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THE Wisconsin Lumberman,

DEVOTED TO THE

LUMBERING INTERESTS OF THE NORTHWEST.

JULY, 1874.

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THE WISCONSIN LUMBERMAN.

VOL. II.—JULY, 1874.—No. 4.

INSPECTION OF LUMBER.

There is no stronger proof of lack of system in the lumber business than the great disparity of the inspection rules and laws of the different lumbering centers of the country. We can best illustrate the difference in rules of inspection by giving examples of those rules. For instance, the rules of inspection which were adopted last spring by the Lumbermen's Board of Trade of Chicago, declare that first clear lumber shall be:

"Not less than eleven inches in width, and no imperfections allowed unless fourteen inches wide or upwards; will then allow imperfections equal to sap one inch on one side extending the whole length of the piece, on pieces fourteen inches wide and well manufactured, but the face side must be perfect; as width increases will allow larger imperfections in proportion to the width, but not imperfections enough to decrease the value below the above-described piece."

Chicago handles nearly or quite a billion feet of Michigan pine yearly, yet mark the Michigan standard of first clear.

"First clear lumber shall not be less than eight inches wide, twelve

feet long, and one inch thick, and at such width and up to ten inches wide, shall be free from all imperfections. If the width is twelve inches, defects shall be allowed that will equal knots in the aggregate of one inch in diameter, or sap that will be equal to one and one-half inches in width on one side. If the width is sixteen inches, defects shall be allowed that will be equal to knots in the aggregate of two inches in diameter, or sap that will be equal to two inches on one side. If the width is twenty inches, defects shall be allowed that will be equal to knots in the aggregate of two and one-half inches in diameter, or sap that will be equal to sap three inches in width on one side."

In the Michigan inspection law allowances are also made for each additional half inch in thickness. Our readers will observe the wide disparity between the inspection law of Michigan and the inspection rules of Chicago, and by looking at their back numbers of the WISCONSIN LUMBERMAN they will, on comparing the two rules referred to, see that about the same difference runs all through the separate specifications. Wisconsin has no positive rules of inspection.

At the Mississippi markets inspection is hap-hazard. Philadelphia, New York and the eastern markets generally, hardly seem to realize that a definite inspection law ever existed in any locality. It is perfectly evident that if the great lumbering centers could agree upon uniform inspection rules and then that those rules might become the legal inspection guide by action of the different state legislatures, the business of lumbering would be vastly benefited. It is time that certainly lumbermen took some action in the matter of obtaining a law or laws that shall give some definite standard of inspection for the entire country.

THE LUMBERMEN'S CONVENTION AT WILLIAMSPORT.

The lumbermen who assembled at Williamsport, Pa., on the 23rd of June for the purpose of organizing a national association, were successful in their efforts. A national association of lumbermen has actually been formed. Thereby good has been accomplished. The convention was small in numbers, but powerful as the representative of wealth, business and energy. It was not expected that a gathering of lumbermen at Williamsport would result in greater good than in the laying of the foundation of an organization which is to eventually become powerful in its influence and protective of the lumbering interests of the country. The firm establishment of a great national association may and should result from the work now accomplished. Local and state associations are ab-

and solutely necessary to suggest organize measures which may subsequently be carried out through the force and power of the national association. A good beginning has been made by the convention at Williamsport. Let the work be encouraged. The amount of business transacted at Williamsport by the convention, although somewhat meagre in comparison to meetings of similar importance, seems to cover the entire grounds for which the convention assembled.

The convention met in pursuance of call, at 3 P. M., Tuesday, June 23rd, and was called to order by Edgar Munson, President of the West Branch Lumbermen's Exchange. In the course of appropriate remarks Mr. Munson nominated Hon. Ezra Rust of Saginaw, Mich., as temporary chairman of the convention. On Mr. Rusts taking the chair the active business of the convention commenced. The temporary organization was first perfected and a committee to nominate permanent officers of the convention was appointed; then the convention adjourned until Wednesday morning, June 24th, at 10 o'clock A. M.

The committee to nominate permanent officers of the convention reported as follows:

For President—Hon. L. D. Whitmore, of Warren, Pa.

