer, Detroit.

Mr. Price, of Wisconsin, offered the following :

*Resolved*, That should the convention fail to appoint a canvasser, or having designated any canvasser in any district, and a vacancy shall occur from any cause, it shall be the duty of the board of directors to fill such vacancy.

*Resolved*, That it shall be the duty of the several canvassers to report at the earliest possible moment, and not later than the 15th of October, the result of their labors; and it shall be the duty of the secretary to report the result to the members of the association on receipt of the same, and that a copy of this resolution be sent by the secretary to each of the canvassers.

Adopted.

Mr. Ludden, of Minnesota, offered the following :

*Resolved*, That in view of the recognition of this convention by the governor of

Michigan, by becoming a member of the same, that we instruct the canvassing agents of each state represented in this convention, to solicit their governor to follow the example of Governor Bagley, and become members of our association.

Adopted.

The thanks of the association, on motion of Mr. Camp, were unanimously tendered to the president, and, on motion of Mr. Ingraham, to Col. C. V. DeLand for his services and attention as secretary during the meeting of the association.

Mr. Estabrook tendered the freedom of the state fair grounds, by the direction of its officers, and the same were accepted and the society duly thanked therefor.

On motion the association adjourned.

#### MEETING OF THE DIRECTORS.

Immediately after the adjournment of the association a meeting of the board of directors was held.

Mr. White moved that a committee of five, consisting of Newell Avery, J. H. Pearson, H. S. Dow, W. T. Price and John F. Brown, of Stillwater, be appointed to execute the provisions of Article 4, of the constitution, and the resolution of Mr. Price in regard to filling vacancies in the list of canvassers—which motion was adopted.

The following committee were then appointed:

Finance—Ezra Rust, of Saginaw; L. Butler, of Minneapolis; C. Davis, of Muskegon; J. H. Pearson, of Chicago, Henry White, of Williamsport, Pa.

Statistics—H. S. Dow, Bay City, Mich.; J. H. Symonds, Mass.; E. W. Durant, Stillwater, Minn.; George W. Lentz, Williamsport, Pa.; Giles B. Stebbins, Detroit, Mich.; H. H. Colquitt, Savannah,

Ga.; J. G. Thorpe, Eau Claire, Wis.; John D. Gardiner, Chicago; Mial Davis, Burlington, Vt.

Inspection—Thomas P. Merrill, Williamsport, Pa.; John S. Estabrook, East Saginaw; Wm. Knight, of St. Paul, Minn.; W. R. Sill, La Crosse, Wis.; A. G. Van Schaick, Chicago.

Regulating Supply—R. K. Hawley, Baltimore, Md.; J. H. Pearson, Chicago; N. Avery, Detroit; Isaac Staples, Stillwater, Minn.; W. T. Price, Black River, Wis.; H. White, Williamsport; W. J. Young, and John S. Estabrook, East Saginaw; H. Savidge, Spring Lake, Mich., and the president and two secretaries *ex-officio*.

Mr. Price moved that the board of directors see to it that all vacancies in the board of canvassers are promptly filled, and that all members of the board not present be notified of the action. Carried.

On motion of Mr. Pearson, of Chicago, it was voted that meetings of the board may be called by the secretary on the order of the president.

After which the board adjourned.

#### A MARVEL IN SAWING.

A very interesting trial of speed took place in the presence of a large crowd of spectators yesterday afternoon. Among the articles on exhibition was one of Boynton's Patent Lightning Cross Cut Saws. This saw has been praised in strong terms by such leading agricultural journals as the *American Agriculturist*, and has taken the first premium at a large number of fairs. The patentee and sole proprietor, who was present, Mr. E. M. Boynton, of New York, was very anxious that the merits of his saw should be fairly tested, and Mr. Eby, the president of the fair, Messrs. W. B. Lawson, S. S. Hoagland and other officers attended to witness the trial. The peculiarity of this saw,

we may premise, is the conformation of the tooth, the edge of which is doubled, and perforates the wood continuously, or cuts both ways equally as drawn back and forth in cutting. Mr. Eby and other gentlemen present tested the saw, and succeeded easily in cutting hard oak at the rate of a cord in fifteen minutes by the use of a hand cross-cut saw, but the crowning feat, and one unparalleled in the annals of hand sawing, was the sawing, by two men by hand, of a sound sixteen-inch oak log in seventeen seconds, a rate of speed equal to the sawing of a cord of wood in five minutes, if continuous work. This astonishing feat was accomplished in the presence of several hundred spectators, and the section of the log can be seen by any one interested at Noble's hardware store. This is the latest improvement in the Lightning Saw, with which in a trial before the late Major-General Meade and the Fairmount board, a foot log was sawn in eight seconds several years ago. Its distinguishing features, as we have said, is the double vertical M shaped tooth, with its points dressed to cut in line, cutting and clearing in each direction with its vertical edges, doubling the sawing. These saws, we may state, are sold by all our local hardware dealers.—*Boston (Pa.) Morning Dispatch.*

#### THE CALIFORNIA WOOD RAT.

In a recent number of the *American Journal* is an abstract from a letter from Captain A. W. Chase, of the U. S. Coast Survey, concerning the habits of the so-called California wood rat. It is a little larger than an ordinary Norway rat, dark brown in color, with large lustrous eyes, and a tail covered with thin hairs. I should call it intermediate between the squirrel and rat. This creature builds its nest in the woods, sometimes on the ground, more frequently in the lower branches of trees. They accumulate a surprising quan-

tity of dry twigs, which they interlace to form a dome shaped structure often 10 or 12 feet high and 6 or 8 feet in diameter.

Openings in the mass lead to the centre, where is found the nest, consisting of the finely divided inner bark of trees, dried grass, etc. But it is to the thievish propensity of the little creature that I wish to call attention. To make my story intelligible, I would state that I am partial owner of some property on the Oregon coast, on which a saw-mill had been placed, but which, owing to various causes, has never been in operation: On this property was a dwelling house for the hands, in which on work being discontinued, were stored a quantity of stuff, tools, packing for the engine, six or seven kegs of spikes; in the closets, knives, forks, spoons, etc. A large cooking-stove was left in one of the rooms.

This house was left uninhabited for two years, and, being at some distance from the little settlement, it was frequently broken into by tramps who sought a shelter for the night. When I entered this house I was astonished to see an immense rat's nest on the empty stove. On examining this nest, which was about five feet in height and occupied the whole top of the stove (a large range), I found the outside to be composed entirely of spikes, all laid with symmetry so as to present the points of the nails outward. In the centre of this mass was the nest, composed of finely divided fibres of hemp packing. Interlaced with the spikes, we found the following: About three dozen knives, forks and spoons, all the butcher knives, three in number, a large carving knife, fork and steel; several large plugs of tobacco; the outside casing of a silver watch was disposed of in one part of the pile, the glass of the same watch in another, and the works in still another; an old purse containing some silver, matches and tobacco; nearly all the small tools from the tool chests,

among them several large augers. Altogether, it was a very curious mixture of different articles, all of which must have been transported some distance, as they were originally stored in different parts of the house.

The ingenuity and skill displayed in the construction of this nest and the curious taste for articles of iron, many of them heavy, for component parts, struck me with surprise. The articles of value were, I think, stolen from the men who had broken into the house for temporary lodging. I have preserved a sketch of this iron-clad nest, which I think unique in natural history. Many curious facts have since been related to me, concerning the habits of this little creature. A miner told me the following: He once, during the mining excitement in Siskyou county, became in California parlance "dead broke," and applied for and obtained employment in a mining camp, where the owners, hands and all slept in the same cabin. Shortly after his arrival small articles commenced to disappear; if a whole plug of tobacco was left on the table, it would be gone in the morning. Finally a bag containing one hundred dollars or more in gold dust, was taken from a small table at the head of a "bunk" in which one of the proprietors of the claim slept. Suspicion fell on the new comer, and he would have perhaps fared hardly, for, with those rough miners, punishment is short and sharp; but, just in time, a large rat's nest was discovered in the garret of the cabin, and in it was found the missing money, as was as the tobacco and other articles supposed to have been stolen.

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Persons desiring to purchase saw-mill property should correspond with J. C. Clarke, of Wausau, Wis. Mr. Clarke desires to sell one of the best properties of its kind in the country, and offers a rare bargain.

#### TIMBER IN KENTUCKY.

The Licking River Lumber Company have recently issued a pamphlet from which we extract the following remarks on the timber of Kentucky:

It will be interesting to sketch, in a brief manner, the varieties of timber most common on the Licking River. Probably no tract of timber land exists in the United States equal in extent to this, on which is produced so large a proportion of valuable woods. A peculiarity of these forests is, that they grow in deep, rich, strong soils—no swamp-growth, but sound solid, close-grained and perfect. Each variety seems here to reach the perfection of its growth. Much of it is due, in addition to the fine soil, to the climate. Long summers, inducing long periods of growth, are favorable to large and perfect trees. Many of these monarchs of the forest are 250 to 300 years old, and their tall, well-formed trunks testify to lavish supplies from nature's storehouses. But little under-brush is found in the forests, and the ground is dry and firm, so that in most places a four-horse coach could be driven through the timber lands with the greatest of ease.

White oak, of a superior quality, fully equaling the pasture oaks of New England, and resembling the solid oaks of Africa and England, constitutes the principal growth. These oaks grow to an immense size and length. Trees are numerous that will furnish ship's keels 65 to 80 feet long, and of the largest size required. Single trees may be found that would produce eight to ten ton's of the finest ship timber. Here white oaks are growing of sufficient size to make the keels, stems and stern-posts of the largest frigates. This oak is of superior quality for wine pipe staves, which would command the highest price, since it is impossible to trace any pores in the



wood. It is also highly prized among car builders and agricultural implement makers. Ninety per cent. of all the oak in this country is white oak, and at least forty per cent. of the entire growth of this timber belt is oak. Chestnut oak is found in considerable quantities. Its bark commands, for tanning purposes, twice the price of white oak bark, and the peculiar grain of this variety of wood commends it to the attention of furniture manufacturers. Black and red oaks are very scattering.

Whitewood, or yellow poplar, as called in the west, is perhaps, next to the white oak, the most abundant growth. These trees grow to an immense size, frequently reaching an altitude of eighty and ninety feet to a limb, and a diameter of three and four feet, and many specimens even six and seven feet. The poplar of this section is very sound and clear, free from stains, and of the rich color so much prized by consumers. It can be furnished of any width, length or thickness.

Black walnut is found in small groves and clumps, and of a very large and superior quality. It is not nearly so abundant as the above-named woods, yet in the fourteen hundred miles of main river and branches, many millions of feet of this valuable cabinet wood may be found. It is especially free from defects and possesses a dark, rich color, and beautiful figure. Chestnut grows abundantly in many parts of the territory, and is of good size, and thrifty, sound growth. Hickory. The white hickory of the Licking River is famous for its quality. For carriage-work it has no superior in this country. It does not grow to large size, but in the aggregate is very abundant, and this land produces no more valuable wood, either for domestic use or foreign export. White ash is found in large quantities, of a superior soundness, and

remarkable for the beauty of its curl and grain. The extensive use of ash in furniture and finishing gives this wood an important position.

Yellow pine, quite plenty, large and clear; much esteemed for local trade in flooring. White pine. Many beautiful, old-growth pine-trees at heads of ravines, though the country is not a pine country. Its strong soil better fits it for growing the hard woods. Red cedar is very plentiful of moderate size. Locust and cherry are not so abundant as some of the other woods, yet large quantities in the aggregate, and of excellent quality. Hemlock, called spruce pine in the local trade, is of remarkable soundness, and almost as white as pine. It is far better wood than eastern hemlock.

Beech of an extraordinary fine growth, large and straight. Elm, both of the common variety, as also slippery elm. Sycamore in large supply, used in manufacture of cigar boxes. Linn, or basswood, for which there is a local demand. Rock maple, or sugar maple, a valuable variety. Buckeye, a variety, so desirable for wooden trays, bowls,—a wood that does not check or split. Cucumber, used for pumps, aqueducts, &c. Dogwood, gum and other woods exist in moderate quantities.

We do not find any spruce or fir, so common in Maine and Canada, and the entire collection of woods so abundant here is of a valuable character.

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A new daily paper, *The Milwaukee Daily Advertiser*, has made its appearance in Milwaukee. The editor-in-chief is Mr. A. M. Thompson, long and favorably known as one of the leading journalists of the state. Mr. Thompson is ably assisted in the general management by W. C. Catler, a ready writer and a thoroughly informed business man.

## ORGANIZATION AMONG LUMBERMEN.

"E. R. L." in recent numbers of the Eau Claire *Free Press* furnishes arguments and facts relative to organization among lumbermen which will be read with interest by the readers of THE WISCONSIN LUMBERMAN.

The depression in the lumber trade this season has proved greater, thus far, than even the most inveterate croakers predicted, and it bids fair to hold its own to the close. Manufacturers will make no money this year. Some of the largest and best managed concerns, those who are able to take every advantage that the control of large means gives, may perhaps get through without loss—not so with the more numerous class whose capital is limited. Nor are there any present indications that the season of 1875 will show much improvement. A total or partial loss of crops in much of the territory where our lumber finds an ultimate market—the low prices of wheat which rule, and the general stagnation of business, promise anything but flush times.

Of course the manufacture of lumber with no margin, or a minus one, cannot be continued indefinitely even if the owners of pine timber were willing to go on butchering it without any adequate return.

This condition of things can have but one sequence and that is inevitable. The production must and will be checked until supply and demand are once more brought into their proper relations. The evil is sure to be righted, and it can be righted in no other way. The cut of the mills must be reduced. The only voice or option the mill-owner speaking of the class, will have in the matter is as to the method in which the corrective shall be applied. He cannot choose but accept it with good grace, anticipate, discount it so to speak, so that it may limit his losses, or, perhaps with adroit management, con-

tribute to his gains; or will he oppose it with senseless pluck until the inexorable laws of supply and demand drive all but the most enduring into the bankrupt courts?

It may seem superfluous to dwell upon these facts so widely are they being discussed on all hands, but no effort however lame to arrive at definite conclusions will be valueless, for though much is being said, the discussion usually ends in an aimless and unsatisfactory way. The folly of over-production is roundly denounced, the desirability of co-operation with a view to limiting it conceded. "There ought to be," we are told, "an organization to control this matter; but"—and here is where the head-wagging comes in—"it can't be done!" You can't form an organization with cohesion and power enough to carry out its resolutions, or the members of which will act in good faith with each other," or words to that effect. This is a humiliating confession, one which we should be slow to make. It is easy to see that there are difficulties in the way of an effort of this sort, that they are insurmountable should not be conceded at least until a trial has been made. To admit it is equivalent to saying that the community has advanced no farther than to a state of semi-barbarism.

One of the chief differences between savage and civilized man is the degree of self-denial they are relatively capable of, the ability to control present gratification for future good, the possession of forethought in short. The savage is without it; the morrow is dimly felt; the limit of his horizon is but a few days off; while, in a state of civilization a powerful feeling of the future is the main incentive to industry and saving. Man comes to learn that present forbearance is the most fruitful source of ultimate gain.

The promptings of self-interest give a wonderful stimulus to the facilities of even the most uneduca-

ted ; and for ourselves we do not intend to put such an insult upon the understanding of the manufacturers of lumber, as to assume that they are incapable of setting upon the dictates of an enlightened self-interest. The career of those of them whom we know precludes such an assumption.

Organization, by manufacturing and other interests and by trades, is one of the most marked characteristics of modern civilization. We might go further and say that it is one of the necessities of the age.

Organized co-operation regulating various details of supply and demand may be seen on all sides, and while there are, of course, some failures there are more successful efforts.

When we see the ignorant and improvident workmen of England co-operating successfully to regulate prices of labor—their commodity—it is folly to talk about the impracticability of forming here, among men of exceptional intelligence and energy, an organization looking to similar ends.

It is true that the subject has been agitated in a vague sort of a way for some time, without anything being done. None seemed ready to take the initiative. Perhaps a sufficient incentive was lacking.

A saturated solution will remain liquid indefinitely if kept in a state of rest ; but let it get a sudden jar and instantly the salts fly into crystals.

The feeling in favor of organization among lumbermen has been in solution a good while. It would seem that this season's operations was enough of a rap to crystalize it into action.

Let whatever compact is agreed upon be entered into earnestly and lived up to rigorously by every honorable man in the business and there will be a moral pressure brought to bear upon the slippery ones that they will find hard to resist—a weight of reprobation that they could not well stand up under.

There is such a thing as compulsion by public opinion and although it cannot be expected that it would wholly prevent trickery, it still does not seem too much to hope that it would exercise sufficient influence to make an attempt at control by organization, virtually successful. Just what action should be taken it is not so easy to say, but the attempt will be made to get into a little closer quarters with the subject in a future issue. E. R. L.

In a former article the subject of organization was discussed in a general way and the belief expressed that it was not only desirable but practicable. It is now proposed to essay the more difficult task of examining some of the objects that are sought to be gained. As being first in importance in this connection, will be considered, the control of the amount produced with a view to regulating prices.

It is, of course, absurd to suppose for a moment that any attempt to corner the lumber market or to bull it to an exorbitant figure would succeed. All that is wanted is to regulate the supply until it commands a price that, without oppressing the consumer, shall afford to the manufacturer a decent profit and to the pine land owner a reasonable price for stumpage.

One reason why this matter of control looks so formidable to many is because of their extravagant ideas as to the extent of the reduction that is necessary in order to produce the desired results.

Fifty per cent. appears to be the favorite figure, though some would be willing to compromise on thirty-three. Resolutions have been passed at various lumbermen's meetings recommending a reduction of one-half or two-thirds, while Mr. A. H. Campbell, chairman of the committee to draft a constitution at the Ottawa Convention seriously suggested that

even three-fourths would not be too much.

The propositions are not based upon any reliable data, and there are reasons to believe that the least of these figures of curtailment is excessive. The lower they can be made and accomplish the result, the more likely are they to be adopted and carried out in good faith.

The questions of variations of price as effected by variations of quantity is one of political economy and has been discussed and tested by statistics for two hundred years and more.

Attention is invited to a brief examination of some of the conclusions that have been reached. A moments reflection will satisfy any one that the price of a necessary commodity must vary far more rapidly than in the inverse ratio of the quantity.

Take for example, a variation in the supply of grain. Let it be deficient by one-third in its usual amount and this will create a much greater addition than of one-third to the price of it. The price of wheat in England has risen from 100 to 200 per cent. and upwards when the utmost computed deficiency of the crops has not been more than between one-sixth and one-third below an average, and when that deficiency has been relieved by foreign supplies. Tooke in his History of Prices says, "If there should be a deficiency of the crops amounting to one-third, without a surplus from a former year and without any chance of relief by importation, the price might rise five, six, or even ten-fold."

It is estimated that in 1795 and 1796 the farmers of England gained \$35,000,000, by a deficiency of one-eighth part of the wheat crop not including the considerable profit on the rise of prices of other agricultural produce. In each of the years 1799 and 1800 again farmers probably gained \$55,000,000, by deficiency. —If the price varied inversely as the

quantity they would neither gain nor lose.

From this it is obvious that a short supply of a commodity may result in large gains to the producers thereof, and that at the present juncture a little "masterly inactivity" on the part of lumbermen might be far more profitable than undiminished energy.

Of course the more nearly indispensable an article is, the more powerfully would its price be affected by variation in quantity. A deficiency in an article of luxury or one for which another can be readily substituted would occasion a rise of price, but not to any great extent, because there would at once be a substitution or reduction in the amount consumed; whereas with a large shortage in the food supply the price would become infinite before the quantity became zero, because famine would be impending.

From the collated observations tables have been constructed showing the variations in the case of grain, and Prof. Jevons gives a formula based on these which seems to produce results agreeing with experience and which are probably not far from the truth.

Applying his formula, after making a liberal allowance for the fact that lumber, although it is a necessity, is one the consumption which could be more largely reduced by substitution and otherwise than that of wheat, we have the following results: Assuming that with a cut equal to that of the present season, the average price at river towns would be, say, \$12 per thousand then, if the

Defect in supply be	The price will be
10 per cent.	\$15.40
15 do	17.55
20 do	20.15
25 do	23.55
30 do	27.74
35 do	33.20

These figures are, of course, but approximate, perhaps rudely so, but they doubtless do give a tolerably correct idea of the relative value of



the changes that would be effected by the various degrees of diminution in supply, and in the total absence of any data bearing directly upon the subject, are perhaps, as reliable as any aid we are likely to get in forming estimates of what is needed and that a reduction of 15 per cent. in the actual supply would probably be ample. But, large stocks are likely to be held over, and there may be a still further falling off in the demand, so that it might require a diminution of 20 per cent., or possibly 25 per cent. in the amount manufactured in order to cause the needed lesser shrinkage in the actual supply. It may be that a reduction of one-third would be none too much. Only two things should be kept in mind; the difficulty of getting a unanimous and willing assent and an honest adherence to so large a reduction, and secondly the distressing reaction which would be certain to follow too great a stimulation of prices.

The manner of carrying into execution any regulations, as to the amount to be manufactured, is something which will doubtless receive due attention at the meeting of the National Association of Lumbermen at East Saginaw, September 15th, and it may safely be left in the hands of the able practical men who will there assemble. Still a suggestion or two will be ventured here.

In the first place, of course, an effort should be made to keep within prescribed limits the number of logs put in. Manufacturers will have no difficulty in doing this, so far as their own operations go, and may control to a considerable extent the loggers whom they supply. But, for reasons that will be obvious to any one at all familiar with the business, the chief reliance must be, the check upon the amount sawed. What is the best manner of limiting this?

To regulate the cut by regulating the time of running, would seem to be in some respects preferable to at-

tempting to reduce by a percentage, the average produce of the numerous mills. Theoretically more rude, it would practically lead to more exact results because, under it, agreements could not be so easily evaded. Breaches of compact would readily be detected, and that without any prying or meddlesome interference into the details of a man's business, a thing which is always annoying and offensive.

The sawing season lasts on an average about six months, that is from May 1st, to November 1st, or 184 days gross. From this deduct 26 Sundays, July 4th, and, say 7 days for circuses, breakdown-stoppages, etc., and we have 150 working days of 12 hours each—saying nothing of night-running—making an aggregate of 1,800 hours work.

Assuming that 25 per cent. be the reduction decided on, there are several ways of accomplishing it, each of which has its advantages and its objections.

The season could be cut short, say from May 20th, to Oct. 20th, and the hours reduced from 12 to 11 per day, this would make a reduction of nearly 25 per cent.

To take most of this proposed reduction of time from the beginning of the season, would seem on some accounts to be desirable.

First. Because the longer the lumber is held back in the spring, the greater likelihood will there be of the advance, if any, coming early, thus giving the manufacturer the benefit of it on a larger proportion of the season's work. Second, the time in the fall when the pecuniary temptation might prove too strong for weakened resolutions, inducing men to violate pledges, would be reduced to a minimum.

But, as offsets are the weighty considerations; that, men coming from the woods would be unable or unwilling to lie idle so long and would scatter and be out of reach when the mills were ready to start up—that

the first month of the season is the one when lumber can be most cheaply transported—that it is desirable to get the lumber into the yards at the earliest moment so that it may season for the fall trade. These are perhaps vital objections to this proposition.

Again, running the mills during the whole six months let the days be reduced from 12 to 9 hours, exactly 25 per cent., with a corresponding reduction of wages. This has the advantage of giving employment to men throughout a season of the usual length and would certainly be far better for them than to be thrown entirely out of work for a part of the time. The only objections that occur to be urged against this are that it may not be the most economical manner to employ the heavy plants of machinery during such short hours each day, and, that men once used to 9 hour days would not want to go back to those of 12 hours when we were once more ready to crowd work. To the first it can only be said that the plan of reduced production must involve idle machinery during some part of the time—and the second would probably be controlled by making the pay strictly in proportion to the hours of labor.

Another plan combining features of both the foregoing, would be to run 10 hours per day from May 1st to Oct., 15th. It obviates in some degree the objections already stated but has those peculiar to itself. Many mills are compelled to shut down by Oct. 15, or earlier for want of logs; to such it would be no detriment to stop early, and this too would lessen the percentage of the reduction the burden of which it is desirable to distribute as evenly as the benefits surely would be.

In fact, obstacles in plenty confront us whenever any definite plan comes to be discussed. It is only when that point is reached and it is seen how fertile the objections prove, how formidable they are even upon the basis of a small reduction, and

how they will increase in magnitude with the larger percentage proposed, that we begin duly to realize the importance to all the interests involved, both direct and collateral, of limiting the curtailment to the lowest figure that will be effectual.

As here presented the second plan or something resembling it, would seem most desirable. The consideration that it will be less oppressive upon the laboring classes than any other, is entitled to much weight. A good share of the burden will inevitably fall on them, it should be made as endurable as possible. Manufacturers do not want to purchase prosperity for themselves, at the price of want and distress among their employees.

It should be said in conclusion that these suggestions are put forth not from any great faith in their value, but in the belief that any definite suggestion is better than none. as provoking those who can do better thinking on the subject, to put their ideas into shape.

E. R. L.

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#### LUMBER MATTERS AT BALTIMORE MD.

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The *Baltimore Journal of Commerce* of a recent date has this to say of the trade in that city:

Baltimore is a large market for the receipt and distribution of this description of lumber. There are some fourteen or fifteen firms engaged in its receipt, and we have endeavored to ascertain as correctly as possible the extent of the trade in our city. Ten firms have promptly and courteously responded to our inquiries; of the balance, several have declined giving the desired information, and one or two deferred answering until too late for the purposes of the convention. We are therefore compelled to make the best summary we can with data in hand.

The following firm showed an appreciation of our efforts in eliciting

the information: Messrs. Worley & Chrispin, Brown, Graves & Co., R. T. Waters & Son, Odom & Co., McDougall & Co., Greenleaf, Johnson & Co., R. W. S. Trader, W. N. Calvert & Co., Andrews & Co., and Whedbee & Dickinson. They report in the aggregate receipts, viz: from 1st of January to 31st December, 1873, 55,224,850 feet, and from 1st January, 1874, to present date, 31,386,526 feet. The estimate for those firms not reporting, are 12,000,000 feet for the year 1873, and 7,300,000 feet to date, 1874. The entire stock at present is estimated at 3,430,000 feet.

We make a summary of the receipts of yellow pine at Baltimore as follows:

	Receipts. 1873. Feet.	Receipts. 1874. Feet.
Firms reporting.....	55,224,850	81,386,250
Others estimated.....	12,000,000	7,300,868
Total.....	67,224,850	88,687,118

#### MR. WILLIAM E. DODGE AND THE GEORGIA LAND AND LUMBER COMPANY.

The following correspondence of the *New York Sun* explains itself, and may interest some of our readers:

SIR: A portion of the lands which the Georgia Land and Lumber Company own were purchased of some of the most reliable gentlemen of New York, such as the Hon. William Chauncey, Judge A. C. Peabody, Mr. Henry Coghill and others, who had held the lands for nearly twenty years and had, through their Georgia agent, promptly paid the taxes every year, excepting part of the time during the war, when the lands were exempt from taxes. The rest of the company's lands were purchased of Mr. Harvey Lathrop, late of Savannah, Senator Burns of Rome, Messrs Griffin and Clemens of Telfair county, McArthur of Montgomery, and some eight or ten other persons, residents of Georgia, obtaining in every

instance a plot and grant from the state of Georgia for each lot of 202½ acres, and a full and complete chain of title from the state to the present owner, all of which were carefully examined by Nisbets & Co., of Macon, and their certificate obtained before the company made the purchases. No portion of the company's land was ever sold for taxes, except a few lots, and the tax title claim to these lots was purchased and the title perfected.

The Hon. William E. Dodge is charged with uniting with me at the close of the war in the purchase of the lands now owned by the company. Mr. Dodge has but recently become interested. He has purchased the entire stock of the company, and is now the sole owner of the largest tract of pine timber in the United States and holds perfect titles to every acre.

As for the charter, which your correspondent says "was granted to the Georgia Land and Lumber Company" by "Bullock's Legislature," and "which the next legislature will abrogate, unless Mr. Dodge does a liberal thing." I would say that neither Mr. Dodge, nor the company nor myself, has ever had anything to do with Gov. Bullock or his legislature. The Georgia Land and Lumber Company was not chartered by the state of Georgia, has never asked Georgia for a charter, and does not want such a charter. It is a New York institution, expecting to do business in Georgia.