Vice Presidents—Hon. J. G. Thorp, of Eau Claire, Wis. Hon. Ezra Rust, of Saginaw, Mich. C. T. Marston, Hartford, Ct.

Recording Secretaries — J. R. Smith, Buffalo, N. Y. H. H. Colquitt, Savannah, Ga.

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

The gentlemen nominated by the committee were unanimously elected officers of the convention. After a committee of five was appointed to report articles of association, the convention proceeded to discuss the question of reciprocity with Canada and the following resolution was passed:

Resolved, That, in the judgment of this convention, the proposed treaty of reciprocity with Canada would be injurious to the industrial interests of the whole country, and should not be ratified; that its effect upon the business which we especially represent would be most disastrous, and would compel a large reduction in wages in order to compete with the cheaper labor of Canada, or the suspension of business in many sections of the country where it is now extensively carried on.

The committee on articles of association reported Thursday morning, and their report was adopted after thorough discussion of the several articles of association as presented by the committee.

The committee on association and by-laws beg leave to report the following as rules and by-laws for the national association of lumbermen.

1. The name of this association shall be the national association of lumbermen.

2. Until the next meeting of this association the affairs thereof shall be conducted by a president, vice president, secretary and corresponding secretary, treasurer, and an executive committee of thirteen. The president and secretary shall be members of said committee, and five of its members shall constitute a quorum. All the aforementioned officers shall be selected by this convention, and shall hold office until a

regular election under the association shall take place; and shall perform such duties as ordinarily appertain to their offices respectively.

3. No person shall be eligible to membership of the association except such as are engaged in the manufacture of lumber or timber of any kind, round; hewn or sawed, or who may be the owner of timber lands; and such persons may become members on the approval of the executive committee and the payment of an entrance fee of \$10.

4. The Treasurer of this association shall give a bond payable to the president thereof, for the safekeeping or honest disbursement of such funds as may come into his possession for the association, said bond to be satisfactory, in amount and sureties, to the executive committee.

5. All disbursements by the Treasurer shall be on written orders of the executive committee.

6. The election of officers of the association hereafter, shall be at the annual meetings of the association, the first of which shall be on the — day of — at —, and the subsequent elections shall be at such time and place as may be appointed at the next preceeding annual meeting.

7. The President, if present, shall preside at all meetings of the association or executive committee, and shall have with the consent of the executive committee, power to call any and all extra meetings of the association and order any and all disbursements for expenses of the association.

8. The executive committee shall have power to appoint a corresponding secretary of the association in every state of the Union, whose duties shall be to correspond, upon matters pertaining to the interest of the association, with the general corresponding secretary of the association, and shall have power to change such appointment in their discretion.

It shall be the duty of the executive committee to keep a true record

of all their proceedings, and to make annual reports to the association of such information as may have been procured during the year.

The committee are of the opinion that they will best promote the interests of the association by proposing, until the next regular annual meeting of this convention, the foregoing rules and regulations, and recommend that the executive committee be required to prepare in detail a perfected plan of organization, to be submitted at the first meeting of the association to be held hereafter.

They recommend, also that the association be incorporated; but prefer to leave the question of how, when and where, to the executive committee.

The blanks in the articles reported by the committee were filled by designating the third Tuesday of September as the time of the next annual meeting, and East Saginaw was selected as the place of holding such meeting.

The committee on the order of business, reported the following resolution:

Resolved. That two committees, five each, one for white pine and one for yellow, from the different manufacturing points, be appointed by the chairman to recommend rules for the uniform inspection, measurement and classification of lumber, to report at the next meeting of this association.

Resolved. That a committee of seven be appointed to procure statistics covering the amount of white pine and yellow, and other valuable timber standing in the United States and Canada, and where located; also the production distribution and consumption of the same, and such other statistical information as would give the accurate idea obtainable on all matters of interest to the lumber trade, and your committee would

suggest that the corresponding secretary of the association be made a member of the committee, this committee to report at the next meeting of the association.

R. M. Forsman of Pennsylvania, offered a resolution, urging the importance of forming local organizations, which was adopted. On motion of W. H. H. Bartram, of Michigan, it was voted that the secretaries of local organizations be requested to report the basis of said organizations and the names of their officers.

On motion of Edmand Blanchard of Pennsylvania, it was voted that a committee of five be appointed by the chair to devise means to regulate the supply of lumber in accordance with the demand.

The committee on permanent organization made the following report:

President—L. D. Wetmore, Warren, Pa.

Vice President—J. G. Thorp, Eau Claire, Wis.

Treasurer—Bodo Otto, Williamsport.

Secretary—F. E. Embick, Williamsport.

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

Executive Committee—W. H. Armstrong, Edgar Munson, Williamsport, Pa.; R. K. Hawley, Baltimore; James R. Smith, Buffalo; T. L. Kinsey, Savannah, Ga.; George E. Scott, Pensacola, Fla.; C. T. Marston, Hartford, Conn.; H. M. Prentiss, Bangor, Me.; N. B. Bradley, Bay City, Mich.; Thad. C. Pound, Chippewa Falls, Wis.; Wm. Knight, St. Paul, Minn.

The gentlemen mentioned in the report of the committee on permanent organization were unanimously

elected officers of the national association for the ensuing year.

Mr. Gleason of Florida, introduced the following resolution, which was adopted.

Resolved, That the thanks of this convention be tendered to the West Branch Lumbermen's Exchange, of Williamsport, for the invitation, in response to which the convention met in this city, and for their very courteous and hospitable reception and entertainment of its members.

On motion of H. White of Pennsylvania, a vote of thanks was offered to the officers of the convention.

On motion of Mr. Bartram, it was ordered that the proceedings of this convention be published in pamphlet form, and distributed among the lumbermen of the United States.

The convention then adjourned *sine die*.

The discussion of the reciprocity treaty by the convention was quite thorough. The discussion showed conclusively that the interests of different localities and of the different branches of the lumber trade are diametrically opposed to each other. The first labor of the association should be with the object of harmonizing, so far as possible, these different interests. The matter of a reciprocity treaty with Canada must be thoroughly canvassed before the meeting of the next congress. The "NATIONAL ASSOCIATION" should be first and foremost in making that canvass. There is no doubt but the association, if strengthened by the manufacturers of the northwest, will exercise a very great influence and bearing upon the action of congress when the reciprocity treaty with

Canada shall again be brought before one national legislators for discussion and passage.

THE LUMBER TRADE AT THE EAST.

The lumber dealers in New York and Philadelphia bear about the same relation to the Southern, Canadian and Western manufacturers, as Western and Southern retail merchants and jobbers do to the great wholesale houses of New York. While there are nearly as many lumber yards in either Philadelphia or New York as there are in Chicago, yet by far the greater portion of the lumber sold by the New York and Philadelphia dealers is purchased by the carpenter and builders for local use, or is used by the cabinet and furniture manufacturers. Large quantities of yellow pine are handled in the eastern markets which is brought by cargo from Florida, Georgia and Virginia. The specialty in yellow pine is flooring, although large quantities of plank, dimension stuff and ship timber is also used. Philadelphia is now using considerable white pine from Michigan, although, very naturally, the Susquehanna yet furnishes the largest amount. Several firms are endeavoring to introduce cypress lumber to the favor of consumers, but with indifferent success. At New York Canadian lumber is largely used and is in better favor than Michigan lumber for the reason (aside from cost) that Canadian manufacturers furnish the particular standard of dimension—largely 13 ft. boards—required by the New York market. Some dealers in New York

complain that the Michigan standard of inspection is not high enough; believing that first clear, of any width or length, should be absolutely free from imperfection. The different varieties of hardwoods enter largely into the lumber traffic of the eastern cities, much of which consists of valuable foreign woods. Eastern dealers complain of general dullness in the trade, although when closely questioned they acknowledge fair average sales during the season thus far; also that the lumber business is as prosperous as any other branch of trade. The gambling which was acute last fall has in fact become chronic, and will only be relieved by a full realization that prices and business are assuming a true commercial basis in place of the extravagancies of the past decade. Lumbermen forget, when they complain of low prices in their particular line, that the stock in trade of the grocer, the dry goods dealer and the iron man is also at the bottom price. Considering the purchasing power of money now, it must be acknowledged that present profits on every board sold by the retail dealers are fairly remunerative. Only the debtor class have a right to complain, and they are chiefly among the manufacturers. The eastern yards are fairly stocked with both northern and southern lumber and trade is really good at the retail yards. The carefulness and economy exhibited in handling and selling lumber in custom yards, would be worth imitating by our western manufacturers and dealers, and would save many of them hundreds of dollars annually. At the present time eastern dealers