Very respectfully yours.

WM. PITT EASTERN.

GILMANTON, N. H., Aug. 25, 1874.

The second year of THE WISCONSIN LUMBERMAN opens under favorable auspices, and before the close of the present volume great improvements will be made in this publication. No lumberman can afford to be without it. Subscription price \$2.00 per year.

## THE CONVENTION AT MINNEAPOLIS

Proceedings of the Minnesota State Lumbermen's Convention—The Cut of Lumber to be Reduced One Third Another Season—Resolution Condemning the Proposed Repeal of the Duty on Canadian Lumber Adopted.

From the St. Paul Pioneer.

A convention of the lumbermen of the state was held in this city at the council room, City Hall, and was very largely attended.

Lumbermen throughout the northwest have for some time been painfully aware of the fact that the lumber market was so overstocked as to largely reduce or entirely exterminate profits, or anything like a fair or reasonable return for their labor and capital, and latterly they have been giving considerable attention to the matter of a remedy and how to apply it. Yesterday's convention was the result of these deliberations among the lumbermen of Minnesota, and the very large attendance evinced the fact that the heavy men of the state felt that they were vitally interested. At 11 a. m., the hour for which the convention was called, the council room was well filled with financial log rollers, prominent among whom were;

## ST. PAUL.

John S. Prince, H. J. Taylor, J. D. Ludden, Wm. Knight, W. H. Grant, David McCaine, J. M. Keller, and F. W. Flint.

## STILLWATER.

Martin Moore, Isaac Staples, D. M. Sabin, Ed. Stewart, David Tozer, L. E. Torrinus, E. S. Brown, David Goslin, E. W. Durant, C. N. Nelson, Louis E. Hospes.

## ANOKA.

C. Gruley and H. Y. Bell.

## WINONA.

Earle S. Youmans and M. G. Norton.

## MARINE.

John Stewart and Samuel Judd.

## CLEARWATER.

T. Morrison.

## ARCOLA.

Martin Moore.

## MINNEAPOLIS.

Joseph Dean, W. D. Washburn, Dorillus Morrison, George W. Bray, A. N. Gowan, Fred G. Mayo, Herman Leighton, N. G. Leighton, Frank Day, W. W. Eastman, John W. Day, James A. Lovejoy, S. W. Farnham, Ashley C. Morrill, Clinton Morrison, Wm. H. Eldred, J. B. Bassett, Fred Barrows, Josiah Jones, A. T. Ankeny, J. B. Crooker, P. G. Lamoreaux, S. G. Cook, Wm. G. Bedford, W. S. Judd, George A. Camp, and many others.

The convention was called to order by Hon. L. Butler, who read the call as published in *The Pioneer*, stating that said call was issued at the suggestion of gentlemen from Stillwater, and in response to the action of lumbermen of that city.

The convention was then

## ORGANIZED

by electing John S. Prince, of St. Paul, chairman, and E. W. Durant, of Stillwater, and James A. Lovejoy, of this city, secretaries.

Hon. W. D. Washburn thought there was no particular programme to be gone through with, but that it was a meeting to compare views and if possible take such steps as will remedy existing evils. He wanted to hear from Mr. Youmans of Winona.

Mr. Youmans said he had not heard the discussions or suggestions as to remedying existing difficulties affecting the lumber interest. He realized that such difficulties do exist. He came in search of light and information. The whole matter is comprised in the statement that the lumber market is overstocked—and there should be something done he thought to decrease the supply or increase the demand. He suggested the appointment of a well informed committee to present resolutions for the action of the convention.

E. S. Brown moved the appointment of a committee of seven to pre-



pare and submit to the convention of a series of resolutions in reference to the log and lumber supply, and necessity for curtailing it.

The motion prevailed, and the chair appointed as such

#### COMMITTEE

Messrs. E. S. Brown and L. E. Torrins, of Stillwater; D. Morrison and J. Dean, of Minneapolis; F. W. Flint and H. J. Taylor, of St. Paul, and Earl S. Youmans of Winona.

Hon. W. D. Washburn moved the appointment of a committee of five, to name delegates to attend the National Convention of Lumbermen, to be held at East Saginaw, Michigan, on the 15th.

The motion was adopted, and Messrs. W. D. Washburn, of Minneapolis, D. McCaine, of the L. S. & M. R. R. Co., D. Bronson, of Stillwater, Wm. Knight, of St. Paul, and M. G. Norton, of Winona, were appointed as such committee.

Mr. Morrison, in answer to a desire from M. Torinus to hear from the Minneapolis lumbermen, said that the only other matter that remained to be considered was the reducing of the cut of logs. He didn't know just how that very desirable object could be accomplished. Manufacturers cut to supply their mills, and other parties cut largely on speculation, and he should like to hear suggestions as to how they could be prevented from doing so. He thought too large an amount of lumber was being manufactured.

Mr. Washburn said that our pine forests are being stripped and frittered away, and at the present rate, the pine forests of Minnesota would be exhausted in ten years. The lumbermen had hoped that the question of supply and demand would regulate the cutting, but it does not, instead of reducing the cut, it has increased from year to year until timber has become a drug in the market. Each year lumbermen would deplore the situation, regret that the market was overstocked, and universally agree

that the cut should be reduced the next winter, and then, to be a little smarter than his neighbor, and get advantage of prices growing out of what he believed would be a short stock of logs, each one would go into the woods and cut more logs than ever.

He thought the lumbermen of this state possessed ability and integrity and influence sufficient to put a stop to this wholesale and wanton destruction of Minnesota pine; the great value of which was not sufficiently realized. They should enter into some general agreement by which the cut might be reduced 100 per cent., and while the lumbermen would thus realize a great saving in capital and labor, their markets would be made firm, the demand would correspondingly increase, and the profits to lumbermen be quite as large as at present. He thought the mill owners at this point should agree to saw but 100,000,000 feet another season, and for one he would legally bind himself to cut only his proportion of that amount, and agree to pay \$5.00 per thousand for all he cut above the proportion so agreed upon. He thought such an agreement faithfully and honorably carried out, would solve the whole question, and put the lumber trade on a sound and paying basis, while it would save to lumbermen and to the state many millions of lumber yearly, now worse than wasted.

At the conclusion of Mr. Washburn's remarks the convention adjourned until 2½ p. m.

#### AFTERNOON SESSION.

The convention reassembled at 2½ p. m., with a very large attendance.

The committee on resolutions submitted their report as follows:

#### RESOLUTIONS.

*Resolved*, That it is the judgment of this convention that the present ruinous prices of lumber are caused solely by the over production of lumber, and that the only way to obtain a fair price for our lumber is to reduce the supply.

*Resolved*, That we recommend an united determination of all the lumbermen to reduce the cutting of the mills of this state  $33\frac{1}{4}$  per cent. the ensuing season of 1874-5, and that each locality, through its boards of trade, or different associations, enter into written agreement with one another, pledging themselves to abide by and fully comply with such agreements.

*Resolved*, That the surveyor general of each district furnish to the permanent officers of this convention showing the amount of logs (or estimate of the same in the absence of other means of information for arriving at the amount) each locality has cut during the sawing season of 1873-4, and that from the amount so cut  $33\frac{1}{4}$  per cent. be deducted, and that shall be the amount so apportioned to each locality; and that the said officers cause printed or written notices to be sent to each locality showing such amounts.

*Resolved*, That in case any locality cannot agree as to the amount each mill shall cut, the difference shall be referred to a committee consisting of the surveyor generals of the respective districts, and their decision shall be binding on all parties.

*Resolved*, That this proposed reduction of the cut shall be entirely null and void, unless all the principal pine lumber producing or manufacturing regions join in with us in this matter, as this is the ground work of the whole thing.

*Resolved*, That the convention fully believes that the best way to arrive at the proposed reduction is by restricting the actual cutting of the mills, and that the result can be reached in no other way.

*Resolved*, That our representatives to the Saginaw convention are hereby instructed to carry out our views as expressed in the foregoing resolutions.

The above resolutions were taken up and adopted in their order, unanimously. Hon. W. D. Washburn from the committee to nominate delegates to the

NATIONAL CONVENTION OF LUMBERMEN at Saginaw, reported as follows:

Winona—Earle S. Youmans, W. H. Laird and Bennett.

St. Paul—John S. Prince and H. J. Taylor.

Anoka—J. B. Crooker, Wm. Knight and H. Y. Bell.

St. Croix Valley—E. L. Brown, Smith Allison, E. W. Durant, Isaac Staples and D. M. Sabin.

Lake Superior and Mississippi Railroad—R. A. Munger and J. D. Ludden.

Minneapolis—L. Butler, D. Morricon, Geo. A. Camp, James A. Lovejoy, W. D. Washburn, Joseph Dean and J. B. Bassett.

The report was adopted and the delegates declared elected, with power of substitution, in case any delegate could not attend.

Mr. Brown then offered the following on the

#### RECIPROCITY TREATY.

*Resolved*, That we view with alarm the passage of the proposed reciprocity treaty, so called; as regards lumber, and in view of the immense stocks of lumber and logs now held by the people of the northwest, and the extremely low prices being obtained therefor, and the fact that the present low prices are caused by an overstock of said logs and lumber we fully believe that the repeal of the present duty will result in throwing a large amount of Canadian lumber on our market, and very materially reduce prices, causing absolute ruin to all at present engaged in the lumber business.

M. Youmans, of Winona, took the floor in opposition to the resolution. He thought it premature and impolitic to consider it at this time. There are two sides to this question, and he advised the convention to be a little cautious as to how it grappled with so serious a matter without due consideration.

Mr. Washburn said that if we don't take care of ourselves no one else will take care of us, and he could see no impropriety in the lumbermen expressing their views, and protecting their interests so far as they can in this matter. He supported the resolution.

Mr. Youmans said there was no question as to our right to express our opinions, but he did not think it politic. It was simply demanding protection of the interests of a few manufacturers at the expense of the

many consumers, and he opposed it in the strongest terms.

Mr. Butler didn't profess to be well posted on the tariff question, but thought to reduce the price of lumber \$2 per thousand, as the removal of this duty would do, would impoverish thousands of laboring men and prostrate business throughout the country.

Mr. Washburn again spoke in favor of the resolution. He thought that for the general prosperity of the country, all branches of industry should prosper, and no one had a right to complain at any legitimate action upon the part of lumbermen to protect themselves, and obtain a reasonable compensation for their products.

Mr. E. S. Brown spoke in favor of his resolution and predicted that if the reciprocity treaty passes lumber will sell at Chicago within the next year at \$5.50 per thousand; and in that case the lumbermen of Minnesota would be compelled to shut up shop.

Mr. Youmans insisted that it was impolitic to antagonize the lumber interest against all the other interests that will be benefitted by such a treaty.

Mr. John M. Keller supported the resolution, and thought the removal of the duty \$2.00 per thousand from Canadian lumber would work disaster to the lumbering interest, and should be prevented. The Canadians employ men at \$10 to \$20 per month, while here the wages are double.

Major Camp says the government is supported by a tariff. The only thing in which the people of this state are benefitted by the tariff, is the one which it is proposed to cut off by removing the duty on lumber. He didn't see why the west should be sacrificed, more than the east. We have a right to speak and be heard.

Mr. L. E. Torinus also spoke in favor of the resolution.

A vote being taken the resolution

was passed with but one dissenting voice.

Major Camp suggested the propriety of organizing a permanent State Lumbermen's Association.

Mr. Morrison favored the move.

F. W. Flint moved the appointment of a committee of three to present the names of officers of such an association.

Mr. Washburn moved to amend by declaring that a

#### PERMANENT ORGANIZATION,

of the lumbermen of the state should be effected, with a president, vice president, secretary, treasurer and executive committee of twelve.

The amendment was accepted and adopted.

Messrs. Torinus, Flint and Washburn, were appointed a committee to present the names of permanent officers of the aforesaid

#### STATE LUMBERMEN'S ASSOCIATION,

and in due time reported the following

#### OFFICERS :

President—L. Butler, Minneapolis.

Vice President—Isaac Staples, Stillwater.

Secretary—James A. Lovejoy, Minneapolis.

Treasurer—Clinton Morrison, Minneapolis.

Executive Committee—Hon. L. Butler, Minneapolis; E. S. Brown and E. W. Durant, Stillwater; E. S. Youmans, Winona; — Cozell, Red Wing; R. C. Libbey, Hastings; John Dudley, Point Douglass; F. W. Flint and John D. Tudden, St. Paul; H. Y. Bell, Anoka; W. D. Washburn, C. H. Pettit and Joseph Dean, Minneapolis.

The report was accepted, and the above officers declared elected for the ensuing year.

On motion of Hon. D. Morrison, it was provided that a meeting of the association may be called at any time by the president and three directors, upon the request of six lumbermen:

## CO-OPERATION INVITED.

Mr. E. S. Brown offered the following, which was adopted:

*Resolved*, That we cordially invite all parties interested in logs and lumber to unite with us in order to obtain the desired result, to wit: the reduction of the present excess of lumber.

## MISSISSIPPI VALLEY LUMBERMEN'S CONVENTION.

Major Camp offered the following, which was adopted:

*Resolved*, That the delegates from this state to the Saginaw convention be directed to make arrangements for a convention of lumbermen of the Mississippi valley and its tributaries, for the purpose of uniting all parties in said valley who are manufacturing lumber, in reducing the production of lumber, and agreeing upon time and place of meeting.

It was understood that the president and directors should perfect the plan of organization of the association, at their leisure, and the convention then adjourned.

## THE CONVERSION OF CANADIAN TIMBER LANDS.

*From the Montreal Gazette.*

The eleventh publication of the annual report of trade and commerce of Montreal, by Wm. J. Patterson, Esq., Secretary Board of Trade and Corn Exchange Association, contains the following useful and suggestive article, bearing upon a subject of no little importance just at this time, seeing that the lumbering interests of Canada are now exciting so much attention both amongst our own and the American lumbermen. It says:—

"It has heretofore been customary, to preface the lumber statistics, in this series of annual reports, with some general remarks on particular branches or aspects of the trade; and oftener than once has occasion been taken to draw public attention to the grievous waste which universally, (but needlessly) attends operations in the pine forests of the dominion. It would, perhaps, be hardly expected that the notions of opinions

of a comparatively obscure compiler could have weight with an influential, extensive, and wealthy trade, much less with the Government,—even where the vital interests of both parties are involved. It is gratifying, however to know that public interest is beginning to be aroused on the subject of the duration and value of the Canadian supply of lumber,—that speculations are being indulged as to how long or how short a time will be necessary to exhaust these pine forests; and it is to be hoped that, ere long, some plan will be devised to conserve and economize what may well be designated "Canada's national patrimony," by wisely providing for the use of every possible part of every tree that is felled.

"The present state of the case is this:—Some parties assert that within a period of perhaps ten or twelve years hence the forest supply, at the present increasing rate of exportation, consumption, and waste, will be nearly exhausted; while others, with great positiveness, declare the supply to be sufficient for generations to come. The two allegations, equally strong, are equally without proofs; and, of course, the general public, or perhaps even the Government, are unable to decide between the two. Judging from appearances, however,—or perhaps, more correctly speaking, their indifference,—the rulers of the dominion seem to entertain the belief that there are many years to elapse before the country is brought face to face with the reality of forest exhaustion.

"Seeing there is such incertitude in regard to what is really a grave question, why should not Government institute an examination of the forests?—appointing competent parties to estimate the probable quantity of timber available,—which, when compared with the usual consumption and export, taking into account the annual ratio of increase, would serve as a fair approximation to how long



this Canadian timber trade may last. Or, a commission should be appointed to investigate,—with power to examine all lumbermen who hold timber licenses, so as to obtain an estimate of the quantities of timber still remaining on the limits held by them;—the unlicensed territory could be explored and also estimated;—taken together, the two results might be fairly considered to show the approximate supply and probable duration. Or, a commission could acquire information respecting the area of country now completely denuded of timber; also the area partially cleared out, as well as the forest country still untouched;—it could then be computed, with tolerable accuracy, how much timber has been already cut, and how much time has been spent in the cutting,—these data, compared with the areas of forest partially cut over, and those still untouched, would indicate pretty fairly the extent (both as to quantity and duration) of the remaining forest lands. It must, however, be taken into account, in making up an estimate, that the regions now partially cut over, or still untouched, will not yield nearly as much lumber of merchantable quality as those which have been cleared out in the more southerly parts of the country; for it is a well-known fact that the forests decrease in value northward, until at last the pine altogether ceases to grow.

"The foregoing are some of the means suggested for ascertaining the true state of the case, as regards a great Canadian staple commodity. Others of greater merit and accuracy may be devised,—and if so, by all means let them be adopted. The Government of the dominion ought, without delay, to take steps to compel economy in every stage of the process of preparing lumber. It has been pointed out in former issues of this report that the system of levying dues, irrespective of the quality of the timber, induces the lumbermen

to leave much of what has been cut to rot in the woods, and that, therefore, logs of a certain inferior kind should either be entirely free, or the duty should be so low as to be really nominal. Practical lumbermen are agreed that such a policy is the true one to be adopted, and that the immediate result of it would be an increase in the average quantity of lumber obtained from each tree. As, however, payment of dues, on the basis of quality of the logs, would involve their being culled in the woods (a very uncertain as well as expensive process, in the circumstances), the most satisfactory way to secure the revenue would be by an *ad valorem* on the timber sawed and exported. This could be easily done by the Inland Revenue Department. At present, returns of quantities exported are made by the lumbermen themselves; and the value would only have to be added, to afford data for collecting the dues.

"It is further suggested that vigorous measures be also adopted to prevent the devastation of the forests arising from fires,—and that inducements should be held out for the giving of information against parties wilfully or accidentally causing such fires. Heretofore, in many cases, a lumberman holding a valuable limit, and one or two of his employees, have been the only persons aware, perhaps for a year or more, that fifty million or one hundred million feet of lumber have been destroyed by burning. Such a fire may have been set by a stray hunter or fishermen bent on sport,—or by the clearing of some pioneer far in advance of the frontier settlement, or, as is often the case, by some of the lumberman's employees, who, troubled by the flies on the banks of a stream, may have kindled a fire to secure the protection from their tormentors which the smoke affords; but from what cause soever forest conflagrations may arise, there must be effectual means devised to bring the perpetrators to

justice,—and to induce the most careful handling of an element which may, carelessly or criminally, cause the destruction of public property of untold value.

“While thus urging that all possible means should be adopted for the conversation of the forests of Canada, planting (as proposed in a former issue) should be encouraged in every possible way. And the Government should, in this particular, set an example to the people, by appropriating tracts of waste lands for the purpose of public planting and experiments,—in this way, probably, most readily finding out the best plan to prevent the entire exhaustion of what will always be (independently altogether of the demand for exportation) a prime necessity in the dominion as an article of consumption.

#### TIMBER SUPPLY OF THE SOUTH.

A correspondent of the *Boston Lumber Trade* writes as follows concerning the timber lands of the south:

“I notice, in the last issue of your paper, an article, copied from the *Georgetown Times* in regard to the supply of pitch pine timber in the southern states. I read the report, submitted to the house of representatives by Mr. Dunnell, from the committee on public lands, with much interest. It contains a great deal of valuable information and makes some excellent recommendations. I carefully examined the statement as to standing timber, and wonder how that estimate was made. I am satisfied that the estimates made by Mr. Little, and Colonel Wait are both far from correct as far as the southern states are concerned. Mr. Risley's estimate for North Carolina and Virginia I should think much nearer the mark. I do not propose to review these estimates, but will simply say that, where such remarkable differences exist in the

estimates, it is very probable that nobody is right. The truth is, it will require commissioners in each state to examine carefully the timbered districts to arrive at anything like a proper estimate.

I have examined a large portion of the timber districts of this state and there I do not doubt that it will require the utmost care to arrive at any fair estimate. Mr. Risley speaks of timber land, yielding an average of 1000 cubic feet to the acre. I have yet to see such land in the pitch pine district, about 4000 superficial being all that our most experienced timber cutters estimate as an average for well-timbered land, and many of them put it at less—I mean of timber squaring 10 inches and up. I know large tracts of land, that are called timber lands, that will not yield over 2000 feet, board measure, of lumber, 10 inches and up square. In the pitch pine belt of Georgia, there are innumerable “bays” (as they are called in the vernacular) that sometimes occupy the space of several hundred acres. These “bays” have no pine timber in them, in fact no timber of value, as the cypress trees are as a rule, too small to be available. The greater part of the timber, near the water-courses and railroads have been cut away and it is becoming very difficult to find a location for a mill on a railroad or stream in the midst of any considerable body of timber in the state of Georgia. Many mills are now located from one hundred to one hundred and fifty miles by railroad, from the sea-board, and some of these have tram-roads running three and four miles, and even farther, in order to reach the timber. Our largest mills have railroads of their own, with a locomotive and trucks, to bring in their saw-logs. When it is understood that two lines of railroads have been completed, within a very few years past, running their entire length through the best timber belt in the state, it can be

understood how fearful the destruction has been within the past three years.

Timber lands in this state near streams or railroads (particularly railroads) are becoming so scarce as to have advanced in value one to two hundred per cent. and there is now the most promising opening for investment in this character of property. I believe there is a fortune, and one that will be made speedily, in such investments. This too, is the most propitious time for it, that will probably occur for years. The panic and over production of lumber, brought about by the sudden falling off in the demand, have caused the price of pitch pine lumber to decline from \$3 to \$5 per M and hewn timber for export has declined in proportion. This decline has caused the suspension and financial wreck of many of our mill-men, and the lumber that is now being produced, is manufactured without any profit to the mill-man. This state of things makes timber lands and saw mills cheap and prices far below the value are put upon such property. To illustrate the decline in lumber and, at the same time, to answer a communication, recently published in your paper, signed "Van," I give you the price actually paid for building orders in Boston in 1873, and the price at which orders are now taken.

In 1873 orders were placed at \$37, in 1874 orders are now taken at \$28; a decline of \$9 per M. Freights then from Georgia ports, \$12 to \$13, but we will put them at \$13. Freights now at \$9—\$4 less in freight, take this from \$9 and you have a decline of \$5 per M, but throw off \$1 for good measure and there is an absolute decline of \$4 per M. In the New York market, the difference in flooring boards, taking actual sales, will show fully \$4 per M difference, and, when you consider the difference in inspection in that market in an active and a dull time, I do not

think \$6 per M will cover the difference. I know these to be facts from actual sales.

I have written at greater length than I intended, but, before closing, will refer again to the subject of timber supply of the southern states. I am satisfied that any lumberman, who has read the estimates, referred to in this letter, will see at once that there is a radical difference in the method of calculating by the gentlemen, and I am also satisfied these very gentlemen used figures, made up from the best lights they had or could get, simply as a basis of argument. The point to which I am coming, is the necessity of a carefully prepared estimate of all the standing timber east of the Rocky Mountains, and 'The National Association of Lumbermen' have this before them, as one of the most important labors which it can accomplish, more important even, perhaps, than the regulation of supply and demand for manufactured lumber."

Yours truly, PITCH PINE.

#### VALUE OF THE CHIPPEWA VALLEY RAILROAD.

The *Eau Claire* (Wis.) *Free Press*, speaks thus of the projected Chippewa Valley railroad:

We want the railway because it has been developed that certain kinds are more easily marketed and at better prices for never seeing the water. Northern Iowa, southern Minnesota and the country west can be supplied just as cheaply from this point as from any point on the Mississippi, thus saving the cost of rafting and running to the several lumber markets on the river. It, too, transfers our lumber yards on the Mississippi to our mills at home, hence enlarging the home business and avoiding the necessity of numerous middlemen. Besides, we are sending off all of our lumber or boards in the raw, when, with a railroad a large portion would be manufactured into sash,

blinds, flooring, window frames, doors, tubs, pails, and everything of that sort, which we are now precluded from doing, from the very fact of our poor transportation facilities.

#### DISTRIBUTION OF AMERICAN WOODLANDS.

The flora of the United States is believed to contain over 800 woody species, and over 300 trees. Of these trees, about 250 species are in some places tolerably abundant; about 120 species grow to a tolerably large size; 20 attain a height of 100 feet; 12 a height sometimes of over 200, and a few—perhaps 5 or 6—a height of 300. New England I consider to contain 80 or 85 species, of which 50 may reach a height of 50 feet. Maine is the great source of pine and spruce lumber, but, as a whole, the hard wood species predominate. Without going into the details of this flora, it is sufficient to give the author's remark that the area of woodland in New England is not perhaps greatly diminishing, but the amount of timber, capable, of being made into sawed lumber, is lessening. The Middle States have about 100 to 105 species of trees, 65 to 67 of which sometimes reach 50 feet in height. Here were originally very heavy forests. There are still large areas heavily timbered, but the timber for all purposes is unquestionably rapidly diminishing, and there is no compensating influence going on for increase.

But in the Middle and New England States various hard woods attain their greatest perfection as to strength and durability; and as a consequence here we find the manufacturers that are dependent on these woods. In the south eastern region—that is, extending from Virginia and Florida—we have about 130 species. In each case, these form the conspicuous elements of the landscape. Seventy-five attain a height of 50 feet or more, and about

a dozen species a height of 50 feet or more, and about a dozen species a height of 100 feet. A belt of pine timber extends the whole length of this region, which is the great source of the hard and yellow pine. The north western region, from Ohio to Minnesota and north of the Ohio river, is represented by about 105 to 110 species, 68 or 70 of which may reach a height of 50 feet. That is the district furnishing at present the largest production of sawed lumber within the United States. Michigan alone furnished in 1870 of the 12,750,000 M feet, 2,250,000; Wisconsin furnished over 1,000,000—the two states thus producing more than one fourth of the whole yield returned in that year.

The southwestern region, extending from Kentucky to Texas and the Gulf, has about 112 to 118 species, 60 or 65 of which attain a height of 50 feet. West of these last two districts, this treeless belt, extending entirely across the continent from the Gulf of Mexico to the Arctic ocean, is described, and its characteristics within the limits of the United States are mentioned. It is 350 miles wide in its narrowest part, between latitude 36 deg. and 37 deg. and 800 miles wide on our northern border. The Rocky mountain region is next considered. This consists of from 28 to 30 species, but a vastly smaller number making up the timber region. Perhaps not over a half dozen species constitute by far the largest part. No hard woods are abundant in any of the forests west of the great plains, although hard woods occur, particularly in the southern and western part, as scattered trees rather than as forests. Between the Rocky mountains and the Sierra Nevada is a deserted and sparsely-wooded region, which extends southward to Mexico, uniting on its southern part with the treeless expanse which extends from the Atlantic to the Pacific along our southern frontier and throwing out a



spur entirely across the Rocky mountains near the Pacific railroad, connecting it with the treeless plains on the eastern side. This great treeless district varies very much in its different regions, has quite a large number of species of interest to botanists, and some few of economic value. The only forests within it are forests of evergreen, occurring on the mountains, of which the largest one is in Arizona, and is 400 miles long, the limits of which have recently been demonstrated by Lieut. Wheeler's Expedition. Here followed an analysis by the author of the flora of the region west of this desert of California, Washington Territory, and Oregon, where were found the grandest forests perhaps on earth, and the noblest trees. The number of species of these latter is quite large, but in any one region the number of species is small. With one single exception all of the trees within the United States which attain a height of 200 feet are found in this district. The forests are entirely of cone bearing trees, and the number of species is large, the number of timber trees being very large, and their size and value also being great. In Washington Territory, official reports state that the land will produce from 25,000 to 300,000 feet per acre, and that there are vast tracts "that would cover the entire surface with cord-wood ten feet in height."

—Prof. Brewer in *New York Tribune*.

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

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The editor of the *Boston Lumber Trade* puts in an appropriate "if" when he indicates that THE WISCONSIN LUMBERMAN confounds the names "white" and "yellow" pine.

## VALUABLE MECHANICAL RULES.

*From the Artisans Journal.*

The following briefly stated rules will often be found convenient :

When number of horse powers and number of revolutions are given, to find diameter of shaft required. Divide number of horse powers by revolutions per minute, multiply this quotient by 300 if for a first mover; if for a second mover, by 200; if for lines of shafting beyond second mover, by 100. The cube root of the product will be the diameter of the shaft in inches.