pay very little attention to western lumber or prices or condition of the market. They are governed by the southern pine districts and Canada. There will soon be a radical change in that respect, for even now there is an occasional reaching westward for the better grades. Michigan and Wisconsin clear stuff will soon find a better market in New York and Boston than it now does at the west and will be shipped eastward to supply a demand which cannot much longer be filled from present sources. Neither New York nor Philadelphia can boast of a lumber exchange or association of any kind in their particular interest. The result is pretty close competition, a "variety" of inspection rules and an unusually large number of "hucksters," who "middle" between a builder and anyone from whom they may be able to secure a bill of lumber at the lowest price. We respectfully submit to New York and Philadelphia dealers that an association or exchange at their respective cities would greatly advance the interests of their business.

The *Oshkosh Northwestern*, in summing up the work of the Fox and Wisconsin Rivers Improvement Convention, says that one advance step has been taken in the appointment of a committee to watch the progress of the work and appeal, when advisable, directly to the war department. The question of success is now in the hands of the President, who can secure it by appointing business men, and men interested in navigation on the executive committee, leaving the

politicians to serve their country in some other manner.

THE FALL PROSPECTS.

The WISCONSIN LUMBERMAN has repeatedly expressed the opinion that prices for lumber would be higher during the fall months than they were during the past spring. We still hold to that opinion. Notwithstanding reported dullness of the different markets a great deal of lumber is being handled by the retail dealers of the country and their sales are very nearly, or quite, up to the average for the time of year. There has really—averaging the different portions of the country—been a slight increase in business since the last of May; and there are several reasons why the market will probably continue to advance. The passage of the currency bill has already had some effect in enlivening western business and there is every reason to believe that ere long the west will materially feel the good effect of what may appropriately be termed, western inflation and eastern contraction. The farmers will add another season of prosperity to their already flourishing situation and will therefore consume more largely of lumber than usual. The low prices—even if an advance of two or three dollars per M., should occur—will be a temptation to buy. Consumers of lumber well know that they can never expect to buy at more favorable terms than are offered them this season; and there is now a strong tendency to purchase lumber which will not be used until fall. It has become

generally understood that there is no overstock of lumber even for the trade which has been considered so dull. There is a better feeling among dealers, as a class, than there was two months ago. Very many would gladly invest at present prices, much more money than is convenient for them to use now. As business revives for the fall trade there is every reason to believe that the lumber business will feel the good effect of that revival, to a greater extent than almost any other trade. During the stagnation which has effected all branches of trade during the season thus far, the lumber business has suffered least of all the manufacturing industries. It has even gained a little in activity while other trades have become more and more depressed. The tendency of the market may now be said to be upwards even if no marked advances in quotations are recorded. The general health of the lumber business just now is decidedly better than that of any other manufacturing business—poor through you may please to call it. There is a slight strengthening of the pulse now; it will continue; the fall season will be comparatively active and beneficial. And the season of 1874 will close with the lumbermen of the country in much better condition than they were in the fall of 1873.

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

"LOOKING PINE" IN WISCONSIN.

"Away, away from men and towns
To the silent wilderness."

Among lumbermen and in lumbering districts there may be found a class of men about whose duties the public knows very little. These men are known as "land lookers," whose duty is to go into the wilderness and there make a close estimate of the amount of pine on each sub-division of a section, and then determine whether it will pay to "enter" or rather purchase, the land thus estimated. These men are either employed by some mill owner or else go into the wilderness on their own account, and when desirable land is found sell their "minutes," (as their statement of the quality of land and amount of pine is called), to some land speculator who will enter the land giving them a third or one-half interest in the purchase.

Land lookers generally go in parties of two or three, going into the "woods"—as our readers must allow us to call the trackless wilderness where they operate—with teams as far as available, and then the men pack their outfit and travel on foot, guided only by the compass, to the desired location where they are to operate, or estimate, as they call their avocation.

A land looker's outfit consists of one good heavy blanket, a small axe, small compass—sometimes a shelter tent—and provisions, which consist principally of flour, salt pork and tea, making a pack of seventy-five or one hundred pounds which the men, by a packing-strap, fasten across their shoulders. Although the

fatiguing and lonesome march is taken up through the woods without a line or path to guide the land-looker; the first case where one has been lost or wandered far from his destination has yet to be found and reported. When the party have arrived near their destination they "take up" some section line and follow it to a section corner, when by a moments' inspection they can tell exactly where they are, by the marking on the corner-post, or in case that has rotted away, by the mark on the bearing-trees. Perhaps our reader will ask what is a bearing-tree? It is a tree marked by the United States surveyor to assist in perfecting the identity of section corners. There are generally four of these trees at each corner each faced, or blazed, on a line with the corner and then marked with characters and figures showing the range, township, and section, while their size, description, and location of the compass, together with the distance from the section corner is recorded in the records which are denominated "field notes," a copy of which every land looker can purchase by townships at the United States land office or at the school land office at Madison. In addition to these corner bearing-trees there are two quarter-post bearing-trees to locate the quarter-post, which are faced toward the post, one on each side, and marked so as to fix the location of the post in case it should rot out or get moved. In addition to these posts and bearing-trees the section lines are marked by blazing trees every few rods standing near

the line, these trees are marked on each side and the blaze denotes the direction of the line as they are marked according to the compass, either east and west, or north and south, and are of equal height on each side of the tree.

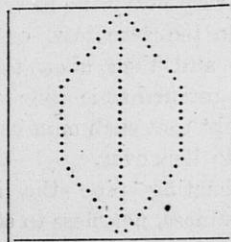
Arriving at the desired corner, the party make a supply depot, and leave all extra supplies, taking only enough to last them four or five days, one pound of flour, one of salt pork, and $1\frac{1}{4}$ oz. of tea is considered a day's supply for each man. Of course this supply and the quality are varied to suit circumstances and location. Our description applies to the professional land lookers, those who go into the vast timbered sections of northern Wisconsin and spend weeks and months at a time, looking up lands. These men lead a laborious lonesome life, separated from their home and civilization for a long time and compelled to work rain or shine, during the heats of summer or the cold snows of winter, when on their snow-shoes they travel the vast forests guided only by the little packed compass. Yet sickness is almost unknown to them, and for the true qualities of manhood they compare with any man or class of men.

When their supply depot is established the actual work of looking commences. They start out on some desired line and when night comes they select a desirable camping ground, near some stream, build a fire, stir up their flour, put it in the ashes to bake, cook their pork, boil their tea and supper is ready, and an appetite is never wanted to do it

justice. A few leaves are scraped together, or a few green boughs cut and piled up, the blanket spread and the couch of the tired land looker is ready for him. At an early hour he is astir, and

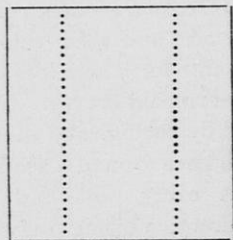
"Who would not rather take his seat
Beneath these clumps of trees,
The early dawn of day to greet,
And catch the healthy breeze,
Than on the silken couch of sloth
Luxurious to lie?"

When the land looker finds a piece of pine he seeks a section corner or a quarter post and then sub-divides the piece into forty acre lots according to government survey. The land is divided by pacing, and the professional will pace around a section and point out every post and corner with accuracy, varying only a few feet. Five hundred paces make eighty rods, and one hundred and twenty-five, twenty rods. There are several ways of looking over a "forty" and making an estimate of the timber. One is called circling and is done by three men, one paces off forty rods or to the centre of the forty on one side and then starts on a line for the opposite side, while the other men; one on each side circle towards the opposite, keeping about twenty rods apart in the centre. The following diagram will illustrate this manner of circling:

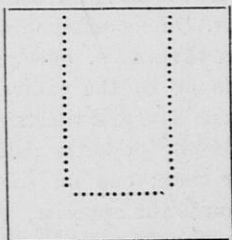


This method as will be seen allows the men to look at nearly every foot

of the ground unless it should be very heavily timbered. Another method is for each man (and is most generally adopted where there are two men) to pace off twenty rods from each side of the forty and then make a line for the opposite side, thus giving each man twenty rods on each side to look over. The following will illustrate the principle:



There is another form, which is generally adopted where there is only one man, and the following diagram will illustrate it:



This method allows one man to look it over carefully. Where the timber is very heavy the forty is divided into ten acre lots, or rather quarters, and then about the same course is pursued as is done with a forty except that each man has only ten rods to look over.