To find the circumference of a circle or pulley : Multiply the diameter by 3.1416, or 7:22 :: diameter to circumference.

To find the diameter of a circle or pulley : Divide the circumference by 3.1416; or multiply the circumference by .3183, or 22:7 :: circumference to diameter.

To find the area of a circle : Multiply the circumference by one fourth the diameter; or multiply the square of the diameter by .7854; or multiply the square of the circumference by .07958.

To compute the diameter of a toothed wheel : Multiply the number of teeth by the true pitch, and the product by .3184. These results give only the diameter between the pitch line on one side and the same line on the other side; and not the entire diameter, from point to point, of teeth on opposite sides.

To compute the number of teeth in a pinion to have any given velocity : Multiply the velocity of the driver by its number of teeth or its diameter, and divide the product by the desired number of revolutions of the pinion or driver.

To compute the diameter of a pinion, when the driver and the number of teeth in driver and pinion are given : Multiply the diameter of driver by the number of teeth in the pinion, and divide the product by the number of teeth in the driver, and

the quotient will be the diameter of pinion.

To compute the number of revolutions of a pinion or driver, when the number of revolutions of driver and the diameter or the number of teeth of driver and driven are given: Multiply the number of revolutions of driver by its number of teeth or its diameter, and divide the product by the number of teeth or the diameter of the driven.

To ascertain the number of revolutions of a driver, when the revolutions of driven and teeth or diameter of driver and driven are given: Multiply the number of teeth or the diameter of driven by its revolutions, and divide the product by the number of teeth or the diameter of driver.

To ascertain the number of revolutions, of the last wheel at the end of a train of spur wheels, all of which are in a line and mesh into one another, when the revolutions of the first wheel and the number of teeth, or the diameters, of first and last are given: Multiply the revolutions of first wheel by its number of teeth or its diameter, and divide the product by the number of teeth or the diameter of the last wheel; the results is its number of revolutions.

To ascertain the number of teeth in each wheel for a train of spur wheels, each to have a given velocity: Multiply the number of revolutions of the driving wheel by its number of teeth, and divide the product by the number of revolutions each wheel is to make, to ascertain the number of teeth required for each.

To find the number of revolutions of driven pulley, the revolutions of driver, and diameter of driver and driven being given: Multiply the revolutions of driver by its diameter, and divide the product by diameter of driven.

To compute the diameter of driven pulley for any desired number of revolutions, size and velocity of driver being known: Multiply the velocity

of driver by its diameter, and divide the product by the number of revolutions it is desired the drive shall make.

To ascertain the diameter of driving pulley: Multiply the diameter of driven by the number of revolutions you desire it to make, and divide the product by the number of revolutions of the driver.

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A number of gentlemen connected with the Wisconsin River Improvement Company, and heavily engaged in the lumbering business, visited Grandfather Bull Falls last week, for the purpose of seeing what could be done in the way of improvement on the same. They state that between 7,000,000 and 8,000,000 feet of lumber in the log, are laid up on these falls with no possible means of removing them without danger of life. A number of dams will necessarily have to be put in, which will require no small amount of labor, and as the season is so far advanced, they doubt whether operations will be commenced before next year.—*Wausau Central Wisconsin.*

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**NEW SAW MILL.**—The *Flint Register* states that F. J. Peter has decided to erect a saw mill on the pond at the west end of Farwell. It will have a cutting capacity of 25,000 feet per day, and the work of building it has commenced.

**RIVER IMPROVEMENT.**—Mr. Garfield, representing the Painesville, Ohio, Bridge and Improvement Co., who have the contract for the improvement of Carrollton bar, was in Flint on Friday, and secured the services of A. Fitzgerald's pile driver. The work will be commenced immediately. The government appropriation for the work is \$15,000.

## TRUCKEE (CAL.) LUMBER TRADE

## IT'S HISTORY, PROGRESS AND PROSPECTS.

Building the Central Pacific—263,000,000 feet of Lumber—3,000 Square Miles of Pineries—Importance of Flumes—Defective Land Laws—Pre-emption Parce—Consolidation of Lumber Firms.

## NUMBER, CAPACITY AND POWER OF THE MILLS—MARKETS AND RATES.

*Correspondence of the Sacramento Record.*

Among the various resources of California which have been developed by the Central Pacific railroad, the lumber trade of the Sierras stands prominent "in the wisdom and counsel of Diety aforesaid," the most feasible route over the mountain barrier that guarded the Golden State was located in the very heart of the timber belt. Had the surveyors who "blazed" the line for the proposed continental railway attempted to select the richest forests, instead of the easiest grades, they would have varied but little from the route. When the corps of engineers began the work of building the great railroad, the solemn old pines were suddenly startled by the echoes of a thousand axes. During the years 1867 and 1868, a livelier camp could not be found than Coburn station, on the present site of Truckee. Mills began to spring up as if by magic all along the river. The cosy retreats of the grouse and mountain quail were invaded by a swarm of indrious labor loving men, and the mountain trout found their favorite nooks occupied by great splashing mill-wheels.

## CENTRAL PACIFIC CAPITAL

Built many of the mills. The Contract and Finance Company advanced money to every one who wished to build a saw-mill. The greatest railroad enterprise that Yankees ever planned must not be suffered to drag for want of lumber and ties. The whirr of pulleys, the rumble of belts, and the buzz of saws resounded from hill-side and canyon. The unstinted expenditure of railroad money caused the lumber trade of Truckee to burst into existence, full-fledged in a single day. Experienced lumbermen from Maine, Canada, the provinces, and from every part of the union came flocking in to the Summits, lured by the ready coin that was offered for every stick of timber that could be delivered by the railroad track.

## THE PIONEERS.

Schaffer & Gray built the first mill, just across the river from Truckee. In 1867 they cut ties and bridge timber for the railroad. Some idea of the magnitude of their business may be obtained by glancing at the immense bank of saw-dust accumulated on the mountain side. The mill has long since been torn down and moved to Martis creek, but the huge pile of sawdust will remain for years. Brickell & Geisendorfer also began in 1867. Their mills sawed the ties and timber of the Donner creek bridge, during the first year.

## A REMARKABLE YEAR

In the lumber business was 1868. Brickell & Geisendorfer cut 8,000,000 feet; Schaffer & Gray 5,000,000 feet; Elle Ellen began operations, and cut, probably 3,000,000 feet. A. P. Stanford built a mill at Cold Stream, and another one mile above. These mills cut about 6,000,000 feet that year. A small water mill at Donner lake had been built by o Mr. Baker. He was killed by the explosion of the Washoe on the Sacramento river and the Towle Brothers, of Alta, used the mill to cut lumber to build two steam mills. With these mills they cut some 8,000,000 in 1868. Proctor also built two mills about three miles below Truckee, and sawed about 8,000,000 feet, principally ties. Geisendorfer put up a mill about one mile below town, during the same year, and cut 3,000,000 feet. The Silver State mill, owned by Charlie Barrows, was first located in 1867, between camps 18 and 19, but in the spring of 1868 it was moved up to Stonewall, five miles below Truckee, and cut 3,000,000 feet. The Union mills, one mile this side of Prosser creek, built by Starbuck, Miller & Heaton, cut 5,000,000 feet. T. R. Jones, of the well-known firm of Land & Jones, built the Pacific Mill, one mile west of Boca, and sawed some 8,000,000 feet in 1868. The same firm also built the Bragg & Folsom mill at camp 18, and cut another 8,000,000 feet. At camp 20 Capt. Allen & Co., built a small mill and sawed some 200,000 feet, and at camp 19 Rideout & Co., put up the Marysville mill and cut 4,000,000 feet. L. E. Doan also began in 1868, at Boca, and cut 4,000,000 feet, and Mr. Munger erected a mill on the road to Donner lake and sawed about 1,000,000.

## FIFTY CAR-LOADS OF LUMBER DAILY!

Mr. J. V. Hoag, the present secretary of the Sierra Nevada Lumber Association, was identified with the lumber interests from

the beginning. He received the ties for the railroad, and forwarded them wherever ordered. During the summer of 1868, he shipped fifty car-loads of ties per day. A car load was 240 ties, and each tie contained 32½ feet, hence the daily shipment was 388,000 feet.

The shipments of 1869 nearly equaled those of the previous year, for although the road was completed, the snow sheds were to be constructed. As high as forty and forty-four cars loaded with timber and lumber for the sheds were sent from Truckee daily during the month of July. About this time ties were shipped to the Oregon road. Governor Stanford once seeing 169,000 ties in a single pile, feared that they might burned, and ordered the shipments stopped. Imagine his surprise upon being informed that this vast amount was only half as much as had been sent east during a single month.

## A PAUSE.

When the road was completed, and the sheds finished, many of the mill men supposed the demand for lumber exhausted. There seemed to be no prospect of a renewal of the lumber trade, and some mills became idle, while others were sold or removed to different localities. A few men, through bad luck, had failed. One of the Stanford mills became the property of John Kneeland, who has since operated it. The other reverted to the Contract and Finance Company, and was burned, in 1870, with 400,000 feet of ties and lumber. The Donner lake water mill fell into the hands of the Sitka Ice Company, and, although idle, is still owned by them. One of the Towle Brothers' mills was moved to Plumas county, and the other was taken to the vicinity of Alta. Starbuck, Miller & Heaton sold out, and their mill was moved to some point on the coast. The Marysville mill was moved to Auburn. Captain Allen & Co. broke up, and Joseph Gray came into possession of the property. Munger also failed, and his mill, dilapidated and tumbling down, is yet to be seen by the side of the Donner lake road, the machinery having been sold in Sacramento. The Stonewall mill was burned, and the Procter mills became the property of the Alder Creek Mill Company.

The years succeeding have been comparatively quiet, yet the demand for lumber has been steadily increasing. The constant repairs necessary to keep the railroad in good condition, the buildings

that have been going up in all the towns along the line, and the vast amount of timber used in the mines of Nevada and Utah, have furnished a market that has annually been increasing in its demands.

## LUMBER STATISTICS.

The following table shows the number of million feet cut in the immediate vicinity of Truckee during the last seven years. It does not include the mills at Verdi, or any on the western slope of the Sierras. The figures in many places are only approximations, but the most experienced lumbermen in the district have been consulted in regard to their correctness. The figures represent millions of feet, and the dates at the heads of the columns show the years in which the mills were running:

	1867.	1868.	1869.	1870.	1871.	1872.	1873.	TOTAL.
Schaffer & Gray.....	4	6	5	6	4	5	5	34
Truckee Lumber Company.....	4	8	8	8	8	8	8	62
Donner Lake Water Mill.....	1	8	8	8	8	8	8	1½
Towle Brothers (two mills).....	1	8	8	8	8	8	8	19
Stanford Mills (two).....	1	8	8	8	8	8	8	16
Starbuck, Miller & Heaton.....	1	8	8	8	8	8	8	23
T. R. Jones (two mills).....	1	8	8	8	8	8	8	20
Bragg & Folson.....	1	8	8	8	8	8	8	6½
Marysville Mill Company.....	1	8	8	8	8	8	8	25
Capt. Allen & Company.....	1	8	8	8	8	8	8	25
L. E. Doan.....	1	8	8	8	8	8	8	1½
Munger.....	1	8	8	8	8	8	8	14
Procter Mills (two).....	1	8	8	8	8	8	8	7
Stonewall.....	1	8	8	8	8	8	8	8
Gelsendorfer.....	1	8	8	8	8	8	8	8
Joseph Gray.....	1	8	8	8	8	8	8	1
Richardson Brothers.....	1	8	8	8	8	8	8	1
Alder Creek Mill Company.....	1	8	8	8	8	8	8	9
California and Nevada Comp'y.....	1	8	8	8	8	8	8	7
McFarland.....	1	8	8	8	8	8	8	2
Totals, each year.....	9	71	60-15	25	28	31	38	202 9-10

From the above figures it will be seen that the enormous amount of two hundred and sixty-three million feet of lumber was cut near Truckee prior to this year.

It would seem from this fact that timber must be scarce in this region. The vast army of stumps which line both sides



of the Truckee river canyon seems to attest that at least the best timber has been felled. Just the contrary is the case. The poorest trees stood next the river, and the choicest forest trees are yet untouched.

#### IMMENSE PINERIES

Extend in every direction, north, south, east and west. A few miles from Truckee the giant pines and firs stand in unbroken, serried columns, as compact and apparently invincible as they were a half-century ago. Hour after hour one can travel through densely wooded country. The plateaus, the meadows, the slopes, ravines, gorges, and even the very mountain crests are densely timbered. The beautiful, shapely larch, or tamarack, in the low, swampy meadow or flats, the tall, stately fir, and the magnificent yellow and sugar pines, on the mountains, stand in their primeval grandeur. In many sections of these timber lands the sound of an axe, or the fall of human footsteps, has never been heard, except as a party of surveyors or hunters chanced to pass by.

#### EXTENT OF FORESTS.

From Truckee eastward, these forests extend to Verdi, a distance of perhaps twenty-four miles; and their western limit is Coalfax, fifty-eight miles from Truckee. Eighty-two miles, then, is the width of the lumber region where the Central Pacific railroad crosses. All along this line the timber has been cut, owing to its immediate proximity to the great market, the railroad; but a few miles further back, not a tree has been felled. To the northward, as far as Sierra Valley, including the magnificently wooded basins of Independence and Webber lakes, the forests are unbroken and unharmed. The great Tahoe basin, to the southward, and the mountains surrounding the basin, are naturally tributary to Truckee, and include some of the richest forests on the Sierras. It will thus be seen that, at the very least calculation, there over three thousand square miles of timber land on these summits.

#### ACCESSIBILITY.

Recently, the extraordinary development of the mines of Nevada and Utah, and the increased demands of the Central and Union Pacific roads have given renewed life to the lumber trade. The great question among the millmen for a few years was "How shall we get the logs to our mills, and the lumber to the rail-

road?" Within a radius of ten miles from Truckee there are trees enough to supply present demands for a dozen years. The expense of hauling logs and lumber is, however, very great, and there is a limit to the distance at which they can be profitably transported by teams. To be sure the Truckee river and the Little Truckee afford splendid facilities for driving logs, but they are both secured by franchises, and flow through a limited extent of country.

#### NARROW-GAUGE RAILROADS

Were for a time considered the most feasible solution for the problem, and the Truckee Lumber Company laid a track of some one and a quarter miles in length to their timber lands. The track has been in successful operation ever since, and has demonstrated the practicability of such a method of transporting saw-logs to mills, but its expensiveness will prevent its general adoption by lumbermen.

#### A NOVEL TRAMROAD!

The Richardson Brothers, at the Summit, constructed a very ingenious tramroad over which to haul logs. They took round timbers from twelve to fourteen inches in diameter, and partially imbedded them in the ground. The tracks thus formed were seven feet apart, and have much the appearance of a wooden railway. The wheels of the huge trucks are as far apart as the width of the track, and have two heavy flanges on each side, which straddle the logs composing the track. This tramroad was about a mile long, and the cost \$1,200. The load hauled would average timber enough to scale 5,000 feet of lumber, and were drawn on an up grade by eight mules.

#### FLUMES—IMPORTANT INVENTION.

It was reserved for the man who first introduced flumes to furnish the key to the mystical problem. They have provided an economical, expeditious mode of transportation that is becoming universally recognized among mill owners. They enable mills situated ten miles from the railroad to compete successfully with those situated by the side of the track. Virtually, they bring the most distant sections of timber lands in close proximity to market. The numerous streams which flow down the canyons of the eastern slope of the Sierras are all capable of affording a sufficient supply of water for fluming purposes, if dams are properly arranged so as to utilize the present waste. The mills that are located back in the

heart of the timber region, and that depend exclusively upon flumes for transportation, are Geo. Schaffer's, Richardson Brothers', McFarland's, California and Nevada Lumber Company's, and the Alder Creek Mill Company's.

#### A FLUME.

Perhaps as fine an example of a flume as can be selected is that of the Cedar Creek Mill Company. It commences a short distance above their mill on Alder creek, one of the main branches of Prosser creek, about three miles north of Truckee. It is of the "V" form; experience having demonstrated this form to be superior in strength and durability, to the box flume. It is six inches wide at the bottom and three feet at the top. The boards forming the side are thirty-four inches wide, and one and a half inches in thickness. The flume rests upon a solid foundation of timbers, and is, perhaps, the most substantially built of any in the region. It is fully five miles long, and ends a short distance below the mouth of Prosser creek, depositing the lumber along side the railroad. The grade is very uniform throughout the entire distance, averaging about one and a half inches to the rod. The evenness of the grade prevents the "clogging," which is so common in most flumes. Timbers forty feet long and seventy-four inches square, and plank twenty-six inches wide will float with perfect ease. The proprietors assert that one hundred thousand feet of lumber, or five hundred cords of wood, can be delivered through the flume in twelve hours. It was only forty days, in course of construction, and cost \$20,000. It requires about fifty inches of water to successfully operate the flume.

#### GIGANTIC FLUMING ENTERPRISE.

The twenty odd miles of flume that are daily delivering lumber at the railroad near Truckee have induced capitalists to propose a mammoth fluming undertaking. It is no less than the construction of a flume from Lake Tahoe to Steamboat Springs, a distance of sixty-five miles. The water would be taken from the lake at Tahoe city, thence down the canyon of the Truckee river, past Truckee and Reno, and finally land its freight at Steamboat Springs, twelve miles from Virginia City. Lake Tahoe is naturally tributary to Truckee. In shores, one hundred miles in circumference, and the region included in its basin, and forming its watershed, comprise from four to six hundred square miles of

#### CONTINUOUS FORESTS.

Truckee lumbermen have never drawn upon this vast supply of timber because a sufficient amount could be obtained nearer home. As soon as this home supply begins to diminish, vast quantities can be readily obtained from Tahoe. The lake is navigable for the largest craft at all seasons of the year, and immense rafts of lumber can be towed from point to point with little expense. Complete the proposed flume, and the produce of a score of mills could be landed almost in the heart of the Nevada market. Lumber, mining timbers, shingles, lath, wood, and all the various articles required by the railroads, mines, and for building purposes, could be shipped without further attention or assistance than merely placing them in the flume.

#### RIVER DRIVING.

Bragg & Folsom, at Camp 18, L. E. Doan & Co., at Boca, and Truckee Lumber Company, at Truckee, employ nature's flumes in the shape of the Truckee and Little Truckee rivers, and Prosser creek, to bring down their saw logs. Six, eight, ten, and in some cases fourteen miles from the mills, are the logging camps. The trees are sawed down instead of being chopped. They are easily trimmed of their branches, and the tree is marked off into suitable lengths for logs. Good trees will average five and six logs to the tree, each log being sixteen feet long. Cross-cut saws are used in felling the trees and sawing them into logs.

#### A LOGGING CAMP

is a lively place. Thirty-eight men are employed by the Truckee Lumber Company, and about the same number by the other companies. Romantically situated in the depth of the forest, these camps contain houses for the men and shelters for the oxen. Harder and steadier work is seldom found than logging. Five yoke of oxen make a team, and these are hitched to ponderous wooden-wheeled trucks, capable of hauling from five to seven logs. It is remarkable how easily the great logs are rolled upon the trucks by the experienced loggers. The oxen have to do the work, and the men have only to adjust the chains and timbers and tell the oxen when to pull. If the trees grow on the top of high table-lands, as they do all along the Truckee,

#### CHUTES

Have to be employed to get the logs to the river. A chute is a very expensive,

but an indispensable affair. They are troughs or slides extending from the top of the mountain to the river, and the logs placed in them at the top glide to the bottom with inconceivable rapidity. Made of two logs partially imbedded in the earth, side by side, the logs are hewed so that the two sides slope outward from each other, forming a smooth bed or groove. These logs are spiked and bolted together in the strongest manner possible, and the iron used in their construction forms no inconsiderable portion of the bill. Frequently fifteen and sixteen hundred feet long, they are sometimes nearly half a mile in length. They incline according to the slope of the mountain side, at angles varying from forty-five to sixty degrees. A log will descend fifteen hundred feet in from five to six seconds, or at a rate of over two miles per minute. The terrible friction of the sliding monster, gliding with such wonderful velocity, strikes fire at every point of the chute, and a column of smoke follows its path. When at last the log reaches the water, its momentum is such that a volume of spray rises forty feet into the air, and, projected forward, forms a most perfect plume, which the sunlight tints with rainbow hues.

#### SUBSTANTIAL DAMS.

The logs are floated down the river to a point a few hundred yards above the mill, and here a dam must be built in order to form a pond or reservoir to catch the logs and furnish them for the mill. These dams are usually built in the form of a crib, of the heaviest timbers, strongly bolted with iron, and the interstices of the crib are closely filled in with rock and earth. The Truckee Lumber Company's dam is 180 feet in length, 50 feet wide at the bottom, 22 feet at the top, and is 14 feet high. It cost \$7,000, and the capacity of the reservoir thus formed is 2,000,000 feet. The Truckee Lumber Company have also two dams up the river which cost \$6,500 each. In constructing the dam at Boca, trees each one hundred feet long were packed as closely as possible, lengthwise with the channel. Across these a crib of timbers twenty five feet wide and fifteen feet high was made. The interstices being substantially filled, a road or causeway forms the top. The cost was \$11,000.

#### FRANCHISES

Have been granted to several of the lumbermen, guaranteeing water privileges.

Among the most important of these is the franchise granted to the Boca Mill and Ice Company, of the use of the waters of the Little Truckee. This stream gives Boca its natural advantages, and taps a lumber region of extraordinary value. Rising in Webber and Independence lakes, the former thirty and the latter twenty-five miles distant, the upper portion of its course is lined with forests. It carries, at its mouth, nearly two-thirds as much water as the Truckee, and in many respects is a better stream than the latter for rafting saw logs or wood. The franchise was granted in consideration of certain improvements to the value of \$25,000, which were to be made in clearing the channel and in damming Independence and Webber lakes so as to regulate the supply of water. Other parties using the river must pay tolls, at the rate of sixty cents for each 1,000 feet of lumber, and thirty cents per cord for wood. All the logs of the Boca mill and Ice Company are obtained from ten to fourteen miles distant, and rafted down the stream.

#### FOREST LAWS.

The question as to the rights to timber lands is one that should be better understood by our law makers. As the laws of the United States now stand, a man is forced to commit downright perjury or practice a farce that would smack of swindling if it were not so ridiculous. Land is considered, lawfully, as either mineral or agricultural. Clearly, these summit lands, composed mostly of granite and conglomerates, are not mineral lands. Quite as clearly, lands that are at an altitude of five or seven thousand feet above the sea, that are covered with snow for nearly six months every year, and that, to use a common phrase of Slim Jim's, afford "a poor pasturage for berrers" cannot be classed as agricultural.

#### THE PRE-EMPTION FARCE.

And yet, to acquire a government title to a quarter section of this valuable timber, a man must swear that the lands are more valuable for agricultural and grazing purposes than for mineral; must go through the form of building a house and of sleeping and living in it; and must fence and cultivate a sufficient amount to satisfy his conscience at the time of "proving up." Is it strange that men do their best to evade such absurd laws? Is it to be wondered at that the "house" is often a rude hut of logs built against a large rock? or that the stipu-

lated "window" is stuck in between the unchinked cracks? or that the land is "fenced" with a few broken limbs, or brush, "cultivated" with a pointed stick and "sowed" with ground barley or beans?

#### RAILROAD LANDS

Are thrown fairly upon the market at prices varying from \$2.50 to \$7 per acre. These lands may be honestly bought, and one firm, the Boca Mill and Ice Company, have bargained for no less than forty two sections. Perhaps, while the railroad sells these odd sections, the even sections belonging to the government cannot be obtained except by fraud, perjury or some rascally ruse. People should be permitted to buy the lands. They are needed at present while the timber is valuable. The railroad company deals much fairer with the lumberman than does the government. If a man decides to pre-empt he pays \$25 for pre-emption and surveys; \$25 for publication papers; at least \$100 for proving up his claim to the satisfaction of the land commissioner; and finally, after all this circumlocution and a year or more of delay and vexation, he still has to pay the government 2.50 per acre, and can only obtain one hundred and sixty acres. Having gone through with the ordeal of pre-emption, his land often costs more than it would have done if bought of the railroad.

#### RASCALITY.

After taking the preliminary steps, a man has the right to "use" the land, prior to purchasing, or to exhausting his pre-emption rights. Is it at all improbable that men have sometimes taken these preliminary steps, cut off all the valuable timber, disposed of the logs and then filed an abandonment and commenced the pre-emption of a new quarter section?

#### STUMPAGE

Is a mere farce! It is an obsolete term, and formerly meant a fifty cent tax for every tree cut on government land. The oldest inhabitant never heard of stumpage being collected. It is a cruel, unjust tax, and government officials have to much good sense and sound judgment to attempt to enforce it. For cutting five trees a man would have to pay as much as for an entire acre of densely timbered railroad land. The only alternative is "settlement" and "cultivation," and the climate, the soil and the altitude render cultivation and settlement impos-

sible. Legislators must understand the wants of this timber region and provide for them, else the day is not far distant when the government lands will have been stripped bare and Uncle Sam have received "nary a red."

#### MILLMEN BLAMELESS.

Mill owners, so far as I can learn, are wholly blameless in this matter. Some of the leading ones have even gone so far as to refuse to buy logs except of men who have fully exhausted their pre-emption rights. This does away with the dodge of abandoning. Many let their employees pre-empt, and then pay them a hundred dollars or so besides their expenses. The leading mills in the vicinity of Truckee have recently effected a

#### MAMMOTH LUMBER COMBINATION.

The corporation is known as the Sierra Valley Lumber Association. It purchases the lumber from the mills at certain fixed rates, and after deducting a small percentage of the gross receipts for necessary expenses, pays the balance to the shareholders. All the lumber interests in this region during the next two years will depend upon its success. The compact is drawn up in strong legal terms, and will be strictly adhered to in every particular. Its trustees and officers are men of the stanchest integrity and of many years experience in the lumber business.

#### THE MILLS.

Included in the association are some of the finest mills on the coast. They are the very life of Truckee, and support nearly eight hundred employees. The Truckee Lumber Company alone employs one hundred and twenty-five men. Here and there along the Truckee river eight chutes have been constructed to bring their logs down the mountain sides. These chutes cost from \$1,500 to \$2,500 each, and enable one to form a faint conception of the grand scale on which this mammoth company do business. Their mill is 54 by 154 feet in size, and two sets of 60-inch circular saws are used for cutting the logs. The daily capacity of the mill is 75,000 feet of lumber. During this year the company contracts to furnish the association with 7,000,000 feet, and next year with 8,000,000 feet of lumber. The saws used cost \$300 apiece; and to prevent delay, six extra saws are kept constantly on hand to replace those in use in case of an emergency. The machinery is run by a 16-foot overshot



wheel of about 120 horse-power, and a 5-foot turbine wheel of 200 horse-power.

#### SASH, BLIND AND DOOR FACTORY.

About two hundred yards below the mill is a most complete and extensive sash factory and planing mill. The motive power here is water applied as before to an overshot and turbine wheel. The factory contains five molding machines; two of Richardson & Merriam's best planers; three of Smith's mortisers and three of his tenon machines; one large door-planer, capable of dressing three hundred doors per day; three cut-off saws, and three rip-saws; one band-saw; one sand-papering machine for doors and another for panels; two iron-turning lathes and one wood-turning. The building is 210 feet long by 45 feet wide, and contains, in addition to the above, one of Huntington's best shingle saws, and a fine lath machine. About forty million shingles and ten million lath have been sent from the factory since its existence. They can turn out daily 200 doors and as many sash and blinds. About forty men are constantly employed. Besides shingles, lath, doors, sash and blinds, they turn out an infinite variety of work, such as rustic, molding, siding, flooring, ceiling, scroll-sawing, turning, fancy pickets, brackets, etc.

#### MILL POWER AND CAPACITIES.

The Boca Mill and Ice Company's mill runs both by steam and water-power. It has a daily capacity of 40,000 feet of lumber, and 10,000 feet of lath. Two planing machines are kept busily at work dressing and preparing the lumber. They will cut 5,000,000 feet this year, and 8,000,000 next.