In estimating pine the height, size, soundness, nearness to streams, character of ground, and expense of running the logs to market, are taken into consideration and enables

the land looker to form a very accurate estimate as to its value. A forty that has five hundred thousand of pine is considered heavily timbered and valuable, if well located. As a rule a forty ought to have about one hundred and fifty thousand feet to make it desirable, although where well located and pine of a good quality it will pay to enter where there is only fifty thousand feet to a forty, provided it is near other heavy timbered pine.

A good land looker will, as a rule, run a line about five or six miles in one day, and commands from three to five dollars day and expenses paid, time counting from the time he leaves home until he returns.

A STRONG LUMBERING COMPANY.

We learn that our townsmen, Mayor Ludington and Hon. Daniel Wells, Jr., have incorporated their extensive lumber interest at Menomonee, Mich., and Chicago, Ill., under the name of "The Ludington, Wells and Van Schaick Company, of Michigan," with a paid up capital of \$600,000. This does not include a tract of pine land of 70,000 acres, estimated to contain 600,000,000 feet of standing pine timber, located on the Menomonee river.

Mayor Ludington is president of the company, Hon. Daniel Wells, Jr., vice president, and A. G. Van Schaick secretary and treasurer. The principal office of the company is at Chicago, as heretofore, with Mr. Van Schaick as manager. The business at Menomonee remains in charge of Robert Stephenson, superintendent of the company, also a stockholder.

HOT FACTS FOR LUMBERMEN.

Our Correspondent States Facts and Arguments Worthy of Particular Attention—\$5,000,000 Losses to Michigan Manufacturers Alone—The State of the Trade—Losses on Common Lumber—Forced Sales of 3,000,000 Feet Daily at the Chicago Market—The Remedy for Existing Evils.

Correspondence of the Wisconsin Lumberman.

CHICAGO, July 11, 1874.

No business can be conducted with comfort in this latitude with the mercury above 100° any place outside an ice-house; and the lumber trade least of all others, as actual labor constitutes so large a share of it.

Logs once put afloat in a stream are sure to reach a market in the form of lumber, as neither drouths nor freshets, panics or prosperity, can prevent their onward march to the consumer. The log famine of the past winter has resulted in a full supply, and the feast of lumber that is being sawed the present year bids fair to sicken some of the participants—not unto death, I fear, which, in a business sense, could but result in a great benefit to the general lumber trade.

Time is the great adjuster of such matters, and there is reason to hope that some of the younger members of existing lumber firms may live to see sales of lumber again made in this market at a profit.

The gradual decline in values since the financial troubles of 1873, has caused much complaint in all departments of business, and but few houses claim to have added materially to their assets. There seems, however, a desire to curtail the operations of large producers of most staple articles, and the result is a large reduc-

tion of indebtedness, and a better outlook for the future. What would have been the state of the iron market to-day had an increased amount of ore been forced upon the market? Clearly the result would have been forced sales of iron at a ruinous loss, and a cessation of business until the surplus stock was consumed.

What would have been the condition of the lumber market had each manufacturer reduced his product during the past winter instead of increasing it? No one can doubt that three-fourths the amount being marketed the present season would have been a full supply for the actual requirements of trade, and that a larger sum of money would have been received for that quantity than for the amount now being rushed upon the market. When lumber is sawed for forced sale, by cargo, afloat, by parties who cannot protect it, and the amount gradually increased, it becomes simply a matter of time when a crash will come; and when from this cause the market is broken down, seldom recovers speedily. This overstock is not confined to any locality, but extends throughout the whole lumber-producing section. A depressed market at all lumber centres attests this state of the trade, and I estimate a loss to Michigan manufacturers alone of \$5,000,000, caused by over-production, this sum being the saving made of timber had a smaller quantity been marketed.

The same state of trade may be looked for in 1875, and probably in 1876, as there is too much sawing capacity, and unfortunately too much wealth, controlling it. There exists

at present an idea among saw-mill proprietors that small mill owners will soon stand aside and surrender the business into the hands of those who have larger investments and more capital.

This theory may be safely abandoned, or perhaps it would be better to place it on file with that other fallacy of mill owners, that little if any logging will be done while lumber is selling at cost or less. The small mills will be the last to reduce their business, as generally they are not compelled to observe the same promptness in meeting obligations that larger firms must; and when not kept in operation by parties to whom they owe for supplies, they have the sympathy of all who reside at their place of business, and in many cases their suspension destroys the town they have created.

The decrease of supply must commence with large manufacturers. They have large tracts of pine worth preserving, and unless they reduce, no others will, until a loss occurs so marked that it will be headed by all alike.

The state of this market at this time, if carefully studied, must result in a benefit to the trade that supplies it, and it is no different from the principal markets of the whole country. The cargo market here has been overstocked since June 1st, and only the higher grades of lumber actually pay a profit. Sales of Manistee and Ludington dimension lumber are made readily at \$8.75 to \$9.00, but when all charges are footed up nothing remains as profit. Three millions of feet are daily sold at forced sale

during the active months of the season, and in most instances without profit. The retail business in lumber in this market is equally demoralized, and no branch of trade is more urged than this. Fully two-thirds of the firms doing a yard trade employ traveling agents to dispose of their stocks; actually forcing lumber upon country dealers has created a system of credit in this department of business second to no other.

It would seem that lumbermen have a partial remedy for the present evil of overstock in their own hands, as they will actually gain by carrying logs into next season, and they cannot hope to replace those now on hand for a lower cost, as the past winter was much more favorable than an average of seasons. I will venture a prediction that a decrease of receipts at this port of but one-fifth the amount now arriving, will result in an advance of fully \$2 per M. feet per cargo lumber, as the market actually requires the remainder. I confess I have no hope of such a course being pursued, but it is the only remedy that can be applied with success, as the slightest advance in price from an increased demand is likely to result in larger receipts.

When the pine forests of the west are exhausted, I think lumbermen may consider it time to act more in concert, and check the present great evil of over-manufacture.

* * * *

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

THE LUMBER BUSINESS IN NEW YORK.

New York city is the greatest retail lumber market of the country and probably presents a greater diversity of trade and interests than any other market in the world. The white pine from the north, the yellow pine from the south, walnut from the west, the usual variety of hardwoods from different localities, and foreign woods from all portions of the globe, make the lumber business of New York as cosmopolitan as is the heterogeneous population of the great city. The trade, which sustains over one hundred yards and handles hundreds of millions annually, is purely local in its character. The builders and contractors of the city use by far the greater portion of the lumber sold, while the balance is consumed by the various manufacturing establishments of cabinet and wood-work, and by the ship-builders. Yellow pine is very largely dealt in; we should judge to even a greater amount than white pine. Woods which are almost unknown at the west as material for lumber may in New York be considered standard commodities. Large quantities of spruce and hemlock are handled, and even cypress is coming into considerable favor. Should the white pine forests of the country be suddenly swept away, New York would miss them but little; so entirely are other woods made to take the place of the favorite of the west. Comparatively little common white pine lumber finds its way to New York, that which is used coming mostly from Albany and first

through the dealers in that city. In fact, dealers in New York buy more lumber from the wholesale dealers at Albany than they do direct from the manufacturers. Western lumbermen, as a rule, have long believed that the upper grades of their lumber would some day find its most profitable market at New York and the east. We believe that before transportation becomes low enough to enable very profitable shipments east, the great and growing west will absorb, at larger profits to manufacturers, every clear-stuff board that comes from the pineries of the northwest. The west uses, proportionately, much more lumber than the east uses, and the ratio is daily increasing in favor of the west. The great eastern establishments which manufacture sash, doors, mouldings, etc., complain that the western factories of similar kind have so competed in the market as to render their business of little or no profit. Probably the most prosperous lumbermen at the east are those engaged in handling exclusively foreign and hardwoods and veneers. Inactivity in the trade is complained of on all sides, yet the lumber business is more prosperous and active than the majority of businesses in the east. If dealers are making slow sales they are at least making some profit on the time, labor and money invested, which is more than can be said of many branches of trade. Inspection of lumber seems to be governed more by individual caprice than any settled and definite rules of inspection. As before hinted, a lumberman's exchange or board of trade in

Philadelphia and New York would be of incalculable benefit to the trade in those cities, and if so thoroughly systematized as that of Chicago, would do away with the huckster business complained of at the east and also result in permanent good in a number of important ways.