The Alder Creek Mill Company have a steam mill operated by three steam engines which work in perfect unison. They have two circular saws, an edger, planing mill and shingle mill. The latter, when run day and night, turns out 38,000 shingles in twenty-four hours. The daily capacity of the mill is 40,000 feet, but they have sawed 6,000 feet in one hour. They agree to cut 4,000,000 this year, but will cut considerably more than that amount. Next year they contract to saw 8,000,000 feet.

Richardson Brothers have recently moved their mill from the Summit to a point about five or six miles southeast from Truckee. They have very fine steam-power, and will be able to cut 40,000 feet of lumber daily. The association

is to receive from their mill 3,000,000 feet this year and 4,000,000 next.

George Schaffer has an excellent mill and has cut nearly 40,000,000 feet of lumber since he came to Truckee. During this year he will saw 4,000,000 feet, and next year 5,000,000. The daily capacity of his mill is rated at 35,000 feet. He has a flume leading to his mill and another to the railroad. Their aggregate length is about seven miles.

McFarland's mill has a capacity of 25,000 feet daily, and during the next two years is to deliver to the association 5,000,000 feet.

Bragg & Folsom, at Camp 18, lost their mill by fire last year, but with remarkable dispatch rebuilt and resumed work. The capacity of their mill is rated as high as 45,000 feet, the highest of any single mill on the river. They furnish the association 5,000,000 feet during 1874, and 7,000,000 feet during 1875.

The California and Nevada Lumber Company have a first-class mill on Prosser Creek. Its power may appropriately be termed

#### MULTUM IN PARVO.

It consists of a Leffel turbine wheel only ten inches in diameter. When it needed repairing it was brought to Truckee by Mr. Loukee in his carriage, and was about the size of a small cheese. Under a head of one hundred and fifty feet this miniature water-wheel readily turns the heavy machinery. The capacity of the mill is 30,000 feet daily. About 6,000,000 feet have been contracted this year to parties in Nevada, so none is furnished to the association, but next year 8,000,000 feet will be delivered.

John Kneeland's mill, at Coldstream, is commonly known as the Stanford mill. Its capacity is 30,000 feet, and it furnishes 1,000,000 feet this year, and 1,500,000 feet next year.

Joseph Gray's mill is the tenth that belongs to the association, and is the furthest from Truckee. Situated at Camp 20, it has a capacity of 25,000 feet, and furnishes 1,000,000 feet during each of the two years.

#### 83,500,000 FEET OF LUMBER

will be furnished this year and next to the association by these ten mills. Each forfeits \$1.30 for each thousand feet which it fails to deliver of the stipulated amounts; hence each has placed its figures at the lowest estimate. Should the mills all run at the full capacity, they could turn out 405,000 feet in one day.

The Sierra Nevada Lumber Association receives this vast quantity of lumber, after it is loaded on the cars, and agrees to find

#### THE MARKET.

They have just purchased the extensive lumber yard at Salt Lake, owned by Jones & Foreman. This will be an extensive market, as the railroad company place the rates at a very low figure. Experience demonstrates that the Truckee lumbermen can compete successfully with the Chicago trade even as far east as Denver. Salt Lake and this eastern country is likely to want a continuous and increasing supply every year. The great basin is treeless and almost wholly dependent upon Truckee for its timber supplies. Reno, Wadsworth, Winnemucca and Palisade, will each require heavy shipments. Any one who has ever descended any of the great silver mines of Nevada has been surprised at the vast quantity of timber used in the way of braces, supports, etc. These will mostly be furnished in the future by the association.

#### RAILROAD RATES.

Lumber is usually shipped by the car load. The rates from Truckee are as reasonable as possible. A car load to Reno costs \$20; to Wadsworth, \$34; to Winnemucca, \$91; and to Palisade, \$105. Six thousand feet of green lumber, or 8,000 feet of seasoned, usually makes a car-load. Ten tons' weight is the average load, but 22,000 pounds goes at the same rate. All, however, that is put on over this amount must pay double rates.

#### COST AND REALIZATION.

Each mill pays a certain price for logs delivered in their mill pond. Nearly all the mills let the loggers work by contract, but a few do the work themselves. The prices vary with the distance the logs are to be hauled, but range from 3.50 to \$5 per thousand. A leading firm pays \$4 to have the logs delivered in the river, and it costs but little more than twenty five cents per thousand to drive them to the mill pond. The cost of sawing varies according to circumstances, but perhaps a fair estimate is 2.25 per thousand. There can be no fixed value placed on the expense of piling in yards and loading on cars, because of the various circumstances in which mills and yards are situated. After the lumber is hauled by the cars it can be loaded at 2.50 per car-load, or possibly a trifle less. Perhaps as close a calculation could be

made would result as follows: It costs the mills to get the trees felled, logs cut and hauled, lumber sawed, piled, handled and loaded on cars, an average price of \$8 per thousand. Some will pay more than this and some less. The margin, however, is not all profit. The cost of constructing mills, dams, flumes and chutes, of purchasing machinery and implements, of paying employees, buying oxen and feed, of making repairs and of rebuilding after fires, is, in the aggregate, no small amount.

C. F. McGLASHAN.

#### A THRIVING MINNESOTA CITY.

Minneapolis, Minn., is thus described by a correspondent of the *Kansas City Journal of Commerce*:

Minneapolis is simply a hive of industry, manufacturing being the one interest of the city. The power to be utilized is the Mississippi river—including the falls of St. Anthony and rapids, a total descent of 64 feet—the hydraulic capacity of which has been estimated at 120,000 horse power—and the fact that this power can be used over and over again, shows enough to run the machinery of the continent—and enough to-day to drive the 4,000 mills of Great Britain, if located at Minneapolis. We can only find room for mention of the kinds of manufactures now in operation, as we saw them.

There are located and in operation in Minneapolis 16 saw mills, which, in 1873, turned out 189,909,782 feet of lumber, 14,554,250 shingles, and 32,843,150 laths. There are planing mills equal to any in the country; mills devoted exclusively to shingles, thus filling every condition for the manufacture of lumber.

Of flour mills there are 17 in operation with a capacity of 7,340 barrels daily. Last year they produced 646,000 barrels of flour, 57,150,000 pounds of feed, and consumed 3,545,000 bushels of grain. Here we saw the largest mill in America, that known as Governor Washburn's mill, owned by Governor C. C. Washburn,

of Wisconsin, which was built under the direction of Mr. Geo. H. Christian, who manages it. It is a solid stone structure 138 by 100 feet, and 90 feet high. There are in the mill 40 run of burr stones, 4 1-2 feet in diameter each, the whole driven by two bronze water wheels, called the Boyden wheel. The entire cost of the mill is \$225,000; daily capacity 1,400 barrels.

Besides the lumber and flour mills, there is a large woolen mill, a cotton mill, a paper mill, foundries, machine shops, mill furnishing and iron works, agricultural works, railway furnishing manufactory, pump factory, iron works, saw works, plow works, fence works, carriage works, furniture factories, boot and shoe factory, oil mill, tool factory, etc. These are the works in which Minneapolis is to-day engaged, and they make her the manufacturing city of the Northwest, with a capacity only limited by the population to be supplied—and she believes in her destiny and fully comprehends it. We believe in Minneapolis, and so will any one who goes there and simply keeps his eyes open.

#### THE PLANING MACHINE LITIGATION.

*From the Boston Lumber Trade.*

We presented our readers, several months since, the points at issue between the Woodbury Patent Planing Machine Company—owners by assignment of the patent, issued to Joseph P. Woodbury of Boston, April 29, 1873, for yielding pressure-bars in combination with a rotary cutter and a solid bed—and the National Planing Mill Defense Association, together with such facts and considerations as are presented by both sides in support of the positions respectively held by them. A brief resume of the case may be of interest to our readers.

Joseph P. Woodbury made an application in 1848 for a patent for a straight stationary bar to hold down lumber to be planed. This was re-

jected on the ground that the essential principle of the invention was covered by the application of Joseph E. Andrews, of July 27th, 1846, and by the English patent of W. H. Burnett, of 1845, and the American patent of B. Brown. Mr. Woodbury made no further effort to obtain a patent until 1870. The second clause of section 35 of the Patent Law, approved July 8th of that year, provided "That, when an application for a Patent has been rejected or withdrawn prior to the passage of this act, the applicant shall have six months from the date of such passage, to review his application, or to file a new one, and, if he omits to do either, his application shall be held to have been abandoned." Under this proviso, Mr. Woodbury, on the 5th of December, 1870, made another application, which, after remaining in the Patent Office for two years and nearly five months, was finally granted "in opposition," the Commissioner of Patents says, "to the judgment of the examiner, of the board of examiners in chief, and of the commissioner, but in obedience, to the decision of the Superior Court of the District of Columbia, in the ex parte case of J. Gray."

This patent, thus obtained, was assigned by Mr. Woodbury to the Woodbury Patent Planing Machine Company, with a nominal capital of four millions of dollars, but is contested by the National Planing Mill Defense Association, composed of over eight hundred firms whose aggregate capital would amount to over fifty millions of dollars per annum. These figures indicate that the suit, if it should ever come to trial, would be among the most important ever tried in any court in this country. We have it to say, however, that there is, at present, but little indication that the case will ever be tried. While the executive committee of the Planing Mill Association, by their counsel, have announced their readiness and have used every means to

bring on a trial, being willing to abide the issue of a single test case, the owners of the patent, on various pretexts, have secured delay, and by lowering their terms for licenses have sought for a compromise, until they have now come down to a basis such as, if it had been proposed at the outset and before the validity of their patent had been looked into, would doubtless have been accepted by the owners of planing machines throughout the country. These terms, however, are not now acceptable.

In addition to the elaborate and, it is believed complete defense which has been prepared by the able counsel of the association, we are permitted to refer to another fact of very great interest in this connection. We have referred in another column to the patent just issued to Mr. H. N. Worthen, of this city, and we learn that such arrangements have been made by the Executive Committee, with the owners of this patent that this improvement, which accomplishes all that is claimed by Woodbury's device, can be applied to any machine at a small expense and on conditions which, it is believed, will be satisfactory.

We learn that Hon. W. L. Proctor, has resigned the position of chairman of the executive committee of the association of planing-mill owners, and that W. N. Greene, Esq., of the extensive lumber firm of Bronsons, Weston, Greene & Co., of Burlington, Vt., Watertown, N. Y., and Ottawa, Ont., has been appointed to take his place. The third place in the committee has been filled by the appointment of Hon. W. W. Crapo, the owner of an extensive manufactory of lumber at Flint, Mich.

#### STEAM BOILER TESTING.

*From the Boston Commercial Bulletin, Sept. 19.*

At the exhibition of the Franklin Institute, in Philadelphia, a special trial of the strength and other qual-

ities of boilers and engines is to be made, in order to test the comparative merits of those on exhibition. Steam boilers are to be tested by a board of experts by what is known as the "evaporative test," that is by determining the amount of water that each evaporates per pound of coal consumed. A decision based on a trial of this kind, and by parties who have their own reputation as experts at stake, will create a sensation among makers of boilers, especially those who have patented articles. We understand that all the leading makes are represented, and, —what is quite natural,—that each of them is confident of coming out ahead. Success under these circumstances means a fortune, for economy in fuel, combined with safety, is the thing sought after in steam boilers.

#### OF INTEREST TO MICHIGAN LUMBERMEN.

The inspection law of Michigan contains the following clause :

(1524.) Sec. 16. Every person who shall sell or purchase any pine lumber, sold by qualities within any organized district, for shipment by water, without having the same inspected according to the provisions of this act, or who, not being an inspector general, deputy or sub-inspector within the district where such lumber is shipped, shall inspect any such lumber; and every person who shall willfully violate any of the provisions of this act, for each and every such offense shall be subject to a fine of not less than one hundred dollars, and not exceeding one thousand dollars, and costs of suits, which fine may be recovered in action of debt, to be commenced in the circuit court by *capias*, summons or declaration, in the name of the people of the state of Michigan; and upon the trial of every such action, proof of a shipment by water shall be *prima facie* evidence of a sale. It shall be the duty of the inspector



general and his deputies, to visit the various shipping points within his district during the shipping season, for the purpose of supervising the work of the several sub-inspectors, so that the inspection may be uniform; and it shall further be the inspector general's duty to see that the provisions of this act are strictly enforced.

Sec. 2. This act shall take immediate effect.

Approved April 10, 1873.

#### TIMBER TRADE OF NORWAY.

Recent Change in the Position of the Peasantry—Its Effect on the Trade.

*Correspondence of the London Times Trades Journal.*

MJONDALEN, Aug. 21, 1874.

SIR:—I am not in the timber trade, but being resident in Norway, and coming frequently in contact both with the merchants at the port of shipment who buy, and the peasant proprietors up the country who sell, the following remarks may perhaps not be without some interest to your readers.

The timber trade of Norway is carried on in a very different manner from the "lumber" business of America. In America the timber which covers extensive areas is looked upon as an incumbrance, which must be cleared away before the country can be settled; but in Norway the extensive pine forests are valuable properties, which from time to time are thinned down to certain dimensions, the younger trees being left to grow up to be again a source of wealth in future years. In America so long as there is a large annual immigration, gradually filling up the country, and encroaching more and more upon the forest lands, there must be timber felled; and so long as the price yields even but a meagre profit over the mere cost of transport to the port of shipment, this timber will be shipped. With the Norwegian peasant proprietor the case is quite different, for he need not and

will not cut down his timber unless he be sufficiently paid for it. The effect of this radical difference is that a shortening of the supply which, I observe from one of your recent numbers, the sawmill owners of Canada are attempting to bring about by a combination and mutual agreement to stop their mills for a time, will in Norway be brought about by the natural operation of economical laws.

In the course of the last few years there has been accomplished in Norway a complete social revolution. Norway can no longer be called a poor country. It is not so very many years ago that with a few exceptions in favorable localities the peasantry of the country were sunk in poverty and obliged to fell their timber to take out a subsistence.

The timber trade was then in comparatively few hands, so that, there being no competition between buyers, the peasant proprietors were compelled to sell at what would now be considered ridiculously low prices. The timber merchants thus buying in a very cheap market, and selling in a comparatively dear one, rapidly realized fortunes which even in wealthy England would by no means be considered trifling. This prosperity has borne its natural fruits. There has been a rush into the timber trade. Year after year has seen new houses established, and the older houses extending their operations. This altered state of affairs soon placed the ball at the feet of the peasant proprietors, who have not been slow to seize the advantage. They are no longer obliged to be content to accept whatever may be offered them, for buyers now compete with each other, so that season after season has seen prices steadily go up, and thus last year the peasant obtained for his timber more than three times as much as he was obliged to be content with less than ten years ago.

These increased prices have revolutionized the peasant's position. He

is no longer poor, and as a consequence of his increased means, can farm his arable land to better advantage. Formerly he could not make both ends meet without felling his timber; now he can afford to await. If he think prices are good enough he will sell, if not, he will let his trees stand and grow.

Prices are now so very much lower than they were a year ago, that the peasants refuse to accept them, and unless an improvement take place, very little timber will be cut down during the coming winter. Some trees will of course be felled, for there are still a few whose necessities will compel them, and others who having already speculatively bought the right to fell certain dimensions within a certain time have no choice; but the great mass of forest proprietors will not fell a single tree. They can lose nothing by letting them stand and grow, unless indeed it could be proved that prices will fall still lower and never again rise; for the timber's natural growth will yield them excellent interest. The practical result therefore must be that unless there be a considerable rally in prices, the timber shipped from Norway next year will be in proportion to what has been shipped in former years, an almost vanishing quantity.

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#### SOME REDWOODS OF THE PACIFIC COAST.

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Great inroads have already been made in the forests of the Pacific coast at many points; especially within easy sailing distance of San Francisco the available timber has been destroyed. There is, however, an immense belt extending from Russian river northward. Mills are located at every available point; and at the present moment in Humboldt bay, the great lumber port of the redwood belt, even the trees growing close to the little creeks and sloughs running into the bay have been cut. Thus logging becomes each year

more expensive and difficult. The supply is, however, so extensive, and the opportunities for opening new districts so great, when the demand for lumber will justify increased expense, that it is not probable our supply will diminish for many years. There are immense forests of redwood on both the Eel and Mad rivers, in this section, yet untouched. There is an immense belt also back of Trinidad. Thence northward the redwood becomes scattered until we reach the vicinity of Crescent City. Back of this place, and covering the low land, once evidently overflowed by the sea, between Pelican bay on the north and Crescent bay on the south, is an exceedingly heavy body of this timber. It extends up the flanks of the lower spurs of the Siskiyou mountains, which here put down to the sea, and ceases at an elevation of about 1,200 feet above tide. Many of the trees have a diameter at their base of thirteen and fourteen feet, and the average run of saw logs would be from six to eight feet.

This redwood belt abruptly ceases in the valley of Smith's river, a few miles south of the Oregon boundary, and from there northward it is unknown as a forest tree, though a few clumps are found over the Oregon line. Although to a causal observer the redwood appears the same wherever grown, yet there is a marked difference in the quality of that from different sections. Even in the same districts some groves are valueless, while others, not a mile distant, yield clear lumber. The tree, for instance, that grows in low or swampy ground is apt, from excess of moisture, to be swelled or hollow-butted, and to have more or less of rotteness and defect; while that on the rising or rolling land and the slopes of the mountains will be solid and free from blemish. Again, the timber cut from the lower end of the belt contains a greater percentage of refuse and less clear lumber than that from Humboldt, Trinidad, or Crescent City. There is

a variety of the *Sequoia sempervirens* back of Crescent City that is quite peculiar. The tree is of the ordinary size and leaf of the common redwood, but the wood itself is white and remarkably free from knots and imperfections.

Where the redwood grows in swamps and other moist places, there sometimes forms on its outside a remarkable excrescence called "redwood fungus." This appears in the shape of a huge knot or wart on the tree. It is a growth of the bark, not having any distinct grain. When cut into slabs this knot shows a mottled and deep red color, filled with little "bird's-eyes," remarkably beautiful, and bearing a high polish. When cut into veneers, it is used for panel-work on billiard tables, etc., and commands a good price. In the northern red woods one frequently sees bunches of fern and trailing plants growing on these knots, the fallen leaves lodging on the protuberance, having in time created a soil. These little gardens are very pretty. —*Overland Monthly.*

#### PLANS FOR IMPROVING THE FOX RIVER.

The committee on the Fox River improvement, appointed at the Oshkosh convention last July, met at Appleton September 16, in accordance with their motion of adjournment at Portage. Considerable discussion ensued as to the best method of making the improvement—whether by a continuation of the system of wing dams, or by an independent canal, according to the recommendation of Gen. Warren; but all finally agreed upon the plan of extending the canal, through from Portage City to Prairie du Chien. The following is a brief outline of the plan, as adopted: To secure five feet navigation at low water, all to be canal, 118 miles; canal 70 feet at bottom, 80 feet at top; locks 160 by 35; total lock lift 175 feet; sides

of canal in the cuts paved to allow the use of steamboats. Cost estimated at \$4,164,270. In order to finish the work in the third year, it will require \$2,082,130 the first year, and \$60,000 annually thereafter.

#### THE CRISIS IN THE LUMBER TRADE.

Remarks of A Leading Minnesota Lumberman Before the "Chicago Lumbermen's Exchange"—Importance of Combining to Restore Tone to the Trade—A Good Argument Against the Reciprocity Treaty.

At a recent meeting of the "Chicago Lumbermen's Exchange" Mr. E. W. Durant of Stillwater, Minn., made an effective address, the substance of which we are able to give our readers:

He stated that the manufacture of lumber on the upper Mississippi and its tributaries during the past season was over 1,000,000,000 feet—one-fourth the entire product of the United States. This last amount has been put on the market at prices leaving a very small margin of profit for the producers. In many instances the returns received for the lumber were insufficient to pay the stumpage. The lumbermen of Wisconsin and Minnesota had held conventions and had proposed to unite in reducing the cut of pine timber for the ensuing season thirty-three per cent. There would be a large stock of lumber on the market at the close of the present season, and many lumbermen outside any organization would curtail their operations next winter from a third to one-half. The gentlemen present from those states, recognizing that Chicago was the largest lumber market in the world, had come here for the purpose of laying before the dealers here the plan suggested by the National Association at its session just closed. This was to effect auxiliary organizations throughout the country for the purpose of uniting in the work of re-

storing the lumber trade generally to a healthy condition, and to urge upon owners of timber lands and the manufacturers and dealers in lumber the necessity of unity of action to arrest the present waste of pine timber, which was going on at a rate that would soon result in the entire destruction of our magnificent pine forests. It had been ascertained from statistics carefully collected, that the amount of standing timber on the Mississippi above the falls of St. Anthony, on the St. Croix and its tributaries, and the Chippewa and Black Rivers, and their tributaries footed up twenty-one billion feet. At the present rate of cutting this would be wholly exhausted in the next twenty years. A similar condition of affairs was reported from all the pineries in the country. These figures in themselves disclosed the necessity of prompt and decisive action the part of the lumbermen in the direction already suggested.

Mr. Durand then directed attention to the movement being made for the modification of the so-called reciprocity with Canada—which was reciprocal only in name—to the prejudice of the whole American interests. Canada offered us the use of eighty miles of canal in return for the use of nearly 1,000 miles of canal. The principal use we could make of the Welland canal was to ship through it to England our cereals, which that country was obliged to have. Their interest in our granaries was sufficient to warrant the supposition that they would eventually gladly open these canals in order to cheapen breadstuffs for their own people. As lumbermen, those present had a direct interest in this matter. Part of the consideration demanded by Canada was a repeal of the present duties on Canadian lumber. The receipts at the custom house on Canadian lumber for the past year amounted to \$2,500,000. The Canadian lumbermen paid for their "limit," an insignificant

amount as compared with the amounts paid to the government of the United States for pine lands and the taxes assessed on them. If the ports of the United States were open to admit Canadian lumber duty free, the result would be not only a contest for supremacy between the British and American capitalists, but further, it would bring well-paid American labor into competition with the low priced labor of the British Provinces. It would paralyze the lumber trade of the United States, and would work disaster to the agricultural as well as lumber interests. Nine-tenths of the cost of producing lumber in the United States was paid for labor; not only for labor in the forest, in the mill, and in getting the lumber to market, but also in the amount paid labor for the farm products consumed by the workmen. There were no two interests so closely allied as were the lumber interests and the agricultural interests, and every disaster to the former would fall upon the latter. The labor itself is mainly that of the farmers, either in the production of their products consumed by the lumbermen or in the labor of the farmers themselves employed during the winter in getting out lumber. In Minnesota and Wisconsin alone 25,000 men are directly employed in lumbering, and 250,000 people are dependent upon it. The lumber interest pays taxes to sustain our government, its laborers are clad in goods on which tariff is paid, and the machinery we use is subject to a duty. We feel, therefore, that we are entitled to protection against the cheap labor of the provinces, and the machinery of foreign manufacture, and the competition of a business that is not taxed for the support of our government. We feel also that it is to be the interest of this country that the tariff should be maintained to prevent the destruction of this great business interest, yielding large taxes to the govern-



ment, and giving employment directly and indirectly to a quarter of a million of people.

### FALL PRODUCTION OF SHINGLES IN BROWN COUNTY, WIS.

*Correspondent of the Green Bay State Gazette.*

The yield of shingles—formerly the staple production of this county, but latterly giving place to agriculture and hard-wood manufactures—promises to be light this fall. Thirteen mills are now shut down, and we learn that six others will be before the close of the month. Others have nearly exhausted their stock of logs, and must soon close for the year. Lily Lake mills, Mr. Geo. R. Cook, is the only one running chiefly on shingles with stock enough to last until frost comes. Tremble & Weed have logs but they do little on shingles. Munroe & Bros., have trucked logs enough to last two months longer. Stetson, in Glenmore has been logging and trucking for three months but only keeps a few days ahead. Geo. Cook's mill averages 140,000 a day, Monroe Bros, Big Suamico, averages 75,000 a day, Tremble & Co., averages 40,000 a day, Weed averages 30,000 a day, Smith Glenmore, averages 85,000. The average product of the thirteen mills shut down may be put down at 13,000 making a total shortage of production of 160,000 a day.

#### OCONTO COMPANY MILLS.

There is great activity at the Little Saunico mill, late A. C. Conn's preparatory to the introduction of shingle machinery. They have now one million and a half of logs to begin with.

#### ELDRED'S NEW MILL

averages 100,000 shingles a day, but they experience considerable difficulty in getting logs to the mill.

#### GARDNER, PENSABEE.

The shingle mill is shut down for a few days until more logs can be got down the river. The accident to the

big circular is not yet remedied, so only a part of the lumber mill is running.

#### OCONTO RIVER MILLS.

The water mill is expected to start up again in a few days. John Leigh has got over two million lumber down the river lately.

### AFFAIRS AT MUSKEGON, MICH.

The *News and Reporter* says :

The lumber operations here are drawing to a close ; not only have the mills that were running nights in the early part of the season discontinued night-work, but the majority of the mills will shut down in about two weeks, and work on the boom will also be discontinued, and a long season of idleness, and consequent indigence will set in for the men and their dependant families. The rear end of the drive reached this place on Friday of last week. There are a less number of logs hung up this year than at any previous time for several years past. The amount of lumber and logs at Muskegon that will be carried over in 1874 will exceed that of any previous year, and logging operations will be carried on on a small scale next winter.

**LARGE PINE LAND SALE.**—Capt. C. S. Cowan, of Stillwater, has purchased of S. I. Smith, of Lyons, Iowa, all his pine lands tributary to the St. Croix in Minnesota and Wisconsin. It is estimated that there are between 30,000,000 and 40,000,000 feet of No. 1 pine on the land purchased. The price paid was \$50,000 ; \$10,000 down and the balance in four yearly instalments.—*State Journal.*

Examine the "Lumbermen's Register" at the end of this volume and report additions or corrections to the WISCONSIN LUMBERMAN PUBLISHING CO., 64 Oneida street, Milwaukee, Wis.

## LUMBER MARKET.

Milwaukee, Wisconsin.

MILWAUKEE, Oct. 15, 1874.

The Milwaukee lumber market is steady with no material changes since our last quotations. Trade is moderately active but not what it should be at this season of the year. Cargo arrivals are just about to the demand of buyers. Dealers, are beginning to be more philosophical than formerly and are calmly waiting for better times; although it is generally conceded that the "better times" are yet a long way off. There is not much prospect of any decided improvement in the retail trade until after January 1st. The yards are, as a rule well stocked, and if trade should open active in the early part 1875, the Milwaukee dealers will be in fair condition to supply all demands made upon them. We quote yard prices as follows:

Common boards.....	12 00@
Joist and Scantling, 12 by 16 ft.....	12 00@
do do 18 ft.....	18 00@
do do 20 ft.....	14 00@
do do 22 to 24 ft.....	15 00@ 17 00
Fencing.....	12 00@
1st and 2d clear dressed siding.....	25 00@
1st com. do do.....	20 00@
2d com. do do.....	16 00@
1st com. flooring.....	35 00@
2d do do.....	28 00@
3d do do.....	23 00@
1st and 2d clear boards.....	45 00@
3d do do.....	35 00@
Narrow select finishing boards.....	28 00@
Wide select com.....	20 00@ 48 00
1st and 2d clear 1½, 1½ and 2 inch.....	45 00@
3d clear do.....	35 00@
Wagon Box Boards.....	30 00@ 35 00
A stock do.....	35 00@
B do do.....	25 00@
C do do.....	25 00@ 12 00
Square pickets.....	13 00@
Flat pickets.....	12 00@
Lath ¾ M pieces.....	2 50@ 2 75
A shingles, ¾ 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

Saginaw, Michigan.

From the Saginaw Courier.

ROUGH LUMBER, CAR LOTS.

Three upper qualities.....	\$33 00
Select boards.....	28 00
Common stock 12 inch.....	11 00
Fencing strips.....	11 00
No. 1 flooring strips.....	25 00
No. 2 flooring strips.....	20 00
Common boards.....	10 00
Coarse common.....	7 00
Timber, joist and scantling 12 to 18 ft.....	10 00
do do do 20 ft.....	12 00
do do do 22 to 24 ft.....	13 00
Lath.....	1 75

## ROUGH AND DRESSED LUMBER AT YARDS.

## ROUGH LUMBER.

Three upper qualities.....	\$35 00
Common boards.....	10 00
Common 12 inch stock boards.....	12 00
Fencing strips.....	7 00
Call boards.....	5 00
Scantling, joist and timber, 12 to 18 feet.....	10 00
do do do 18 to 22 feet.....	12 00
Lath.....	1 75

## DRESSED LUMBER.

Siding No. 1 clear.....	17 00
" No. 2.....	14 00
" No. 3.....	10 00
Flooring No. 1, 6 in.....	25 00
" No. 2, select 6 inch.....	20 00
" No. 3 do common.....	15 00
Ceiling No. 1, clear.....	30 00
" No. 2.....	20 00
" No. 3.....	10 00
Clear boards, s 1 side, 7 to 20 in.....	35 00
No. 2 ".....	30 00
No. 3 boards, select 7 to 20 in, s one side.....	25 00
Common boards.....	15 00

Chicago, Ill.

The *Inter-Ocean* quotes the Chicago market as follows:

FREIGHTS — Were firm. Offerings of vessels light and rates firm at the recent advance.

Oconto.....	\$2 50
Manistee.....	1 75
Ludington.....	1 62½
Muskegon.....	1 50
Pentwater.....	1 75
White Lake.....	1 75
Saugatuck.....	1 75
Grand Haven.....	1 50
Menominee.....	1 75

LUMBER—The market throughout the entire week was active to the extent of the supply, which, however, was only moderate. The demand was largely for joist and scantling; ready sales being made at \$9. Strips and boards quotable at \$9@13 for common to medium, and \$13.50@16 for fair to choice grades. Shingles were firm at \$2.60@2.96 for common to choice "A" sawed. Lath firm at \$1.62½@1.70. The market closed steady and firm, with all sold. The sales reported were:

Cargo schr Calkins, from Manistee, 15 m joist and scantling at \$9; 200 m lath at \$1.70. Sold by Blanchard, Borland & Co.

Cargo schr Two Brothers, from Manistee, 200 m joists and scantling at \$9; 12 m 2x12x20 ft at \$10.50. Sold by Blanchard, Borland & Co.

Cargo schr Live Oak, from Manistee, deck load 75 m ft selected at \$19.50. Sold by Blanchard, Borland & Co.

In the yards an active trade was reported. Common grades sold readily,

although the demand was largely for fencing, of which the stocks are very light. Prices firm.

## YARD PRICES.

First clear.....	\$53 00@55 00
Second clear.....	48 00@50 00
Third clear, 1 in.....	37 00@40 00
Third clear, thick.....	43 00@45 00
Clear flooring, 1st and 2d together, rough.....	38 00@40 00
Clear siding, 1st and 2d together.....	22 00@23 00
Common siding.....	18 00@20 00
Flooring, first common, dressed.....	33 00@35 00
Flooring, second common, dressed.....	28 00@30 00
Wagon-box boards, 16 in. and upward, select.....	35 00@40 00
Select, 1-in.....	26 00@30 00
Select, thick.....	32 00@35 00
Stock boards, A.....	32 00@35 00
Stock boards, B.....	28 00@30 00
Common boards.....	10 50@12 00
Joist, scantling, small timber, etc 16 feet and under.....	10 50@12 00
Fencing.....	10 50@12 00
Joist and scantling, 18 to 24 ft.....	14 00@20 00
Pickets, square.....	@11 00
Pickets, flat.....	12 00 13 00
Cedar posts, split.....	16 00 18 00
Cedar posts, 5 inch.....	20 00@
“ 6 inch.....	25 00
“ 7 inch.....	30 00
“ 8 inch.....	35 00
Lath.....	1 75@ 2 25
Shingles—Sawed No. 1.....	1 50@ 1 75
“ “A”.....	2 90@ 3 25

Shingles on track are steady at \$2.75@3.00 for A star, and \$1.25 for No. 1 sawed.

## WHITE WOOD.

Box boards.....	40' Clear.....	35@ 40
Common.....	25' Culls.....	10 14

## HARDWOOD.

OAK.		ASH.	
Plank, common.....	@ 25	Board and planks 30@ 40	
Plank, clear.....	48	Wagon poles, each, 55 60c	
Bolster.....	45	Flooring, 6-in dr'd and matched.....	45
BLACK WALNUT.		CHERRY.	
Culls.....	25@ 35	Flooring, 3 and 4 inch dr'd and matched.....	50
Common.....	50	“ 5 7 5 matched.....	50
First and 2ds.....	60	HICKORY.	
Clear.....	75	Culls.....	20
Counter tops, (selected).....	100	Common.....	40
Flooring, 6-in dr'd and matched.....	80	First and 2ds.....	30
Flooring, 3 and 4 inch dr'd and matched.....	65	Clear.....	65
MAPLE.		BASSWOOD.	
Plank.....	30	Plank (selected).....	50
Flooring, 3-in dr'd and matched.....	40	Axles, per pair.....	1 50
Flooring, 3 and 4 inch dr'd and matched.....	45	BUTTERNUT.	
		Basswood.....	12 25
		Butternut.....	25 60

## Albany, New York.

From the Albany Argus.

The canal receipts continue to increase over the receipts for the corresponding weeks in 1873. The aggregate difference between the receipts of the two seasons to Oct. 8th is almost nominal. Hence forward to the close, last year, the receipts were about 70,000,000 feet.

At Chicago the reported receipts of lumber, by lake, to the 6th of October were

844,962,100 feet against 898,390,000 feet the year previous; the shipments from January 1st, are 454,722,000 feet against 445,189,000 feet the previous year.

Canal freights from Buffalo to Albany are \$3.88@4.00 M feet for pine and \$4.88@5.00 for hard wood; from Oswego, \$2.75.

The receipts at Albany by the Erie and Champlain canals during the first week of October were:

Bds. & Sc'tl'g ft. Shingles M. Tim'r c ft. Staves, lbs.	
1873.. 11,053,000 778 .....	4,929,800
1874.. 13,015,500 2,108 .....	

Of the boards and scantling received 9,592,200 feet were by the Erie, and 3,433,300 feet by the Champlain canal.

The receipts at Albany by the Erie and Champlain canals from the opening of navigation to Oct. 8th, were:

Bds. & Sc'tl'g ft. Shingles M. Tim'r c ft. Staves, lbs.	
1873.. 275,442,400 9,438 .....	7,500 641,000
1874.. 271,911,700 14,686 .....	

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

To New York per M.....	\$ 1 0@ 1 25
To Bridgeport.....	1 50@ 1 75
To New Haven.....	1 50@ 1 75
To Providence.....	2 25@ 2 50
To Pawtucket.....	2 75
To Norwalk.....	1 50
To Hartford.....	2 25
To Middletown.....	2 25
To New London.....	2 50
To Philadelphia.....	3 75
To Baltimore.....	3 25
To Richmond, Va.....	4 00
To Boston, softwood.....	5 00
To Boston, Hardwood.....	5 00

The present current quotations of the yards are:

Pine, clear 1/2 m.....	\$52 00@55 00
Pine, fourths 1/2 m.....	47 00@50 00
Pine, selects 1/2 m.....	43 00@45 00
Pine, good box 1/2 m.....	20 00@25 00
Pine, common 1/2 m.....	14 00@16 00
Pine, clay board strips.....	45 00@48 00
Pine, 10 inch plank, each.....	38@ 43
Pine, 10 inch plank, culls, each.....	21@ 23
Pine, 10 inch boards, each.....	26@ 31
Pine, 10 inch board, culls, each.....	16@ 18
Pine, 10 inch boards, 16 ft, 1/2 m.....	25 00@27 00
Pine, 12 inch boards, 16 ft, 1/2 m.....	23 00@29 00
Pine, 12 inch boards, 13 ft, 1/2 m.....	25 00@28 00
Pine 1 1/4 inch siding, select, 1/2 m.....	40 00@44 00
Pine, 1 1/4 inch siding, common, 1/2 m.....	16 00@18 00
Pine, 1 inch siding, selected, 1/2 m.....	35 00@42 00
Pine, 1 inch siding, common, 1/2 m.....	16 00@18 00
Spruce boards, each.....	@ 15
Spruce plank, 1 1/4 inch, each.....	@ 17
Spruce plank 2 inch, each.....	@ 21
Spruce, wall strips, each.....	@ 15
Hemlock boards, each.....	@ 12
Hemlock boards, 4x6, each.....	@ 34
Hemlock joists, 2 1/2 x 4, each.....	@ 14
Hemlock wall strips, 2x4, each.....	@ 12
Hemlock plank, 2 inch, each.....	@ 30
Black Walnut, good, 1/2 m.....	75 00@85 00
Black Walnut 1/2 inch, 1/2 m.....	75 00@78 00
Black Walnut, 1/2 inch, 1/2 m.....	75 00@80 00
Sycamore, 1 inch 1/2 m.....	@ 35 00
Sycamore, 1/2 inch 1/2 m.....	@ 32 00
White wood, chair plank, 1/2 m.....	65 00@68 00
White wood, 1 inch, and thick, 1/2 m.....	38 00@45 00

White wood, 1/2 inch, 1/2 m.....	35	00@40 00
Ash, good, 1/2 m.....	38	00@43 00
Ash, second quality, 1/2 m.....	25	00@30 00
Oak, good, 1/2 m.....	38	00@45 00
Oak, second quality, 1/2 m.....	25	00@30 00
Cherry, good, 1/2 m.....	60	00@70 00
Cherry, common, 1/2 m.....	25	00@35 00
Birch, 1/2 m.....	25	00@30 00
Beech, 1/2 m.....	20	00@25 00
Basswood, 1/2 m.....	22	00@25 00
Hickory, 1/2 m.....	40	00@45 00
Maple, 1/2 m.....	22	00@30 00
Chestnut, 1/2 m.....	40	00@45 00
Shingles, shaved pine, 1/2 m.....	7	00@7 25
Shingles, 1/2, 2d quality, 1/2 m.....	5	50@6 00
Shingles, extra sawed pine, 1/2 m.....	5	00@6 50
Shingles, clear sawed pine, 1/2 m.....	4	00@4 25
Shingles, sawed 3d quality, 1/2 m.....	2	50@2 75
Shingles, cedar, 1/2 m.....	3	00@6 25
Shingles, hemlock, 1/2 m.....	3	00@3 00
Lath, hemlock, 1/2 m.....	1	15@1 75
Lath, spruce, 1/2 m.....	2	00@2 00
Lath, pine, 1/2 m.....	2	25@2 25

## St. Louis, Mo.

From the Commercial Gazette.

## WHITE PINE.

1 inch 2d clear.....	\$50	@52 50
1 inch 3d clear, 7 to 8 inches.....	35	@40 00
1 inch select (Star).....	40	@
1 inch narrow extra common.....	22	50@
1 1/2, 1 3/4 and 2 inch 2d clear.....	32	50@55 00
1 " " select (Star).....	40	00@45 00
A clear stock boards, 12 inch.....	40	00@
B " " ".....	27	50@30 00
C " " ".....	18	00@20 00
A box boards.....	40	00@45 50
B " " ".....	30	00@32 50
1st clear flooring dressed (count).....	50	00@
2d common ".....	36	00@37 50
Sel. fencing flooring ".....	26	00@30 00
1st and 2d clear siding ".....	19	00@22 50
1st common ".....	24	00@
2d " ".....	21	00@23 00
Select fencing.....	16	00@
1/2 inch common ceiling dressed, count double bead.....	25	00@
1/2 inch 1st common ceiling dressed count double bead.....	30	00@
1/2 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
6 " " " 12, 14 and 18 ft.....	14	00@18 00
6 " " " 10 and 20 ft.....	14	00@
Narrow " " 16 ft.....	14	00@
Cull " " 11 ft.....	11	00@
Cull " " 12 and 14 ft.....	11	00@
Joists 12, 14 and 16 ft.....	14	00@18 00
" " " " 18 and 20 ft.....	16	00@20 00
" " " " 23 and 24 ".....	19	00@24 00
2x4 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.....	14	00@
" " " " 18 and 20 ft.....	16	00@
Flat pickets, rough.....	17	50@
Flat clear pickets, dressed and headed No. 9.....	35	00@
1 1/2 inch square pickets, rough.....	15	00@
" " " " dressed and headed.....	35	00@
O. G. clear battens, 2 1/2 inch wide.....	11	00@
" " " " 2 1/2 " ".....	9	50@
" " " " 1 1/2 " ".....	9	00@
G. 2d quality battens 2 1/2 in wide.....	9	00@

## YELLOW PINE.

1st and 2d clear flooring 5 in (count)...	35	00@37 50
1st and 2d clear flooring mixed widths, (tape).....	37	50@
1st and 2d clear flooring, narrow, one width (tape).....	38	00@40 00
Com flooring, mixed widths (tape).....	25	00@
" " 6 in (count).....	27	50@
1st and 2d clear boards 10 in and over.....	43	00@
" " " 1 1/2 in.....	45	00@
1 1/2 in 1st and clear flooring (tape).....	37	50@
1 1/2 inch common flooring (tape).....	27	00@
Common boards, rough.....	17	50@
Common fencing.....	17	50@

## POPLAR.

1st and 2d clear siding (not dry).....	18	00@
6-16 in ceiling (count) dressed, plain.....	20	00@
1st and 2d clear 1 in.....	40	00@
" " " 1 1/2, 1 3/4 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.....	18	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—on side \$2; two sides \$3.

## Oswego, New York.

From the Oswego Weekly Palladium.

## MICHIGAN PINE.

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

## CANADA PINE.

Three uppers.....	\$42	@45
Pickings.....	28	32
Common.....	18	22
Inch siding, mill run.....	22	32
" " " selected.....	35	40
" " " box.....	12	15
1 1/2 inch siding, mill run.....	22	35
1 1/2 " " selected.....	38	40
1 1/2 " " box.....	14	16
1 1/2 " " mill run.....	24	32
1 1/2 " " selected.....	35	42
1 1/2 " " box.....	14	16
2 " " mill run.....	24	39
2 " " selected.....	38	42
2 " " box.....	14	16
1x10 stocks, 13 ft, culled.....	22	26
1x10 stocks, 18 ft, culled.....	14	16
1x10 stocks, 16 ft, culled.....	23	26
1x10 stocks, 16 ft, culled.....	15	17
1x12 stocks, 13 ft, culled.....	22	26
1x12 stocks, 13 ft, culled.....	15	16
1x12 stocks, 16 ft, culled.....	23	26
1x14 stocks, culled.....	15	17
1x16 stocks, culled.....	23	28
1 1/2 x10 plank, culled.....	23	28
1 1/2 x10 plank, culled.....	22	27
1 inch strips, culled.....	15	17
" " " ".....	22	30



1x1 inch strips, culled.....	22	30
1x1 1/2 inch strips, culls.....	12	14
Ash, Canada finishing, 1st quality.....	30	85
" " " common.....	18	20
Black ash.....	18	23
Black walnut.....	85	100
Hemlock.....	12	14
Shingles, pine, 1st quality, 18 inch.....	4	75
" " 1st " 16 inch.....	4	00
" " 2d " 16 inch.....	3	50
" " 2d " 18 inch.....	3	25
" " cedar 1st " 18 inch.....	4	50
" " 2d " 18 inch.....	2	25
Hemlock, 1st " 18 inch.....	3	60
Spruce, 1st " 18 inch.....	3	25
Mich. pine shingles, best quality 18 inch.....	5	75
Pickets, pine, 1st quality, flat.....	14	15
" " 2d " ".....	10	11
" " 1st " square.....	12	13
" " 2d " ".....	10	11
Lath.....	1	80

## Pacific Coast.

Pine, pug. snd. and or. 3 and 4 in. $\frac{3}{4}$ M 20 00@	
Do for St. work.....	17 00@
Do 2-in for side walks.....	20 00@
Do flooring and stepping 1st quality.....	30 00@
Do do 2d quality.....	25 00@
Redwood, rough.....	26 00@
" " refuse.....	16 00@
Pickets, rough.....	18 00@
" " pointed.....	20 00@
" " fancy.....	30 00@
Redwood flooring, T and G surfaced.....	32 50@35 00
" " refuse.....	25 00@28 00
" " rustic.....	33 00@
Surfaced $\frac{1}{2}$ inch.....	32 50@35 00
P. Orford cedar—first quality.....	60 00@70 00
" " second ".....	37 50@45 00
" " third ".....	20 00@21 00
Sugar Pine—1st quality.....	60 00@70 00
" " 2d ".....	40 00@50 00
" " 3d ".....	25 00@27 50
Laths.....	5 00@5 50
Shingles.....	2 50@
Battens, $\frac{3}{4}$ ft.....	$\frac{1}{2}$ @

## New York City.

Spruce, eastern, per m. ft.....	20 00@22 00
Bird's-eye maple logs, per sup ft.....	@
Black walnut logs.....	3@ 6
Black walnut, figured and bliste ed.....	8@ 25
Yellow pine timber, Georgia.....	27@ 30
White oak logs, per cubic feet.....	45@ 50
White oak plank, per m. feet.....	50 00@55 00
White pine shipping boards.....	25 00@28 00

## MAHOGANY, CEDAR AND ROSEWOOD—DUTY FREE.

Mahogany, St. Domingo, crotches, per ft 25 @70	
" " logs.....	@25
" " Cuba, logs.....	@14
" " Port-au-Patt, crotches.....	@40
" " logs.....	@18
" " Neuvas.....	@
" " Manzanilla.....	@15
" " Mexican logs, small.....	@16
" " Honduras, logs.....	@12
" " ".....	@12
Cedar, Manzanilla.....	8 1/2@ 9 1/2
" " small.....	7 @ 8 1/2
" " Mexican, logs.....	8 @ 13
" " Honduras, logs.....	9 @ 10
" " Florida, per cubic ft.....	60 @80
Rosewood, ordinary to good Rio, per lb.....	2 @ 4
" " good to fine Rio.....	4 @ 8
" " ordinary to good Bahia.....	2 @ 3
" " good to fine Bahia.....	3 1/2@ 7

## THE FLINT &amp; PERE MARQUETTE RAILROAD

From the Milwaukee Journal of Commerce.

Rails are now being shipped from this city which will complete the Flint & Pere Marquette railroad to Ludington, Michigan. It gives us pleasure to announce that this road, so important to the interests of Milwaukee will be completed within thirty days. It will open to our merchants and manufacturers a new and thriving country to which they have not hitherto had access. It runs directly through the lumber and salt region of the Saginaw valley, and terminates at Toledo, Ohio, where it connects with lines of steamers for Buffalo, and with the Michigan Southern railroad for all points east. Its length is 273 miles. It has also a branch to Detroit. This will form quite as good a line for eastern and western bound freight as the Detroit & Milwaukee railroad. It is only fifteen miles more in a straight line from Milwaukee to Ludington than it is from Milwaukee to Grand Haven, and the harbor is naturally quite as good. It is only a voyage of one night for a good steamer to either place.

The construction of this road began several years ago, and has proceeded quietly, only so much being built each year as could be done well and paid for. The rails are sixty pounds per yard; cars, engines, bridges, buildings and other parts of construction are first class, and better in every respect than many old roads. It owns forty-two engines, forty-six passenger cars, and 747 freight cars. It has cost, with all buildings and equipment about \$35,000 per mile, but when finished will have a bonded debt of but \$21,000 per mile. Although the road has no western connection with through business, but has had one end at Toledo and the other in an unbroken wilderness, it has each year since 1867 earned a handsome profit above interest and operating expenses. We see from Poor's Manual that in 1873 its gross earnings were \$1,

\$65,424.52, and net earnings \$630,374.98. This unprecedented success is due in the first place to its honest and careful management in the matter of expenses, and, in the next place, to the wisely liberal policy of the road in establishing and building up along its line all manner of private and manufacturing enterprises. There probably never was a railroad so universally popular as the Flint & Pere Marquette in the region through which it runs. This is the secret of its extraordinary earnings.

Its honest construction and honest management is doubtless the reason that the eight per cent. bonds of this new and hardly finished railroad are selling to-day for 90 cents, while few of the oldest roads in the country have anything like so good a financial standing.

The company had quite a valuable land grant, and as it has been blessed with no construction company to make a profit on building and to gobble all lands for the benefit of the directors, it has been able to get through with a bonded debt of \$14,000 per mile less than cost. Every dollar received for lands has been used to buy up its own bonds. It still has lands valued at over \$2,000,000 which will be applied to the same purposer. Certainly its example of honesty and fair dealing, is one which many railroad companies would do well to imitate.

Captain E. B. Ward is president of the Flint & Pere Marquette road and has held that office from the beginning. Dr. H. C. Potter, of East Saginaw, the treasurer and general manager, is a business man of great efficiency and of general popularity. These are men whom Milwaukee business men will do well to know and cultivate hereafter, and the road cannot fail to add vastly to the commercial strength of Milwaukee.

A gentleman writing from an eastern city—a stranger to us and to all of our agents—says: "In an article read in specimen No. of the *WISCONSIN LUMBERMAN* sent me there is one which is worth to *any* lumberman five times the price of subscription, and should he be seeking professional advice the fee for the same information would be not less than \$50."

#### THE BIG FLOOD IN THE CHIPPEWA RIVER.

In Mr. Randall's "Reminiscences of the Chippewa Valley," we find the following, relative to the big flood in the Chippewa river, and other items:

Far otherwise was it with the mill company at the Falls, who every winter spent large sums in erecting piers, renewing booms, and strengthening their works to secure logs, a charter granting ample privileges, having been obtained from the legislature for that purpose, and so determined was the company to make all secure, that piers costing more than a thousand dollars each were placed in the river; booms with heavy iron fastenings were attached and every part of those vast structures seemed perfect and impregnable against all freshets. The capacity of the mills was every year enlarged, and in the winter of 1854-5 a very large amount of logs were put in to supply the season's cutting; the spring drive was good, lumber sold readily and at a good price, and all the affairs of the company seemed flourishing, but by a strange and sudden freak of nature all these hopes were cut short in a day.

But little rain had fallen, from the snow storm in April until the sixth of July, when a dark cloud formed directly over the territory drained by the Chippewa, clearly visible from this place and the Falls. No rain fell here and only a little hail at the Falls, but dark masses of clouds could be seen, rolling and gathering from every direction into that one spot in the heavens, accompanied with fearful peals of thunder that made the earth tremble, and this continued for about thirty hours, appearing every moment as though it were coming right down upon us, but actually spending all its force in that single locality.

The consequence was a sudden and terribly destructive rise in the river bringing down vast quantities of logs and drift wood, which drove with

such force against these piers, that the channel was soon cleared of all obstructions and more than seventy thousand logs (25 million feet) together with their piers and booms, were carried away and scattered all over the bottoms and amongst the sloughs of the lower Chippewa. The mill race, too, was badly damaged, and no more lumber could be made that year, which, when we consider that 100,000 feet was being manufactured every day before this unfortunate flood, and that every thousand feet was worth twenty dollars in gold, makes the loss very great. "The last straw" it is said "breaks the camel's back," and this was a very large straw which contributed very much to the final downfall of the Chippewa Falls company.

#### STRENGTH OF MATERIALS.

It is a remarkable provision of nature that iron, which is the most abundant material yielded by the earth, is also the strongest of all known substances. Made into the best steel, a rod one-fourth of an inch in diameter will sustain 9,000 pounds before breaking; made into soft steel, a rod of the same dimensions will sustain 7,000 pounds; into iron wire, 6,000; wrought iron, 4,000; inferior bar iron, 2,000; gold, 2,500; tin, 300; cast zinc, 160; cast lead, 50; and milled lead, 200. Of wood, a bar of box and locust of equal size will sustain 1,200 pounds; of the toughest ash, 1,000; elm, 800; beach, cedar, white oak, pitch pine, 600; chestnut and maple 650; and poplar, 400; wood which will bear a heavy weight for a minute or two will break with two-thirds the force acting a long time. A rod of iron is about ten times as strong as hempcord. A rope of an inch in diameter will bear about 2½ tons, but in practice it is not safe to subject it to a strain of more than about a ton. Decrease the rope in diameter one-half, and its strength will decrease three-fourths. Thus a rope half an inch in diameter will sustain one-fourth as much as a rope an inch in diameter.

#### THE MILWAUKEE JOURNAL OF COMMERCE

says:

Mayor Ludington seems to have a faculty for pitting himself against candi-

dates who prove ineligible. He became mayor three years ago through the discovery that Levi H. Kellogg was legally unable to fill the office to which he had been elected. Last fall just as local politics had become wrought up to the highest pitch of interest by the competition between that sturdy lumberman, Harrison Ludington, and the genial banker, Col. William H. Jacobs, it was discovered that Col. Jacobs was on a bond as custodian of the city funds and so disqualified. Now when three counties are distracted by the effort to distinguish between the respective princely qualities of Sam Rindskopf and Harrison Ludington as candidates for Mr. Mitchell's seat in congress, the horrible suspicion suggests itself that Sam may not be after all a citizen of the United States!

#### OUR TRADE WITH CANADA.

The Bureau of statistics furnishes the following detailed statements of the imports from the United States into the provinces of Quebec and Ontario during the fiscal year ending June 30, 1874. The value of the merchandise imported into Ontario amounted to \$30,599,074; into Quebec, \$12,690,699; total, \$43,289,773—while the returns made by the United States Bureau of Statistics show the value of the exports to those two provinces in the same period aggregate but \$32,565,627, an omission of \$10,724,146. This omission arises from the fact that a large part of our exports to those provinces crosses the border at Suspension Bridge, N. Y., St. Albans and Island Pond, Vt., "in cars," and it is impossible to obtain accurate accounts of merchandise so carried, there being no law to detain land vehicles as there is in the case of vessels, until the manifesto of the cargoes in detail is furnished. The addition of the amount of such omission in the exports to Canada increases the favorable balances by that amount. The correct statement of our foreign trade for the last fiscal year will then be as follows:

#### TOTAL EXPORTS OF MERCHANDISE (ALL SPECIE VALUES.)

Domestic and foreign.....	\$597,126,235
Total imports.....	567,406,842
Balance.....	29,739,393
Less differences in goods from bond.....	17,874,225
Total.....	\$38,175,499
Exports of specie and bullion.....	\$11,841,668
Imports of specie and bullion.....	66,684,405
Excess of exports of the precious metals.....	28,454,906
Excess of expts of merchandise & specie.....	50,017,167

# JOHN B. BOTTINEAU, REAL ESTATE,

Insurance and Loan Agent.

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

Special attention given to paying taxes, procuring and perfecting titles to lands entered by HALF-BREED SCRIP. Soldiers' 80-Acre Claim and Warrants bought and sold. Personal 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 153 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 34 and 35. First quality Farming Lands, well timbered and prairie and well watered; near railroad. \$5.00 per acre.

## Choice Pine Lands.

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

160 acres in sec. 24.....	T. 132, R. 30	240 acres in sec. 10, 14, 21.....	T. 132, R. 31
400 acres in sec. 21, 22, 30.....	T. 137, R. 33	360 acres in sec. 14, 18, 24.....	T. 132, R. 31
440 acres in sec. 1, 12.....	T. 137, R. 34	240 acres in sec. 30.....	T. 40, R. 25
160 acres in sec. 10, 22, 24, 34.....	T. 137, R. 33	380 acres in sec. 3, 22, 24, 26.....	T. 40, R. 29
877 acres in sec. 6, 11, 13, 14, 24, 25, 33, 34.....	T. 133, R. 25	320 acres in sec. 6, 10, 28, 34.....	T. 51, R. 26
160 acres in sec. 8.....	T. 137, R. 33	360 acres in sec. 10, 14, 26, 34.....	T. 51, R. 27
240 acres in sec. 4, 18.....	T. 131, R. 30	320 acres in sec. 14, 22, 26, 30, 34.....	T. 53, R. 26
480 acres in sec. 10, 14, 24.....	T. 131, R. 31	160 acres in Wisconsin sec. 30, T. 44, R. 2 W., near	
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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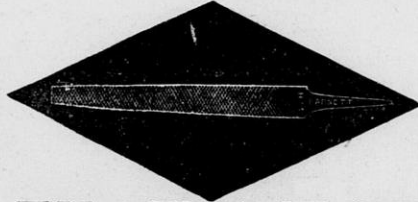
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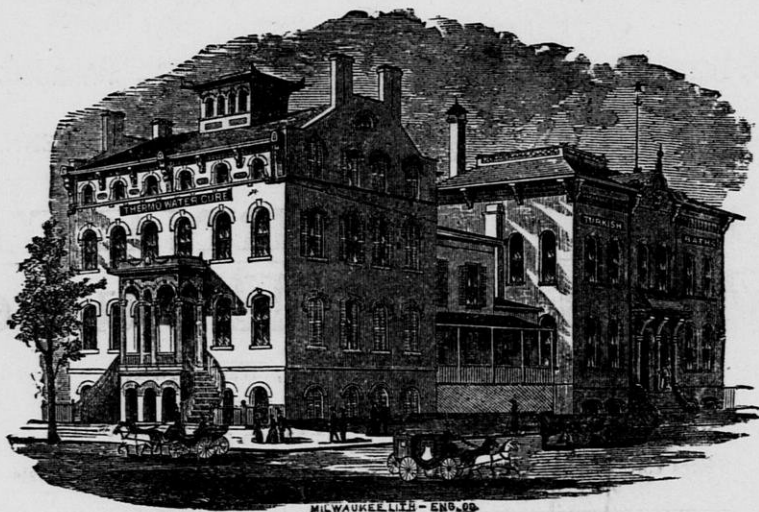
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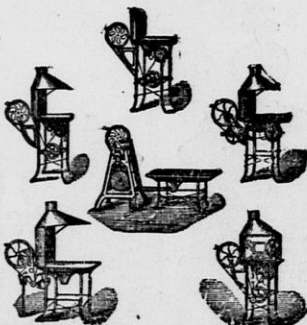
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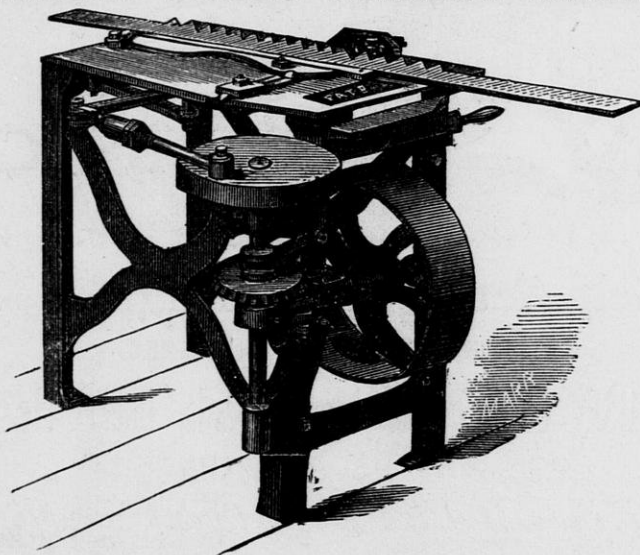


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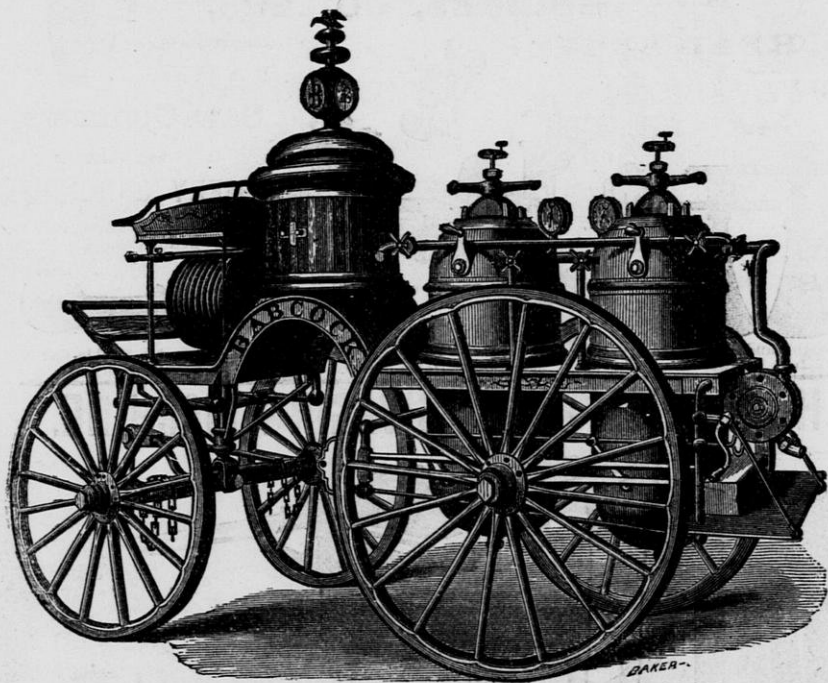


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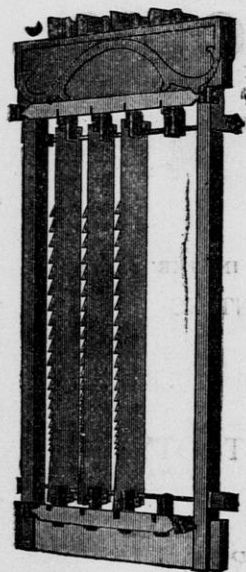
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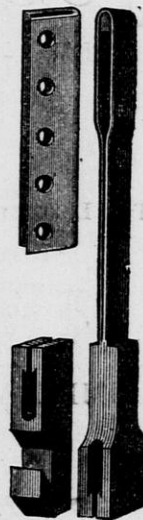
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The FARMING LANDS include many thousand acres  
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No better can be found, and they are well watered,  
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One-fourth down, and the remainder in three  
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*Saw Mill For Sale.*

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A valuable Saw Mill Property in South-  
ern Michigan, consisting of Circular Saw,  
Patent Edger, Cut-off and Small Machinery.  
Engine and Boiler complete, and in good  
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**Cutting 25,000 Feet Per Day.**

Situated on the line of F. & P. M. R. R.  
also on Muskegon River with convenient  
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CHEAP! Terms easy to a responsible party.

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BY TAKING THE

**DETROIT & MILWAUKEE**

RAILROAD LINE.

The Cheapest and 100 Miles the Shortest Route o

**Grand Rapid, Saginaw,**  
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**Suspension Bridge, Buffalo.**

**NEWYORK, BOSTON**

**And All Points in the East.**

On and after Monday, April 6th, 1874, the Steamers of this line will leave MILWAUKEE from their dock, 68 West Water Street, daily at 9 P. M. (Saturday excepted) making direct connections at GRAND HAVEN the following morning with Trains for

**DETROIT AND ALL POINTS EAST.**

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

**Fare \$3.00 Less than any other Route.**

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

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Ticket Agent, Milwaukee.

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**SAW REPAIRER AND FURNISHER.**

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.

**HOWARD FOUNDRY AND MACHINE WORKS**

**TAYLOR & DUNCAN,**

**Manufacturers of Steam Engines,**

Blowing Engines, Mill and last Furnace Machinery,  
Iron and Brass Castings, &c.

**FORT HOWARD, WISCONSIN.**

**GREEN BAY & MINNESOTA R. R.**  
**CONNECTIONS.**

**GREEN BAY.**

**C. & N. W. Trains leave:**

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

**AMHERST.**

**Wisconsin Central Trains Leave:**

Going North—Pass—11.06 A. M. Pass 10.22 P. M.

" South—Pass—4.37 A. M. Pass 5.35 P. M.

**GRAND RAPIDS.**

**Wisconsin Valley Trains Leave:**

North—12.30 A. M. | South—3.30 P. M.

**MERRILLAN.**

**West Wis. Railway Trains leave:**

Going North—Pass—11.05 A. M. 11.10 P. M.

" South " 2.34 A. M. 4.42 P. M.

St. Paul time, which is 25 minutes behind Green Bay time.

**WINONA.**

**Winona & St. Peter R'y Trains leave:**

Going West—Passenger—1.05 P. M.

" " Accommodation—5.35 A. M.

" " " 4 P. M.

**Mil. & St. Paul Trains Leave:**

Going North—Pass—12.40 A. M. 12.50 P. M.

" South " 12.25 A. M. 2.50 P. M.

Winona time, which is 25 minutes behind Green Bay time.

**DIAMOND JO LINE STEAMERS**

For all points North and South on the Mississippi River

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

D. M. KELLY, Gen'l Manager.

S. B. KENDRICK, Sup't.

W. S. MELLEN, Gen'l Ticket Agent.

F. J. BOSWORTH.

B. B. HOPKINS.

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# BOSWORTH & SONS,

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DRUGS, CHEMICALS, PAINTS, OILS AND FINE LIQUORS,

MILWAUKEE,

OFFER TO THE WHOLESALE TRADE

5,000 Boxes Window Glass,

500 Brls Raw and Boiled Linseed Oil,

300 Brls Tar Pitch,

200 Brls Rosin,

1,000 Brls Extra Carbon and Headlight Oil,

200 Tons White Lead,

200 Carboys Muriatic, Nitric and Sulphuric  
Acids,

500 Cases Niagara Star Bitters,

1,000 Boxes Sun Chimneys,

200 Brls Extra Lubricating and W. V. Oils

500 Pks Ginger, Mustard, Nutmegs, Spices,

1,000 Pks Whiskey, Brandy, Wine, Gin, Rum.

A Large Stock of BRUSHES of all Descriptions

“ “ DRUGGISTS SUNDRIES and FANCY GOODS

*We Make a Specialty of the Lumber Trade.*

**IMPORTANT TO MILL OWNERS AND MACHINISTS.**

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**Vulcanized Friction Board**

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

33x44 inches, 5, 6, 8 and 10 sheets to bundle.  
 19x29 " 20, 25, 30 and 35 sheets to bundle.  
 22x26 " 15, 20, 25, 30 and 35 sheets to bundle.

Nos. 5 and 6 are about  $\frac{1}{2}$  of an inch thick, and are those most used, and will usually be found the most available for all purposes. For mill men and machinists, for pulleys and packing, and to foundries for raising patterns, this article is almost indispensable, and in all our experience we have never found parties, who having used it, would return again to the use of wood, rubber or leather.

The following parties have used it largely, and will doubtless recommend it to all who may inquire regarding it:

FILER, STOWELL & CO.,  
*Foundries and Machinists, Milwaukee.*

W. H. HINER & CO.,  
*Foundries and Machinists, Fond du Lac.*

C. J. L. MEYERS,  
*Manufacturer of Lumber, Sash, Doors, etc., Fond du Lac.*

C. C. PAIGE,  
*Eagle Iron Works, Oshkosh.*

UNION LUMBERING CO.,  
*Lumbermen, Chippewa Falls.*

EAU CLAIRE LUMBER CO.,  
*Lumbermen, Eau Claire.*

HAMILTON, MERRYMAN & CO.,  
*Lumbermen, Marinette.*

This is the only Board manufactured expressly for this purpose, and will be found the only one that will give perfect satisfaction.

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## All kinds of Saws.

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Cross Cut and Scroll Saws, Billet Webs.


ALSO,

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Dealers in French Band Saws, Rubber Belting, Fies, Saw-Gummers, and all kinds of Mill-Furnishing Goods, and Sole Manufacturers in the West of

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THE BEST SAW SET EVER MADE.

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AND EVERY VARIETY OF

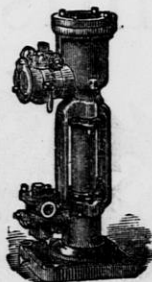
## STEAM PUMPING MACHINERY,

Awarded Medal of Highest Honor, at Vienna Exposition, 1873.



ORDINARY STYLE  
Piston Pump.

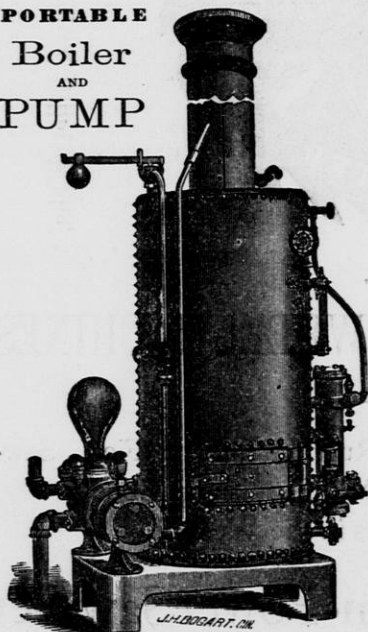
For Feeding Steam boilers, Filling Reservoirs and Tanks, and for General Pumping.



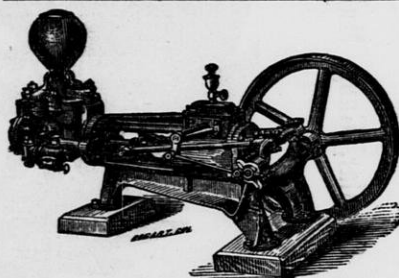
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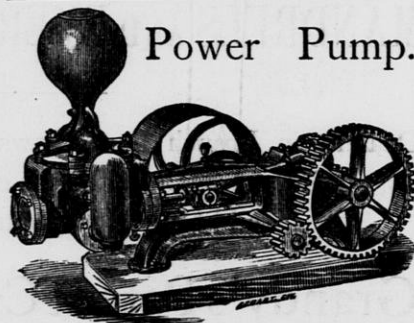


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CRANK AND FLY WHEEL PUMP

Serves for Pumping, and at the same time furnishes Power for other Work.



Power Pump.

Adapted to receive Power from a line of Shafting Suitable for Establishments run by Water.

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# GOODRICH, TERRY & CO.

Have a Large and Well Assorted Stock of

## GROCERIES

Suited to the Lumbering Trade,

Consisting of, in part,

500 KEGS OF SYRUP,

5 and 10 Gallons, convenient for the

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Full Assortment of Canned Goods,

COMPRISING

PEACHES, TOMATOES, BERRIES AND FRUITS OF VARIOUS KINDS,  
VEGETABLES AND OYSTERS.

*KENTUCKY AND VIRGINIA*

Plug and Fine Cut Tobacco

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GREEN, OOLONG AND JAPAN TEAS

Packed in quantities to suit the demand of the camp

DRIED FRUITS: Apples, Peaches, Cherries,  
Blackberries, Turkish Prunes, Zante  
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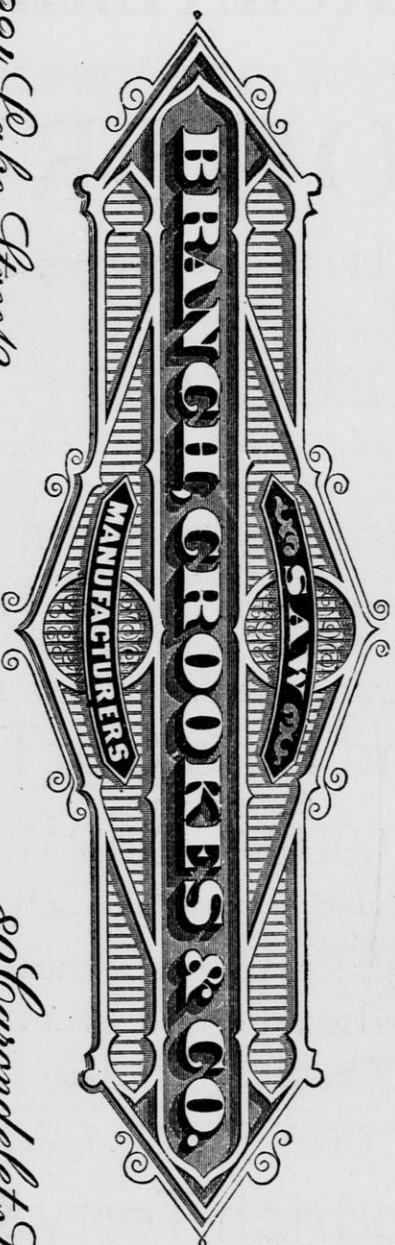
*SUGARS, COFFEES AND SPICES,*

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314 AND 316 EAST WATER STREET, MILWAUKEE, WIS

**ST. LOUIS SAW WORKS**

Established in 1849.



*224 Lake Street*  
**CHICAGO.**

*114 & 116 Pine Street*  
**ST. LOUIS.**

*80 Carondelet St.*  
**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	Gratlot E H d.....	Belmont
McCartney D m and d.....		Gray James p m.....	Beloit
Oleson & 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 & Erdling.....	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
Fratt 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
Bailey D R.....	Baldwin	Beach & Bi-hop 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.....	Fairchild
Deniston C R d.....		Long, Henderson & Coe m and d.....	Fall Creek Station
Staves J M d.....		Randall, Simeon d.....	Fall River
Neff D d.....	Calamine	Anderson C B d.....	Evansville
Bock Chas d.....	Calumet	Fiffeld E d.....	
Myers Jas d.....	Cambria	Johnson D & Co d.....	
Tisch Chas d.....	Carlton	Mack H & Bro m and d.....	Evanswood
Stephens Daniel B d.....	Cassville	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	O 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.....	Fond du Lac
Lefevre H.....		Griffith J Q & Son m and d.....	
Lyon R C s m.....		Riley & Bosworth loggers.....	
Clark & Scott m and d.....	Charlestown	Hamilton I K & W C loggers.....	
Graves James m and d.....		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 & McRea sash doors etc.....		McDonald & Stewart sash doors etc.....	
Marriet, La Beulf & Co loggers.....		Parker N & Co d.....	
Vincent, Monelert & 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 P 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 m 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	Matthales 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 & McEvoy staves etc.....	
Marsh G S m and d.....		Bergtresser L m and d.....	Fremont
Ritchie James m and d.....		Brickley John m and d.....	Frenchville
Monroe John m and d.....		Edwards J & Co m and d.....	Galesville
Struthers Thomas sash doors etc.....		Sterns & Son staves.....	Genoa
Hiles G m and d.....	Dexterville	Freeman A W d.....	Germantown
Remington H W m and d.....		Arnold J m and d.....	Gibson
Worth C M & A R s m.....	De Soto	Natchway H.....	Glenmond
Kinney Francis m and d.....	Durand	Olds & Lord m and d.....	Genoa Junction
Plummer & Morse m and d.....		Freeman O. & W. d.....	Genesee
Hoard & Earl d.....	Doylestown	Stewart Bros d.....	Grand Rapids
Knapp, Stout & Co m and d (Menomonee).....	Dunnville	Arpen A logger.....	
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).....	
Rathbone 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.....		Neeves Geo & Son m and d.....	
Burdett, Preston & Co m and d.....		Rat in John m and d.....	
Estabrook W B m and d.....	Eau Claire	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 Lumco 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.....	Eau Galle	Willard Lamb m and d.....	
Carson & Rand m and d.....	Eau Pline	McIntosh C E s m.....	
Week John m and d.....		Lamb, Watson & Co m and d.....	
Hutchinson & Bro m and d.....	Edgerton	Woodruff J W & Co m and d.....	
Brown R R d.....	Elroy	Holmes & Thompson m and d.....	
Huntley & Co d.....	Embarrass	Anton Burkhardt p m.....	
Webster & Palmer m and d.....		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.....	Harrisville	Gardner & Co m and d.....	Little Suamico
Schmidt Adam m and d.....	Hartford	Conn A C & Co m and d.....	Lomira
Ewing Thos m and d.....	Helena	Olsen Geo & Co.....	Lowell
Mills J D d.....	Hillsborough	Zelder L.....	Luck
King P & Son d.....	Hortonville	Snow W H d.....	Lyndon
Tripp N D d.....	Hudson	Vaedsch & Runkle.....	McFarland
Fisher J.....	Humbird	Smith D F m and d.....	Madison
Briggs & Son m and d.....	Hurleyville	McWilliam A d.....	Maiden Rock
Gowell, Logan & McMurdo m and d.....	Iron Ridge	Eighmy Freeman d.....	Manitowoc
Redout Bros sash doors etc.....	Janesville	Bunker & Vroman d.....	Maple Works
Whitman & Morse m and d.....	Jefferson	Sorenson & Frederickson p m.....	Marquette
Baldwin D A m and d.....	Jenny	Stein C R d.....	Maxville
Palmer H G & Co m and d.....	Jewett's Mills	Taylor C L staves.....	Mazo Manie
White & Jones sash doors etc.....	Juda	Cooper & Jones.....	Menasha
King G W logger.....	Juneau	Woerfel E staves.....	Merrimack
J Kablin pail and tub factory.....	Kansasville	Guyles & Pankratz d.....	Mifflin
Roberts John d.....	Kenosha	Hubbard H F d.....	Milford
Blair J d.....	Keweenaw	Zander & Co p m.....	Mills Centre
Fifield, D K d.....	Keweenaw	Klingholz Charles m and d.....	Montpelier
Lovejoy & Blount d.....	Keweenaw	Pierce Plinn.....	Montpelier
Jeffries David d.....	Keweenaw	Reune Chas m and d.....	Marshall
Schutt U d.....	Keweenaw	Brayton L J d.....	Mauston
Hitchcock & Reind d.....	Keweenaw	Green J S d.....	Maxville
Andrews F M & Co m and d.....	Keweenaw	Hamilton, Merryman Co m and d.....	Mazo Manie
Matthews Thos m and d.....	Keweenaw	Tweedie & McMaster p m.....	Menasha
Kline & Kyes, loggers.....	Keweenaw	Menominee Mfg Co m and d.....	Merrimack
McInnis R, logger.....	Keweenaw	Spaulding, Houghtaling & Johnson m and d.....	Mifflin
Young Gld, logger.....	Keweenaw	McCartney Wm m and d.....	Milford
Streeter H, logger.....	Keweenaw	N Ludington Co m and d.....	Mills Centre
Sailes Bros, loggers.....	Keweenaw	Whitbeck H Co m and d.....	Montpelier
Derek M, logger.....	Keweenaw	Bartlett L H d.....	Montpelier
Derek Owen, logger.....	Keweenaw	Craig & Maroney sash doors etc.....	Montpelier
Combs H, logger.....	Keweenaw	King Walter staves.....	Montpelier
Jewett A S & Sons m and d.....	Keweenaw	Webster C m and d.....	Montpelier
Sutherland Sol.....	Keweenaw	Bronson D W d.....	Montpelier
Knapp J R d.....	Keweenaw	Hewitt Henry, Jr logger.....	Montpelier
Taber J B & Co.....	Keweenaw	Mitchell, Watkie & Co sash doors etc.....	Montpelier
Backus N G d.....	Keweenaw	Potter & Dutchman m and d.....	Montpelier
Harrison W M p m.....	Keweenaw	Schneider & Ruth p m.....	Montpelier
Head & Southerland d.....	Keweenaw	Spaulding, Houghtaling & Johnson m and d.....	Montpelier
Grant & Son, Market d.....	Keweenaw	Stephenson T & Co m and d.....	Montpelier
Truesdell Gideon, 3 Main d.....	Keweenaw	Knapp, Stout & Co m and d.....	Montpelier
Hitchcock & Mashek m and d.....	Keweenaw	Brand & Christmann m and d.....	Montpelier
Slauson, Grimmer & Co m and d.....	Keweenaw	Baldwin m.....	Montpelier
Stranky W m and d.....	Keweenaw	Bainbridge W.....	Montpelier
Dikeman & Latimer s m.....	Keweenaw	Harker & Bainbridge.....	Montpelier
Walker, Munger & Co sash doors etc.....	Keweenaw	Greene N S & Co.....	Montpelier
Britton C W m and d.....	Keweenaw	Brown & Evans m and d.....	Montpelier
Brook V logger.....	Keweenaw	Dunham L m and d.....	Montpelier
Wallace & Redford m and d.....	Keweenaw	Lucas & Bro m and d.....	Montpelier
Stark Bros, m and d.....	Keweenaw	Wight S s m.....	Montpelier
Cloespeck M m and d.....	Keweenaw	Greenman R J d.....	Montpelier
Kellnor M m and d.....	Keweenaw	Hutchinson James d.....	Montpelier
Black River Improvement Co.....	Keweenaw	White S d.....	Montpelier
Hogan & Chamberlain loggers.....	Keweenaw	Weyhausen A m and d.....	Montpelier
McDonald Bros loggers.....	Keweenaw	Williams J W saw mill.....	Montpelier
Salzer G. J.....	Keweenaw	Loos Charles d.....	Montpelier
Crosby W. W m and d.....	Keweenaw	Dodge, Churchill & Co p m.....	Montpelier
Coleman C L m and d.....	Keweenaw	Dodge & Davenport d.....	Montpelier
Gile & Holway m and d.....	Keweenaw	Rood J L d.....	Montpelier
Moorer R M logger.....	Keweenaw	Dessert J R m and d.....	Montpelier
Bright & Withee m and d.....	Keweenaw	Kronenwetter S m and d.....	Montpelier
Lill & Fouror m and d.....	Keweenaw	Garland J d.....	Montpelier
Hewett & Woods m and d.....	Keweenaw	Bull & Bowers.....	Montpelier
Hixon & Withee m and d.....	Keweenaw	Houghton Geo G & Co m and d.....	Montpelier
A & D D McMillan loggers.....	Keweenaw	Schroeder & Steinman, dealers.....	Montpelier
Nevins S L m and d.....	Keweenaw	Ernst Herzer, planing mill.....	Montpelier
Paul John m and d.....	Keweenaw	Wm. Willer, planing mill.....	Montpelier
Polleys W H logger.....	Keweenaw	H. Jalass & Co., planing mill.....	Montpelier
Root W C logger.....	Keweenaw	Brockhaus & Bradley, planing mill.....	Montpelier
Sill Wm R logger.....	Keweenaw	Nic. Schuh & Son, dealers.....	Montpelier
Vincent & Edwards d.....	Keweenaw	Rodway, Conway & Co, p m sash, drs, etc.....	Montpelier
Washburne C C m and d.....	Keweenaw	Sanger, Rockwell & Co, sash, drs etc, p m.....	Montpelier
Weston R S m and d.....	Keweenaw	Engelmann, Babcock & Salling, m and d.....	Montpelier
Emery T B logger.....	Keweenaw	Ewing Thos K commission.....	Montpelier
Goddard H logger.....	Keweenaw	Weston Bros, manufacturer and dealer.....	Montpelier
Hankerson A H logger.....	Keweenaw	Mayhew Bros d.....	Montpelier
La Crosse Lumber Co m and d.....	Keweenaw	Durr & Ruege d.....	Montpelier
Mitchell A S p m.....	Keweenaw	Schmidt & Reichel d.....	Montpelier
Ross Robert m and d.....	Keweenaw	Judd T H & Co d.....	Montpelier
Barron John m and d.....	Keweenaw	Comstock L & Co m and d.....	Montpelier
Robson John m and d.....	Keweenaw	Chandler Walter S d.....	Montpelier
Sanford G P & Co d.....	Keweenaw	Seyfried Martin d.....	Montpelier

Brembach Fred d.....	Milwaukee	Neff A & Co p m.....	Oshkosh
Mabbett & Foster d.....		Chapman L C & 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 N 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 & Hallway 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.....	Neenah	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.....		Elighme R P logger.....	
Boardman & Palmer m and d.....		Stevenson, Badgett & 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 (Merrillan 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 & Mad 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.....	
Pierce L M p m and sash doors etc.....		Gray A D m and d.....	Pepin
Winslow, England & Co m and d.....		Peshigo Co m and d.....	Peshigo
Loosey Chas d.....	O'Kee	Prutzmann 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	McGraw 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 & Lenfelt 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 Sac
Bradley C G m and d.....	Osceola	Meacham & Bro p m.....	Prescott
Stapels C H logger.....		Green G d.....	Princeton
Dresser & Wilson m and d.....		Gillon N.....	Pine Grove
Talboys & Hanscome m and d.....		Glawe C.....	
Hanpp L E m and d.....	Oshkosh	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 Louie I logger.....	
Miner E B & Co sash doors etc.....		Lester & Plummer m and d.....	
Slawson Jas R & Co d.....		Park G L logger.....	
Itley & 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 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.....	
Learnmouth J d.....	Rio	Sheckels Wm logger.....	
Barlow J B & Co d.....	Ripon	Walker & Wadleigh m and d.....	
Lanning A p m.....		Whitney Ebenezer logger.....	
Chinock J H s m.....	River Falls	Wade Geo & Co shingles p m.....	
Foss H W d.....	River Side	Weich 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.....		Turner O M d.....	
M H McCord logger.....	Shawano	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. Wescott 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.....	
Wecks 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	Eldred Anson m and d.....	Stiles
Mason, Barnes & Co m and d.....		Zimmermann W d.....	Theinsville
W. D. Jordon 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.....	
Setson 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
Jeeley & 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 C L d.....	
Stafford L R.....	Staffordville	Whitney & Darling d.....	Waldo
Bailey D C logger.....	Stevens' Point	Cooley C F & Co m and d.....	Waubesa
Blake & Mitchell loggers.....		Howlett & Co p m.....	Waupaca
Benson P & Bro loggers.....		Payne & Co m and d.....	
Burns, Thompson & Co m and d.....		Smith & Foster.....	Wauzeka
Boynton N m and d.....		Lewellen & Lunn.....	Waterloo
Brown E D m and d.....		Squires & Sheldon.....	
Bean T G & Son m and d.....		Hamlin J H & Co d.....	
Campbell P logger.....		Streeter J & A C & Co W Water d.....	Waukechon
Homestead Seth logger.....		Hammond Alfred.....	
Gilchrist A B logger.....		Semple A.....	
Goodhue Geo J, Jr logger.....		Semple F.....	
Hungerford Seely logger.....		Morse O A d.....	Waupun
Hutchinson & Bro m and d (Eau Claire)		Hollendyke N d.....	
Hubbard — shingles.....		Richardson Silas d.....	Waukesha
Karner S H m and d.....		Kimball R N p m and s m.....	
Knox Bros m and d.....		Dodd Sam'l p m.....	



Hartwell C M sash doors etc.....	Waukesha	Alexander W, logger.....	Wausau
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.....		Nicolis 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, Stickles & 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.....		McKesson staves.....	
Altherton & Dorn, logger.....		Converse H.....	Wyocena
Adam H, logger.....		Wells & Craig.....	
Clark Wm, logger.....		King P & Sons d.....	Wyoming
Borchardt 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.....	Alamo	Glennie J W m and d.....	
Wright Peter m and d.....	Albion	McDonald D A.....	
Cosad & McGregor.....	Alcona	Moore Alger & Co m and d (Detroit).....	
Haynes & Beard m and d.....	Algonac	Moore & Tanner.....	
Folkerts F C & Co m and d.....		Vaughan S.....	
Smith A & S S m and d.....	Allegan	Richardson J C m and d.....	Auster City
Allegan Mfg. Co p m.....		Wilson H D s m.....	Auster City
Base R.....		Hawley A M.....	Averill's Station
West N B sash doors etc.....	Allendale	Miller A G m and d.....	
Roberts Richard m and d.....	Allens	Steele C s m.....	
German & Dewey m and d.....		Kroetzer G & Co p m.....	Bainbridge
Wright Ira.....	Alma	Babcock Sarrett & Co m and d.....	Baltimore
Winchester & Parish staves.....	Almena	Crutcher G W m and d.....	
Pierce Hall & Ward m and d.....	Almont	Childs E J sash doors etc.....	Bangor Van Buren Co
Wise & Co sash doors etc.....	Alpena	Coombs & Smiley m and d.....	
Farnum Rufus K m and d.....		Green & Thompson m and d.....	
Bewick Comstock & Co m and d.....		Nyman J H m and d.....	Banks Bay Co
Campbell Potter & Co m and d.....		Moore Smith & Co m and d.....	
Davis D G & Co s m.....		Taylor & Moulthrop m and d.....	
Doane Bingham & Co sash doors etc.....		Keystone Lumber Co m and d.....	Baraga
Fletcher A F & Co m and d.....		Bendry James m and d.....	Battle Creek
Folkerts & Butterfield m and d.....		Buck Hoyt & Co p m.....	
Gilchrist Frank m and d.....		Dwinell Pettie & 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.....	Bay City
Prentiss Geo & Co m and d.....		Avery Murphy & Co m and d.....	
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.....	Arnsden	Carney T sash doors etc.....	
Cummings Geo W s and m.....	Ann Arbor	Carrier John & Co m and d.....	
Ferdon John & Son d.....		Chapin & Barber m and d.....	
Krapp Conrad d.....	Antrim	Chapman G P & B.....	
Wright J S m and d.....	Arcade	Dolson Chapin & Co m and d.....	
Battershall L A m and d.....	Armada	DeWitt Jas N m and d.....	
Jackman J F m and d.....		Eddy Avery & Co m and d.....	
Miller Caleb & Sons m and d.....	Attica	Folsom & Arnold m and d.....	
Battershall L A m and d (Arcade).....		Gardner F F & Son.....	
Darwood & Daley m and d.....		Gates & Fay m and d.....	
Jenness J N & Co m and d.....		Haiser F & A.....	
Williams W m and d.....	Augusta	Hay Butman & Co m and d.....	
Bracy & Clark p m.....	Aurelius	Hitchcock & Ingraham m and d.....	
Davis Wilson m and d.....		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	sm.....
Sanford J S p m.....		Graham C & Co	m and d.....
Shearer James & Co	m and d.....	Grosvenor E m and d.....	
Stevens & Shailer	m and d.....	Moon Chas B	m and d.....
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.....	
Whilhauer 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 & Co	m and d.....Bell River	Smith E & W	sm.....
Remick E & Co	m and d.....Benona	Vorce Barker & Co	m and d.....
Williams H m and d.....	Benton Harbor	Weller J B & Co	m and d.....
Cave L W m and d.....	Benonia	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 & Roe	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 & Ricker	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
Jipson H m and d.....	Blissfield	McLanc & Frith	d.....
Wiley, Lane & Co	staves.....	Sweet G C m and d.....	Columbia
Anable T C m and d.....	Bloomingtondale	Hemingway H L & J L	m and d.....Columbiaville
Conger & Broadwell	m and d.....	East Thos m and d.....	Columbus
Holmes L K m and d.....		Hungerford R H	d.....Concord
Kilheffer & Ames	m and d.....	Boubricht & French	m and d.....Constantine
Jenson L & Co	s m.....Blue'Lake	George & Tweedall	sash doors etc.....
Schmitz Anthony	m and d.....Blunfield	Harwood H J & Co	m and d.....
Bond Bros m and d.....	Bonds Mills	Jones Wolf & Co	m and d.....
Bowen E H & Son	m and d.....Bowen's Mill	Hart J P m and d.....	Coral
Headley Silas	m and d.....	Wagley John.....	Cross Village
Richardson J H m and d.....	Browne	Backart Geo m and d.....	Croton
Brown Sarah D m and d.....	Breedsville	Collins David	m and d.....
Purley Putnam & Son	m and d.Bridgenan LaketonP	Higbee Nelson	m and d.....
Weed B staves.....		Rice Wm m and d.....	
Brucker F & Co	shingles.....Bridgeport Center	Oneida Lumber Co	m and d.....Crow Island
Hill L L m and d.....		Fuller & Smith	m and d.....Crystal P O
Hodgeman L m and d.....		Coffin & Cuddeback	m and d.....Dallas
Ketchum Bros	shingles.....	Needham & Wilson	m and d.....Dayton
Phelps & Wyman	m and d.....Bridgeville	Wilson Jas H m and d.....	
Holmes J m and d.....	Bronson	Wallace John B m and d.....	Dearborn
Richards & Fox	m and d.....Buchanan	Bull & Ackley	m and d.....Decatur
Roe Charles m and d.....		Rawson L T	p m.....
Sherwood Alonzo	m and d.....	Roger A H & Co	m and d.....
Pierce L m and d.....	Burlington	Warner J P m and d.....	
Herrington & Bros	m and d.....Burnips Corners	Blinn & Row	staves.....Deerfield
Baker O R p m.....	Camden	Lovett & Smith	p m.....
McKinley James	p m.....	Packard & Son	m and d.....
Welker H R m and d.....	Campbell	Adams & Ferguson	m and d.....Detroit
Downey Bros m and d.....	Capax	Allen E G d.....	
Tibbals Botsford & Co	staves.....	Avery & Murphy	m and d.....
Ballantine H A & Co	m and d.....Carrollton	Backus & Bro	m and d.....
Carrollton Lumber Co	m and d.....	Bearss J H d.....	
Gould Erastus T	m and d.....	Bewick, Comstock & Co	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.....	
Foster 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.....	
Kilen 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 Dougall R B.....	
Nason Chas E d.....		Lathrop, Inscho & 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 & Roiland 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 Seeley & 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 & B J m and d.....	
Schneider Stephen sash doors etc.....		Wright & Co m and d.....	
Skillsings & 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.....		Stants & Quackenbosh 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.....	
Wight H A & S G m and d.....		Stevens C W staves.....	
Williams, Osborne & Co m and d and p m.....		Hipp B W.....	Ean Claire
Wood W H & Co sash doors etc.....		Auderson J H m and d.....	Edgerton
Hoimes 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.....	
Sili Benj. D & Son m and d.....		Kidder M C m and d.....	
Starett C p m.....		Monroe & Jones m and d.....	
Darwood & Dally 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.....	Elsie
Stowell J A m and d.....		Leach & Ramsey m and d.....	
Ketlogg & 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.....	Essexville
Thayer Edwin m and d.....			

Carrier John & Co m and d (Bay city).....	Essexville
Ferris & Hull m and d.....	Estella—Sumner P O
Hicks James m and d.....	
Tucker, Morris W & Co.....	
Kanfield & Andrews m and d.....	Eureka
Davis & Curtis m and d.....	Evart
Farewell Jas G m and d.....	
Hamilton & Mason s m.....	
Lamb & Matthews m and d.....	
Palmer, Welch & Russ m and d and staves.....	Exeter
Scotfield S A m and d.....	
Travor staves.....	
Bloomer E J m and d.....	Fairfield
Calvin John m and d.....	
Fuller & Sager p m.....	
Odell S & J m and d.....	
Myer Henry shingles.....	Fair Haven
Schnoor H C m and d and staves.....	
Farwell & Sawyer m and d.....	Fair View
Parkins & Sons m and d.....	
Batcheller, Slaght & Co m and d.....	
(Chicago).....	Ferrysburg
Slatt & Co m and d.....	
White, Glover & Co m and d.....	
Balley C C m and d.....	Fife Lake
Gilbert Ira W m and d.....	
Walter W L s m.....	Flat Rock
Atwood J B & Co m and d.....	Flint
Beardsley, Gillis & Co sash doors etc.....	
Bezole, Fox & Co m and d.....	
Briscoe & Lockwood.....	
Busenbark & Stone.....	
Carpenter Samuel m and d.....	
Crapo W W m and d.....	
Decker Grant staves.....	
Eddy Chas C & Co m and d.....	
Kiddy Jerome p m.....	
Gibbs D & Co.....	
Hamilton Wm m and d.....	
Hascall H C m and d.....	
Lee & Wilcox.....	
McCreery W B p m.....	
McFarland A m and d.....	
Smith Hiram m and d.....	
Davenport Geo & Co m and d.....	Florence
Grant & Saylor m and d (East Saginaw) ..	
Haskins, Martin & Wheeler m and d (East Saginaw).....	
Merrill Chas & Co m and d (East Saginaw) ..	
Shaw & Williams m and d.....	
Ford River Lumber Co m and d (Chicago).....	Ford River
Smith & Kelley m and d (Au Sable).....	Forester
Dwyer Geo G s m.....	Frankfort
Hubbell & Wakefield p m.....	
Hileman & Hessen m and d.....	Freeport
Fruitport Mfg Co m and d.....	Fruitport
Gage Joseph m and d.....	Gagetown
Lloyd & McNair m and d.....	Gaines Station
Sayers Bros m and d.....	
Blakeslee Geo A m and d.....	Gallen
Batchelor Slatt & Co m and d.....	Grand Haven
Bigelow & Stone.....	
Cutler D m and d.....	
Dirk & Barker m and d.....	
Eastman Galen m and d.....	
Ferry & Bro m and d.....	
Gibson James.....	
Monroe & Howlett m and d.....	
Reynolds & Emley.....	
Rysdorf & Busch m and d.....	
Stows C L.....	
Wyman Buswell & Co.....	
Ca-le H E m and d.....	Girard
Bradley H Rose p m.....	Grand Ledge
Lamson Edmund m and d.....	
Russell E s m.....	
Barnhart & Osterhaut m and d.....	
Borden A D & Co p m.....	
Clancey John.....	
Clark G B & Co sash doors etc.....	
Comstock C O m and d.....	
Crossette Graves & Co m and d.....	
Cutcheon L M.....	
Cutler Robt.....	
DeGraaf Vrieling & Co sash doors etc.....	
Farrin & Co.....	Grand Rapid
Knight Geo L & Co m and d.....	
Krum Foster & Co p m.....	
Long A B & Sons m and d.....	
Lore R W staves.....	
McElmer J G m and d (Lockwood).....	
Mackey Walker & Co 1st mill (Chicago).....	
Nichols & Co p m.....	
Norton A F & Co.....	
Pardoe Cook & Bro m and d.....	
Pew G H p m.....	
Powers W H p m.....	
Powers W T & Son.....	
Putnam Enos.....	
Quimby J L.....	
Roberts A & Son.....	
Robinson S & Co p m.....	
Ryan Young & Co m and d.....	
Ward E F & Co.....	
Webster A & Co p m.....	
Wheeler Reuben sash doors etc.....	Grand Rapids
Wilkins & Bachman p m.....	
Withey L H & Co m and d.....	
Wonderly Lumber Co m and d.....	
Dewory E m and d.....	Grandville
Jennison H.....	
Belknap & Oliver sash doors etc.....	Greenville
Clark & Rhinesmith Lumbering Co.....	
Fuller & Gowan m and d.....	
Hart Henry m and d.....	
Hutchings S G.....	
Jenks C C s m.....	
Wright Bros.....	
Pardoe Cook & Blanchard m and d (A Par-dee & Co New York).....	Hamlin
McRoberts A m and d (Bay City).....	Hampton
Backus A J m and d (Backus & Bro Detroit).....	Harrisville
Westons Colwell & Co m and d.....	
Hills W m and d.....	Hart
Allen & Crook m and d.....	Hartford
Hinckley Bros staves.....	
Olds & Crandal sash doors etc.....	
Walker s m.....	
Bentley J W & C G sash doors etc.....	Hastings
Hortin & Jacobs m and d.....	Hazleton
Kellogg & Sawyer m and d.....	Heath
Starker D F s m.....	Hemlock
Blodgett D A m and d.....	Hersey
Gerrish Murphy & Co m and d.....	
Sutton & Fisher d.....	Hillsdale
Ferris R B m and d.....	Holland
Vanderveer E & Co staves and shingle mill.....	
Buzzell Bros sash doors etc.....	Holly
Bavid Robt A m and d.....	Hopkins
Hillard L m and d.....	
Chubb J F s m.....	Howard City
Lord & Klipp s m.....	
Morgan & Quick m and d.....	
Mason & Reed.....	
Barnard J E & Co.....	Howell
Blood E & Co.....	
Wright J W sash doors etc.....	
R B Hubbard & Co m and d.....	Huron City
Bates Gould & Gorham s m.....	Ionia
Colby E & Co m and d.....	
Stanton & Son m and d.....	
Wehber Bros m and d.....	
Bennett & Woods.....	Jackson
Brooks C F d (Detroit).....	
Baxter & Selfridge p m.....	Jonesville
Bixby Bros & Flagg d.....	Kalamazoo
Dewing & Son m and d.....	
Kellogg J E & Haltenhaus m and d.....	
Sweetland & Co.....	
Tyler & Turner p m.....	
O S Abbott & Co m and d.....	Kalkaska
Ballou Gustin & Co m and d.....	Kawawlin
Wade & Pettys m and d.....	Lake Port
Ciley Bros & Co sash doors etc.....	Lamont
Bellows W D & Bro m and d.....	Langston
Briggs N H.....	
Biggs Z E.....	
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	
Scofield 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	
Millie 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	Lealie	Gerrish E W	
Grout V H p m		Hugh W p m	
Russell S O		Fowle Benj m and d	Moscow
Moss Mills & Gage 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	Lowell	Tucker E J m and d	
Mason & Ecker p m		Hughes Bros m and d	Mt. Morris
Wooding & Hire m and d		Look Asher p m	
Donaher & Melendy m and d	Ludington	Weeks Huntton & 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	Wager & Fox m and d	
Canfield & Wheeler m and d		Wager & Whittman 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	
Filler & 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	
Paggeot & Thorsen m and d (Stronach Lumber Co)		Gluc W & Co m and d	
Peters R G & Co m and d		Hall S C	
Reltz 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	Marathon	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)	
Silvernall & 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)	
Sanborn 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 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		Bentley W m and d	North Branch
Bagley & Copps p m	Menomonee	Moyer A m and d	
Paison 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.....	Pavillon	Rust Eaton & Co.....	
Sager John m and d.....		Rust & Hay.....	
Everett J C sash doors etc.....	Paw Paw	Starlevant, 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.....	Powamung	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 Wm 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 Ind).....	
Richardson J C m and d.....	Plainfield Kent Co	Carr J M m and d (Union City Ind).....	
Topping M & Sons m and d.....		Dickinson Jerome m and d.....	
and staves.....	Plainsfield Livingston Co	Hafley P s m.....	
Bennett C H.....	Plymouth	Hart M & S m and d.....	
Ward David m and d.....	Pontiac	Helmer Geo W s m.....	
Ayers Learned & Co m and d.....	Port Austin	Pangborn & Borden s m.....	
Haskells & Spaulding m and d.....	Port Crescent	Roberts & Driggs m and d (Grand Rapids)	
Wood J L & Co m and d.....		Stone & Seeley m and d.....	
Avery & Murohy m and d.....	Port Huron	Twitchell C R.....	
Batchelor J F & Son m and d.....		Ware E & Co.....	
Bunce Z W & Son m and d.....		Wilkins W L m and d.....	Saraana
Fish A & H m and d.....		Mercer & Slater m and d.....	
Harrington D B m and d.....		Moffat A J m and d.....	
Haynes J m and d.....		Moore H D m and d.....	Saugatuck
Hibbard W B & Co m and d.....		The Saugatuck Lumber Co m and d.....	
Howard & Son m and d.....		Abbott Chas m and d.....	Scio Township
Jenkinson W staves.....		Bathwick & Stephens m and d.....	Scott
Johnston John & Co m and d.....		Collingham J m and d.....	Sebewa
Sanborn & Co m and d.....		Friend J m and d.....	
Skinner T S m and d.....		Ambruster & Weimer m and d.....	Sebewaing
Skinner & Ames m and d.....		Dunn J & Sons m and d.....	Seville
Wells F L.....		Blanchard J C & Co m and d.....	Sheridan
Bergen P P staves.....	Portland	Fargo D F & Co m and d.....	
Bowser, Griffin & Co sash doors etc.....		Stearns J D m and d.....	Smyrna
Dille J staves.....		Beckwith & Co.....	South Bay City
Erskine E J m and d.....	Port Sanilac	Braddock A C & Co p m.....	
Thompson T & J S m and d.....		Dunham & Whipple.....	
Prentiss Geo H m and d (Detroit).....	Prentiss Bay	Miller A & Co m and d.....	
Quimby J L m and d.....	Quimby	Stevens A & Co m and d.....	
Alden, Sutton & Co staves.....	Quincy	Watrous Bros & Co s m.....	
Hawley Martin.....		Watrous M & Son m and d.....	
Wilbur R W m and d.....		Byer G W & Co m and d.....	South Haven
Exelby Jesse m and d.....	Ridgeway	Wilson S P m and d.....	
Fritz F m and d.....	Riga	Ann Arbor Lumber Co m and d.....	South Saginaw
Pack, Jenks & Co m and d.....	Rock Falls	Briggs & Co s m.....	
French Geo m and d.....	Rockford	Bundy & Martindale s m.....	
Porter Dennis m and d.....		Bundy & Yeoman m and d.....	
Molitor A & Co m and d.....	Rogers City	Curtis & Eastbrook m and d.....	
Ayer A B m and d.....	Romeo	Bolce & Kearny m and d.....	Spring Lake
Andre Alex.....	Saginaw City	Cutler & Savidge m and d.....	
Arnold & Fulson (Albany N Y).....		Marada & Maxwell m and d.....	
Barnard & Binder m and d.....		Monroe Boyce & Co m and d.....	
Blanchard C N m and d.....		Sisson & Seymour m and d.....	
Burnham, Still & Co.....		Cross, Wright & Co m and d.....	Standish
Butman Myron.....		Bennett J E m and d.....	Stanton
Butman & Rust.....		Bock Wm m and d.....	
Chapin A B & Bro.....			

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 & Marey 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..... Tekonsha  
 Mc Cann Thos m and d..... Three Oaks  
 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..... Vassar  
 Martin H R m and d..... Vermontville  
 Squier M L m and d.....  
 Perry E m and d..... Vernon Isabella Co  
 Bell & Starkey m and d..... Vernon Shiawassa Co  
 Brand J C staves.....  
 Sayers Bros m and d.....  
 Martin, Mc Allister & Lawton m and d..... Verona  
 Puddock & Ballantine m and d.....

## CHICAGO.

Adams & Lord, d 363 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 av n e cor W Division.....  
 Batcheller & Slaght 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.....  
 Boardman Packard & Co d 94 Lumber st.....  
 Bradley Shepard & Smith d 782 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 562 Lumber st.....  
 Calkins & Fisher d 213 Archer av.....  
 Chapin & Foss d 214 S Canal st.....  
 Charney 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 431 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.....  
 Eggleston 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 881 Lumber.....  
 Esoro d Beach and Canal.....  
 Faun d 22d s e cor Morgan.....

Heartt Wm A m and d..... Wahjameja  
 Goodrich Enos m and d..... Watertown  
 Sutherland J m and d..... Watervliet  
 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).....  
 Hatfield & Pluter 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.....

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 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 80 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.....  
 Holt 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 Market 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 Buellen & Co d 234 S Water.....  
 Jones D H & Co m and d Room 16, 242 S Water.....

Jenkins & Murphy d 22d cor Ladin. .... Chicago  
 Johnson A B d 148 Kingsbury. ....  
 Kelley Wood & Co 23d s e cor Center av. ....  
 Ketchum Stephens & Co d 238 Sherman...  
 Learned S J d Center av s of 23d. ....  
 Long J Henry d 904 S Halsted. ....  
 Loomis & Davis d 304 Fifth av and Fisk. ....  
 Cleveland R A & Co d Lumber cor of 23d. ....  
 Loveland & Spencer d 23d cor Lumber. ....  
 Lowell & Barker d foot of Fisk. ....  
 LUDINGTON WELLS & VAN SCHAICK m and d  
 offices 244 S Water, yards Loomis N 22d and  
 I C R R. ....  
 McLaren d cor Franklin and S Water. ....  
 McDonald & Roe d Taylor s w cor Sher-  
 man. ....  
 McMullen & Officer d Throop s w cor  
 Lumber. ....  
 Martin S K d 438 Lumber. ....  
 Mears Bates & Co m and d 82 Beach. ....  
 Mears C & Co m and d 68 Kingsbury. ....  
 Mendon & Winter d Throop s of 23d. ....  
 Menominee River Lumber Co m and d office  
 200 S Water. ....  
 Merrill & Skeele d 845 Lumber. ....  
 Meyer C J L d 25 W Ohio. ....  
 Minard Ira & Co d Loomis N 23d. ....  
 Munro Robbins & Co d W 12th cor Lumber. ....  
 Nelson Bros d Grove n w cor 23d. ....  
 N Ludington Co m and d office 242 S Water  
 Noble & Little d Canal n w cor Carroll av. ....  
 Norris Lumber Co d 165 W 23d. ....  
 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 2 238 S  
 Water. ....  
 Pillsbury Bradley & Co d Main n e cor Co-  
 logne. ....  
 Pond & Soper d W 23d cor Loomis. ....  
 Porter & Co m and d Room 1, 261 Randolph  
 Queal Robt F & Co d Throop s of 23d. ....  
 Richards Norris & Co d W 23d cor Ladin. ....  
 Rietz Chas & Bro d 27 N Canal. ....  
 Roberts & Hull m and d 249 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. ....

Shoemaker & Howell d Throop N 23d. .... Chicago  
 Soper Brainard & Co d Polk cor Beach. ....  
 South Branch Lumber Co d 23d cor Loomis  
 Starrett & Bro d W 12th s w cor Lumber. ....  
 Stephens & Clarke Archer av cor Quarry. ....  
 Stevens Plowdon d 924 S Halsted. ....  
 Street & Chatfield d Rocket w end of Huron  
 Terry & Bro d w end 18th st bridge. ....  
 The B L Anderson Co m and d Fisk cor 23d  
 The Kirby Carpenter Co m and d Loomis nr  
 23d. ....  
 Thompson H & Co d Quarry bet Archer av  
 and the river. ....  
 Truesdell Gideon Room 6 242 S Water. ....  
 Turner E H & J S d 84 and 86 Lumber. ....  
 Waldo John d 120 N Canal. ....  
 Waldo Waters & Co d 7 N Canal. ....  
 Walkup & Neebes d 361 Lumber. ....  
 Washburn Edgar d 195 18th. ....  
 Weed A & Co W Chicago av. ....  
 Wilce Stephens & Co p m 23d and Throop  
 White Swan & Co m and d 252 S Water. ....  
 Whitbeck H Company m and d 257 W 23d  
 head of Fisk. ....  
 Whitcomb R S d 714 W Washington. ....  
 Wheelock Sylvester d foot of Fisk. ....  
 White Geo E d 122 N Sangamon. ....  
 White Joseph d 126 N Union. ....  
 White Rowell & Co d 34 W Chicago av. ....  
 Wolf Kauf & Essroger d Sebor bet Canal and  
 Beach. ....  
 Woodruff W N & J F d Grove foot of 19th. ....

## 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, 238 S Water. ....  
 Ewer & Aarhus 238 S Water. ....  
 Frazer 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  
 Jarton & Co d. .... Ackley  
 Rath John d. ....  
 Beymer G W d. .... Afton  
 Farnsworth D (hardwood saw mill). .... Agency City  
 Parkinson B d. .... Ainsworth  
 Gilbert, Hedge & Co d (Burlington Ia). .... Albion  
 Patton U L d. .... Albion  
 Taylor & Bro d. .... Alden  
 Johnson W W d. .... Algona  
 Putnam F L d. ....  
 Wilson John & Co d. ....  
 Chambers Bros & Co m and d (Muscatine  
 Ia). .... Allerton  
 Madigan M d. .... Altona  
 Lamb C & Son m and d (Clinton Ia). .... Ames  
 Jones & Bradley (hardwood mill). ....  
 Markham M A d. ....  
 Benton W S d. .... Anamosa  
 Blackburn John S (hardwood mill). .... Arcola  
 Bowers & Billmyer (hardwood mill). .... Auburn  
 Bryant & Sharp (hardwood mill). .... Augusta  
 Ainsworth & Waterman d. .... Avoca  
 Ledwick T d. ....

Goodsill & Bro d. .... Bedford  
 McConville H & Co. .... Belle Plaine  
 Henry Jas P d. ....  
 Lamb & Son m and d (Clinton Ia). ....  
 Wilson J D d, agent. ....  
 Brown M R m and d. .... Bellevue  
 Strasser & Schleck p m and d. ....  
 Parker & Upton (hardwood mill). .... Bertram  
 Wise J K d. .... Blairstown  
 St John Jas d. .... Bloomfield  
 Eutler & Meek p m. .... Bonapart  
 Kerr W B d (agent). ....  
 Carr Chas W d. .... Boone  
 Nowlin Bros d. ....  
 Lloyd & Suckney d. .... Brighton  
 Memer, John d. ....  
 Burdick A (hardwood mill). .... Bristol  
 Morris J W d. .... Brook  
 Conklin & Newcomb d. .... Brooklyn  
 Holmes T J & Son d. ....  
 Small W E & Son d. ....  
 Cass H d. .... Buffalo  
 Schuh L & Co m m. ....  
 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 & McLoesey m and d.....	Camanche	Ingram Kennedy & Day m and d.....	
Grafton 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 & Rowley 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 d.....		Sage E T & Co d.....	Eldon
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.....		Tombin D M d.....	Emerson
Hull J M & Son d.....	Chillicothe	Fond 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.....		Philpps 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 Bros & 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.....		Shorl 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.....	
Rand 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 Wm m and d.....		Jansen C d.....	
Roberts & Rohrbach, sash doors etc.....		Barnum, Case & Co d.....	Green
Schrrecker & 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 B 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.....	
Hozag, 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). Jesup		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.....	
McGavie & 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.....		Lockridge W d.....	Nevada
Wadsworth Smith & Co hardwood mill.....	Lake Mills	Gordon Burt & Weston d.....	Newell
Miller Sam'l d.....	Lamville	Nicholson & Fowler d.....	
Albert E T & Son d.....	Lansing	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.....		Kalbach Isaac & Son d (Oskaloosa).....	New Sharon
Klingaman & Felt d.....	La Porte City	Atwater & Hoskins d.....	Newton
Fleming & Bro d (McGregor Ia).....		Curtis & Manning d.....	
Zepley & Van Sant m and d.....	Le Claire	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	McGlatheery T K d.....	Oelwein
Cole Warren Jr d.....	Leon	Sylvester F d.....	Ogden Station
Fry Jacob hardwood mill.....	Libertyville	Whe-lock & Adams d.....	
Pancoast Joseph d.....		Elwell John d.....	Onawa City
Auracher G d.....	Lisbon	Freeland & Clegghorn 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.....	
Disbrow 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.....	
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
Seely & Phelps m and d.....		Kiser J M d.....	Ottumwa
Buttles & Vernon d.....	Malcom	Millard J J & Co d.....	
Moninger Ringland & Summers d.....	Malvern	Thornburg d.....	
Place A D d.....		Wilson J W d.....	Oxford
Buckley G R d.....	Manchester	Ketting A & Co hardwood mill.....	Palo
Dyer W d.....		Clarnoek C d.....	Parkersburg
Manchester Manufacturing Co.....		McGavie E J & Bro d.....	Pella
Bradley Geo T d.....	Maquoketa	Newport B F d.....	Perry
Calamer Stephen sash doors etc.....		Denn E J d.....	Plainfield
Joiner Bros & Co d.....		Mores W H d.....	
Shepardson J B d.....	Marble Rock	Page L A d.....	Plymouth
Ketchum & Bro d.....	Marengo	Mott J S.....	Postville
Morrison A J d.....	Marion	Fish & Hammond m and d.....	Prairie City
Alexander J S d.....		McGavie E J & Bro d.....	
Wood Geo F d.....		Steinbeck Silas d.....	Quarry
Cunningham D W d.....	Marshalltown	Bryson & Son d.....	Red Oak Junction
Stoddart H d.....		Clark J & Co d.....	
Woodworth W C & Son d.....		Rogers & Son d.....	
Ush Postrier & 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.....		Comstock D F d.....	Russell
Griffin B d.....	Masonville	Long E & H M m and d.....	Sabula
Armentrout & Co d.....	Mechanicsville	Risley & Day m and d.....	
King W W d.....	Mediapolis	Shaw D & Co m and d (Ean Claire Wis).....	
Funk W O d.....	Melrose	Rhames John N d.....	St Ausgar
Merrill L & Bros d.....	Millville	Howe W B d.....	Saylorville
Gill M & Son d.....	Minburn	Reeves Bros d.....	Seely Station
Brown & Gregory d.....	Mitchell	Caughran J D d.....	Shelby
Kimball & Mitchell d.....	Mitchellville	Bradley S S d.....	Sheldon

Lane H C d.....Sheldon  
 Mykoff Jas d.....  
 Fairfield & Phillips d.....Shell Rock  
 Bryson & Son d.....Shenandoah  
 Riley & Grant d.....Sibley  
 Schell Levi d.....  
 Schuck D M d.....  
 Brown & Yerger d.....Sigourney  
 Hedges & Spaulding d.....Sioux City  
 Rice H B d.....  
 Sanborn & Follett hardwood mill.....  
 Beermaker A d.....Solon  
 Anthony N B d.....Stanwood  
 Munson T S & Co d.....State Center  
 Tuthill J W d.....  
 Turner D W d.....St. Amboat Rock  
 Green B F d.....Storm Lake  
 Slutz Theo d.....  
 Stuart C d.....Stuart  
 Dennis & Averill d.....Tama City  
 Hall B A d.....  
 Lamb C & Son m and d (Clinton Ia).....  
 Culbertson John d.....Tipton  
 Johnson Bros d.....Traer  
 McCormick Bros d.....  
 Smith John d.....  
 Hauser & Son d.....Union  
 Mossman Alex d.....Urbana  
 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 hardwood mill.....Walnut Station  
 Avery Spangler & Co d.....Washington  
 Denny J M & Co d.....Washington  
 McCoughey & Co p m.....Washington  
 Sheridan & Hardestz d.....  
 Wilson & Wallace d.....  
 Allee & Lindley d.....Waterloo  
 Ankenny & Lusch d.....  
 Beck Newman & Bro.....  
 Cobb & Jones d.....  
 Cutler W H d.....  
 Johnson H M d.....  
 Moore M H & Co d.....  
 Bodeker & Maas d.....Waverly  
 Fairfield C d.....  
 Hunt & Holt d.....  
 Ewing J & Son d.....Webster City  
 Worthington W S d.....  
 Hoover B d.....West Branch  
 Gordon A d.....West Cedar Rapids  
 Deemer J A d.....West Liberty  
 Woodward Chas d.....West Union  
 Woods Hall & Co d.....Wheatland  
 Seldell & Co d.....Winthrop  
 Bush E H d.....Worthington  
 Paft D C stove factory.....Yankee Settlement

## MINNESOTA.

Getchell, C. S. & Co., m and d.....Afton  
 Olds & Lord, m and d.....  
 Pray, R. N., p. m.....  
 Seargent, Wm. P., d.....Albert Lea  
 Hicks, Wm. E., m and d.....Alexandria  
 St. Paul Lumber Co., m and d (see St. Paul).....Anoka  
 Washburn, W. D. & Co., m and d (see Minneapolis).....  
 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.....  
 Ellsworth, D., d.....Belle Plaine  
 Meldal & Sundel, d.....Benson  
 Vogel, August, m and d.....  
 Brainard & Whitton, d.....Blooming Prairie  
 Brainard Lumb. & M'fg Co. m and d.....Brainard  
 Brown, H. A., d.....Brownsdale  
 Paul, John, m and d (La Crosse, Wis.).....  
 Gilbert, O. S., d.....Brownsville  
 Paul, John, m and d (La Crosse, Wis.).....  
 Funk, John, d.....Carver City  
 Schrimpf, A. D.....  
 Grannis, S. S., m and d.....Central Point  
 Brown & Brockway, m and d.....Champlin  
 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  
 Parslow, 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.....  
 Patterson & McQuade, p. m.....  
 Shaw & Ingalls.....  
 Welland H. & Bro., m and d.....  
 Archibald, J. S. & E. T., m and d.....Dundas  
 Hutchins, John, m and d.....  
 Houlton & Nickerson, m and d.....Elk River  
 Mills, E. P., m and d.....  
 Long, G., m and d.....Elysian  
 Dunn, E., d.....Eyota

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

Walker, Judd & Veazie m and d.....	Marine Mille	Lindsay G W m and d.....	St Francis
Langdon, N. B.....	Marshall	Woodbury D m and d.....	
utler, 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
F arnham & 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
Eastman, 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.....	
Washburn, 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	Gaelin 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, Baekler & 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 & Mill m and d (Eau	
Whittle & Curlew 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.....	Wells
Backus Bros.....	Owatonna	Coleman C L m and d (La Crosse Wis)	Whalan
Crocker Bros & Lamereaux (Minneapolis).		Hays W W.....	Whilmar
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 & Simmons.....		Coleman C A d.....	Winnebago City
Red Wing Mill Co m and d.....		Balcom J & H O.....	Winona
Stout Jas H m and d.....	Reed's Landing	Gage A W & Bro.....	
Buttle & 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.....	
Reiley, Short & Co m and d.....		Tucker O C.....	
Taylor & Co m and d.....		Youmans Bro & Hodgins m and d.....	
Foss O p m.....	Rushford	Crocker Bros & Lamereaux m and d	
Parker G R (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	Phelan 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
Weinhold Marton.....		Graham Jas saw mill.....	Big Creek
Wyckoff & McFarland d.....	Appleton City	Harlow Greenberry saw mill.....	
Thompson J. C. Jr d.....	Arrow Rock	Bedford Bogaruns & Co p m and sash	
Garth H C d.....	Aulville	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.....	
Elliot Lumber Co saw mill and d.....	Bourbon	Rowe & Tolle.....	
Eales 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
Mallack Geo & Co d (St. Louis Mo).....	Brownsville	Lang Geo d.....	Hermann
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.....	Humansville
Nischwitz C F d.....		Hurd C d.....	Hunnewell
Ross Geo d.....		Brookings Jas R d.....	Huntaville
Matis John H d.....	Callao	Smothers & Taylor d.....	
Maupin & Elliott d.....	Camden Point	Gates & Anderson d.....	Independence
Steiger Bros d.....	Cameron	Shorridge 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
Staples Nelson p m.....		Eaton Henry d.....	
Morris James (agent) d.....	Cape Girardeau	Heinrich Agnes & Son d.....	
Crouch W S d.....	Carrollton	Wallendorf M saw mill.....	
McDonald W d.....		Reding John S d.....	Joplin
Beebe H F d.....	Carthage	Anderson James d.....	
Fisk & Haines saw mill.....		Chester Melville & Co d.....	Kansas City
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.....	Chamolis	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.....	Kirksville
Hughes B D.....	Clarkville	Sharp L R d.....	
Carpenter W H d.....	Clinton	Perkins G H d.....	Knob Nostor
McAllister & Bowling d.....	Columbia	Cathers D B d.....	La Clede
Lehofner & Tegeler d.....	Concordia	Quinsberry & Farmer d.....	La Grange
Morton J W saw mill.....	Corsicana	Irving & Co d.....	La Plate
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.....	Lebanon
Vineyard Jas d.....		Smith & Appling 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 mil.....	Elienorah	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
Douglass & Bro p m.....	Fredericktown	Carson Gee 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.....	Marshall
Hines M O d.....	Hamilton	Coleman & Stagner d.....	
Reddie Geo d.....		Page C G d.....	Martinsburg
Ailen & Knowl.....	Hannibal	Muster J S d.....	
Conlon J.....		Tapscott A W d.....	Maryville
Cruikshanks John Jr d.....		Anderson & Bro d.....	
Davis Bookee & Garth.....		Waterman J C & Co d (Barnard).....	Meadville
Dorman Uriah.....		Goodale L N d.....	
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 & Haynie d.....	Miami
Northwestern Lumber Co m and d (Eau Claire Wis).....		Hill M C saw mill.....	

Stanley & Stickler d.....	Milan
Carter C C d.....	Missouri City
Firth Wm d.....	Moberly
Hassett Bros d.....	
Petering E H d.....	
Porter W W & J B d.....	
Mathew John L d.....	Monroe City
Davis W A & B saw mill.....	Monticello
Kerr Wm d.....	Montrose
Morgan P A saw mill.....	Morgan's Mills
Bacon F M d.....	Mound City
Barber & Herms saw mill.....	Neosho
Neosho Planing Mill Co.....	
Robinson James & Co sash, doors etc.....	
Carey saw mill.....	Nevada City
Cleland J W d.....	Nevada City
Southwick & Goodall d.....	New Cambria
Fitzhugh J S d.....	New Florence
Forrest R W d.....	Norborne
Johns T R d.....	North Springfield
Kennedy & Druhe d.....	
Raithel J G d.....	
Berry & Bros.....	Omaha
Petty J J saw mill.....	
Potter B T d.....	Oregon
Carter M S saw mill.....	Osage City
Cerny & Vader saw mill.....	
Hollister & Co saw mill.....	
Maxwell J B d and saw mill.....	Osage P O
Hitt B M d.....	Osborn
Armick J F d.....	Otterville
Potter & Wharton saw mill.....	
Haycox P S saw mill.....	Overton
Williams H d.....	Pacific
Kiser Wm B saw mill.....	Palmyra
Ross & Kennedy saw mill.....	Paradise
Bower G M d.....	Paris
Wilson Wesley d.....	
Luthey Franklin d.....	Parkville
Harper & Ball d.....	Pendleton
Killian J C saw mill.....	Perryville
Crist Bros d.....	Phelps City
Barton J H d.....	Pierce City
Tribble Andrew d and saw mill.....	Platte City
Hockaday J N & Son d.....	Plattsburg
Stearns d.....	
Beegle & Meyers d.....	Pleasant Hill
Farmer & Jones d.....	
Hope Arthur d.....	
Boyce B F & Son sawmill.....	Point Pleasant
Barkley David saw mill.....	Potosi
Smitt Chas D saw mill.....	
Smith W D & Bro saw mill.....	
Walton & Co d.....	
Cadle Henry d.....	Princeton
Leeper John P d.....	Richmond
Baughner E H saw mill.....	Richwoods
Traub Geo & Co d.....	Rockport
Cruesbour Chas d.....	Rolla
Russell Giles saw mill.....	Russell's Mills
Holrah & Machens d.....	St Charles
Smith Job d.....	St James
Thummell W G d.....	
DeClue John p m.....	St Joseph
Dougherty Ray & Co d.....	
Hamilton Bros saw mill.....	
Hoagland Geo T & Son d.....	
Lyon Geo d.....	
Pinger Chas & Co d.....	
Smith & Swope saw mill.....	
Waterman & Barnard d.....	
Phillip Gruner, Jr., s. e. cor. of 9th st. and Cass Ave d.....	St. Louis
Woerheide & Luehrmann, planing mill, 813 Cass st.....	
Schulenburg & Boeckeler m and d.....	
Lesley, Garnett & Co., planing mill, 124 Olive st.....	
Parker, Spencer & Co., 3,922 Broadway m and d.....	
Knapp, Stout & Co., Bremen Ave m and d	
Patrick Bros. Lumber Co., Bremen Ave d.	
Schueller & Querl, n. Main st d.....	St. Louis
Phillibert & Johanning, planing mill, 1502 to 1518 Market st.....	
Theo. Bloess, Carondelet Ave. cor. Barton d.....	
August Leisse, 609 Chouteau Ave. bet. 6th and 7th sts.....	
Boeckeler A & Co m and d.....	
Boeckenkamp & Surkamp, cor. 9th and Monroe sts. d.....	
Lobsinger, Meegan & Co., Carondelet m and d.....	
Clear Water Lumber Co m and d.....	
Fleitz & Ganahl, 1320 Jackson st. d.....	
Methudy & Meyer, commission, 22 s. Main st.....	
Berthold & Jennings, commission, 28 s. Main st.....	
Beldsmeier H W & Co Eastern av d.....	
Williams & Alford, commission, 100 s. Main st.....	
Clement H S commission.....	
Cole & Glass p m.....	
Cronkhite A H (Wisconsin River Lumber Co Stevens Point Wis) St James Hotel...	
Davitt John W d.....	
Druhe W d.....	
Dryden & Reid d.....	
Hill Lemmon & Co m and d.....	
Hocker & Hengelsberg d.....	
Holmes J A & Co d.....	
Hymers Ed H d.....	
Luthy Jas d.....	
McIlvain Robt d.....	
Matlack Geo d.....	
Meyer John, Cass av d.....	
Mincke G F d.....	
Mississippi Planing Mill Co (Jas Patrick Pres't).....	
Naber Chas d.....	
Nuelle W & Bro m and d.....	
Olcott Duross & Co p m.....	
Ripsey Geo W & Co d.....	
Sterling John p m.....	
Wright J C & Co p m.....	
Yaeger H C South Main st commission.....	
Hodges & Sons saw mill.....	Salem
Wofford C P & Co saw mill.....	
Thornton J saw mill.....	Saline City
Dulaney Thos G d.....	Salisbury
Wayland Ely d.....	
Young Geo saw mill.....	
Waterman & Nast d.....	Savannah
Bloess W & Co d.....	Sedalia
Gauss C H d.....	
Ritter Richard d.....	
White & Meyer d.....	
Warren W d.....	Shelbina
Ralph Jas d.....	Shelbyville
McBride Jr C saw mill.....	Silver Lake
Hendricks & Co saw mill.....	South Point
Ganahl Fidel d.....	South St Louis
Lobsinger Meegan & Co m and d.....	
Knott & See p m.....	Springfield
McDonald O G d.....	Stewartsville
Shapter Wm saw mill.....	Taos
Marbes Chas d.....	Tipton
Hannestein W saw mill.....	Tuscumbia
Mabrey Thos.....	Twin Springs
Willard P G & Son d.....	Utica
Savage E d.....	Vandalia Station
Mundy W W d.....	Verona
Lowe W d.....	Warrensburg
Moore & Kinsell d.....	
Schowengend E & Son d.....	Warrenton
Trentman, Uarup & Co p m.....	Washington
Fletcher W d.....	Waverly
Miller Jacob d.....	Wellsville
Allen Jas F d.....	Weston
Wells John B saw mill.....	
Morse C O d.....	Windsor
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
Clemons A F.....	Coleraine	Monroe & Dillan d.....	
Turner & Hulet d.....	Columbus	Linsabangh 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.....	Farmington	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 E & Co d.....	Schuyler
Ballard J H d.....	Hastings	Barrett W B d.....	Seward
Cox d.....		Sorter Isaac B & Son d.....	Sutton
Grannis A B d.....	Hebron	Gray W H & Son d.....	
Tinker E F 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 W m 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.....	Holton
Jones & Co d.....		Dickey Jason d.....	
Lukens David d.....		Williams & Woener d.....	Humboldt
Clark H S d.....	Baxter Springs	Amos John d.....	Humboldt
Smith J H d.....		Stevens & Co d.....	Hutchinson
Patter E M d.....	Belle Plains	Edwards W C d.....	
Campbell Geo & Alex.....	Beloit	Bradford McCoy & Co m and d (Quincy Ill).....	Independence
Holbrook T saw mill.....	Blue Rapids	Culver & Rowe d.....	Iola
Stakes G B d.....		Hunt E S d.....	Irving
Nynant 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	Grovenor & Reddington.....	
Clippinger P & Son d.....	Centralia	Lewis & Allen d.....	
Churchill & Co d.....	Chanute	Lewis & Benson d.....	
Eaton Z A & Co saw mill.....		Simpson Bros d.....	
Manlove L d.....	Cherokee	Angell & Foster.....	Leavenworth City
Brown & Co p m.....	Chetopa	Chambers Bros m and d (Muscatine Ia).....	
Officer R W d.....		Colly & Beckford d.....	
Tyer 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.....	
All n F M & Co d.....	Edgerton	Tyler M S d.....	Manhattan
Fauble J M & Co d.....	Edwardsville	Richardson & Clark.....	Marysville
Kuny S J M & Co d.....	Ellsworth	Thomas R A & Co d.....	Muscotah
Armor 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
Chouston & Allen saw mill.....	Eureka	Dorman & Goraline d.....	Olathe
Raymond M B d.....		Hardin E F & Co d.....	
Hire 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	Gittings 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  
Thayer J E & Son d.....Paola  
West A S & Son.....Parkerville  
Wallis J A d.....Parsons  
Calkins & Fisher d (Chicago Ill).....  
Mixell W d.....  
Vinneman B & Co d.....Peabody  
Campbell G W d.....  
Chenault Bros d.....  
Edwards W C & Co d.....Peace  
Blaker & Bro d.....Pleasanton  
Horr Henry d.....Pomona  
Ricksecker G V d.....  
Waterman & Hobbs d and sash doors etc.....Russell  
Yoxall Sons & Co d.....  
Marbough & Block d.....Sabetha  
Turner & Sons d.....  
McHale P H d.....St Marys  
Eberhart & Sudendorf d.....Sallina  
Goodnow Frank d.....  
Congdon W d.....Sedgwick City  
Burnett A H d.....Seneca  
Mecham J C d.....

Pendleton B H d.....Solomon City  
S L Choate d.....  
Rogers J C & Co d.....Spring Hill  
Bradford McCoy & Co m and d (Quincy Ill).....Thayer  
Reed C d.....Topeka  
Tipton Bros d.....  
Wildner & Eck d.....  
Pope Clement d.....Troy  
Boetcher A F & Co.....Wamego  
Prunty Jas L d.....  
Hoak Thos d.....Washington  
Baker A M (agent for Hixon & Co Hannibal Mo).....Waterville  
Johnson & Bridges.....  
Palmer & Orton d.....White Cloud  
Taylor & Ortons, saw mill.....  
Davidson & Switzer d.....Wichita  
McClure W P & Co d.....  
Millis & Stearn d.....  
Pierce C F d (Emporia Ka).....  
Shellabarger Oliver d.....  
Holsberlein & Wholmeier d.....Wyandotte  
Wolcott A G d.....

### NEW YORK.

Dunham & Co J W d.....Albany  
Moir James d.....  
Pierce & Co m and d.....Buffalo  
Boller & Recktenwalt p m and sash etc.....  
Pooley Reinhardt & Co p m and d.....  
Loomis John S p m sash etc.....Brooklyn  
Pease Edward C p m sash etc.....  
Ackerman & Son d.....Edmeston Center  
Miner A W d.....Friendship  
Marvin B N d.....Jamestown

Lee Box & Lumber Co d and p m 11 ave and 21 st.....New York City  
Chapin A & W & Bro d 23d cor 11 ave  
International Ceiling Co 23 South William st.....  
Menzie W & Son d ft of W 44 st.....  
Moore J G 96 Wall st (Burnettizing Co)  
Godfrey Wilson d 82 Wall st.....  
Wells & Boutecon & Co 344 West st.....

### OHIO.

Alpena Lumber Co.....Cleveland  
C Chambers & Co d.....  
Richardson & Wadsworth d.....  
Sheldon S H & Co d.....  
Albro E D d 507 west 6th st.....Cincinnati

Barr Henry d 458 W 6th st.....Cincinnati  
Britton Isaac d 561 W 6th st.....  
Hubbard R B & Co m and d.....Sandusky  
Campbell L A & Co.....Toledo  
Gilson J E.....

### ILLINOIS.

Stewart John m and d.....Blackberry  
Hartman & Cook d.....Clayton  
Davis Cyrus A d.....Dixon  
Lovington John B d.....East St Louis  
Benedict Franz d.....  
Harnish M E d.....Lanark

Anawalt Denkman & Co m and d.....Rock Island  
Keators Wilson & Co m and d.....  
Keed M T d.....  
Robinson D T d.....  
Weyerhaeuser & Denkmann m and d.....

### NEW JERSEY.

Childester F B p m.....Jersey City  
Taylor Bros.....Montclair  
King W d.....Newark

Ripley David & Sons m and d.....Newark  
Watson Twitchell & Clark m and d.....

### MASSACHUSETTS.

Shephard Hall & Co No 6 central wharf.....Boston

Fernald W A No 3 central wharf.....Boston

### VERMONT.

Shephard Davis & Co d sash mould'gs etc Burlington

Knox Charles K.....Burlington

### PENNSYLVANIA.

Lane N B.....Brackwayville  
Carroll Geo & Bro d and p m.....Erie  
Wheeler & Hill d.....  
Ketchum & Co m and d.....  
Walbridge C H d.....  
Erie Lumber Co d.....  
Clemens & Co d.....  
Webster & Culbertson d.....Girard  
Bigler & Son m and d.....Harrisburg  
Williams Daniel & Son d 6th st.....Philadelphia

Galvin T P & Co d head of N Del ave Philadelphia  
Harrison Joseph S d Shackamaxon st wharf.....  
Woolverton & Tinsman 1151 Beach st  
Goodell Braum & Waters 1507 Penn ave  
Taylor & Hoffman d 2040 Market st  
Hochkiss & Barber m and d.....Williamsport  
Fessler P G & Co m and d.....  
Peck D M m and d.....  
Reading Fisher & Co m and d.....

### MISCELLANEOUS.

Cooke W C.....Pensacola Fla  
Skead J m and d.....Ottawa Canada

Hatchitt Ziegler & Spottswood d.....Frankfort Ky  
Towie Bros m and d.....Dutch Flat Cal



THE

# Wisconsin Lumberman

IS devoted exclusively to the Lumber interests of the Northwest, and will endeavor to become the champion and advocate of all measures pertaining to the welfare of those interests. Statistics and information will be gathered and examined with great care, that THE WISCONSIN LUMBERMAN may become standard authority with the manufacturers and dealers throughout the Northwest.

At least one member of the editorial corps will be traveling almost constantly through the Pineries of Wisconsin, Minnesota and Michigan, seeking information, statistics and opinions from reliable sources. Illustrations of prominent lumbermen and scenes throughout the different pineries will form a prominent and attractive feature of THE WISCONSIN LUMBERMAN, thus rendering it a pleasant and welcome visitor to the family of every Manufacturer, Logger, Landowner or Raftsman in the Northwest.

THE WISCONSIN LUMBERMAN will be increased in size in proportion as its patronage will warrant. It is for the manifest interest of all persons engaged in lumbering to assist in substantial manner our efforts towards furnishing a class publication that shall rank first among its kind.

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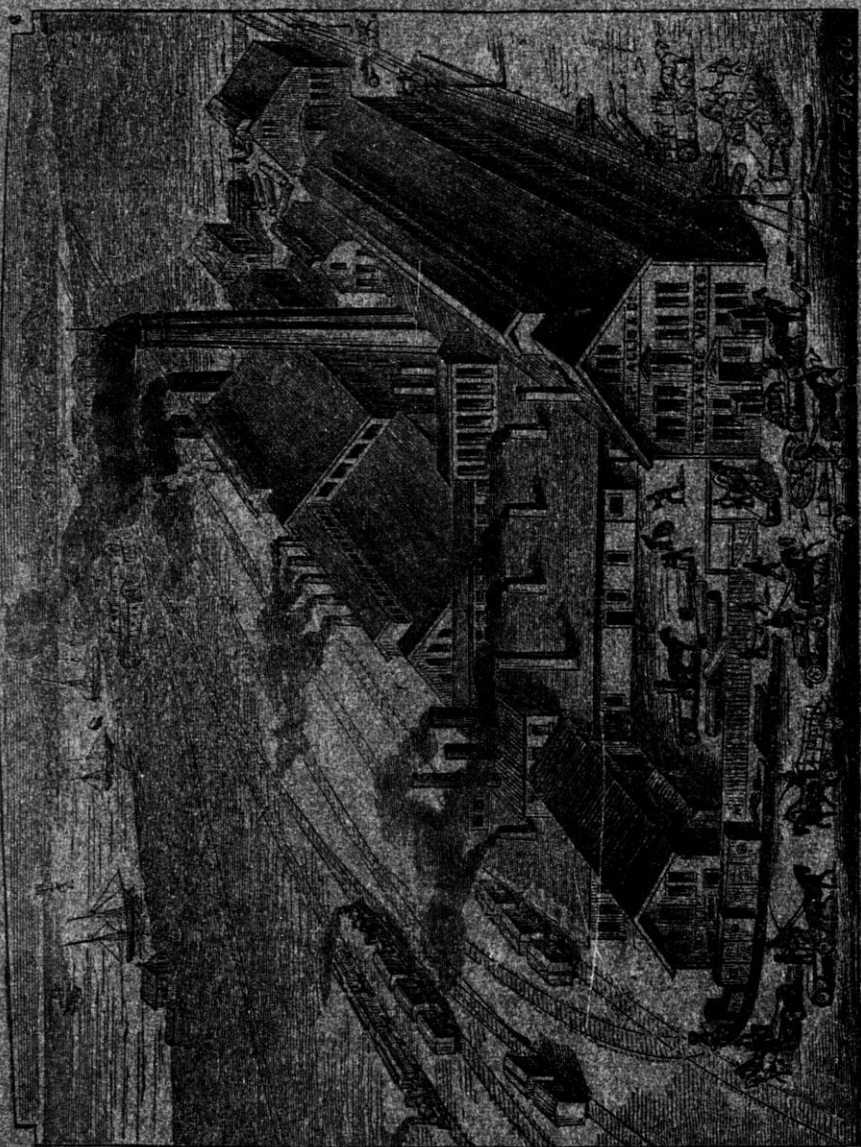
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