BIG DAY'S WORK BY A CIRCULAR MILL.

The largest day's work by a circular saw mill, of which we have ever heard is vouched for by one of the principal firms at Ionia, Mich. In order to record the matter for future reference we append the following letter describing the achievement.

IONIA, Mich. May 25, 1874.

STEARNS M'FG. CO., ERIE, Pa.

Gentlemen:—We cut at our mill on May 16th, with one circular saw and patent edger, 91,528 feet of lumber in eleven hours and thirty minutes. 75,000 feet of it was inch boards; the balance $1\frac{1}{2}$ and 2 in. Nothing thicker. All well manufactured. One man edged it all. We call this a big day's work. Do you know of any better? We used a "Stearns Mill and Edger".

Yours Respectfully,

E. COLBY & Co.

This letter from the firm of E. Colby & Co., is certainly a valuable indorsement of the Stearns mills. We can look back only a few years and remember that a sensation was produced from the fact of Hon. W. D. McIndoe's mill on the Wisconsin river having cut 28,000 feet in eleven hours. At that time this exploit was considered wonderful, and was supposed to be about the extent of man-

ufacture to which a circular mill could possibly be put. But improvement is the order of the day, and we see it fully exemplified in this great day's work of one of the Stearns Circular Saw Mills. When it is considered that of the 91,528 feet sawed, 75,000 feet were inch boards and that the balance was $1\frac{1}{2}$ and 2 inch stuff, the record is truly marvellous. Messrs. E. Colby & Co. have a first-class reputation, and we are therefore compelled to accept their statement without a doubt.

CHEAP MINNESOTA LUMBER FOR NEBRASKA.

The *Omaha Bee* is doing for the consumers of the Missouri valley and the manufacturers of Minneapolis what the WISCONSIN LUMBERMAN is doing for consumers in Illinois and Milwaukee dealers and manufacturers. It is trying to bring the railroad managers to a realizing sense of the importance of giving the lumber interests adequate and steady accommodation at reasonable rates. Our exchange says :

The want of cheap lumber has been felt in Omaha and Nebraska ever since the first white man set his foot upon our prairie soil. The want of cheap lumber has, in a great measure, retarded our progress as a city and state, and does even now prevent the inauguration of many public improvements and private enterprises. With cheap lumber we might be able to construct cheap dwelling houses, and cheap dwelling houses would result in a reduction of rents to the working classes. Such a reduction, coupled with our ability to procure the raw material at reasonable figures, would enable many of our small capitalists to undertake the

east at exorbitant figures. The opening of the through all rail route to the Minnesota pinery regions promises eventually, if not immediately, to supply Omaha and Nebraska with cheap lumber. Our readers are doubtless aware that the recent railway excursion to that region was mainly improvised for the purpose of acquainting the people of the Missouri valley with the advantages offered by the direct trade with the lumber makers of the Upper Mississippi. The *Bee* takes pleasure in placing the observations and conclusions of its envoy before the people of the state. They contain much valuable and interesting statistical information touching the manufacture of and traffic in lumber.

That Omaha is deeply interested in a direct importation of lumber from the Minnesota pine regions is evident from the fact that Omaha buys and distributes almost double the quantity of lumber annually purchased and distributed by St. Joseph and Kansas City. It now only remains to be seen whether the railroad lines between Omaha and St. Paul will pursue a liberal policy to encourage the building up of this traffic. It is gratifying as it is significant, that an Omaha lumber firm has already taken the initiative step by investing in a heavier bill of lumber than any purchased by the representatives of the other cities in the Missouri valley. It is to be hoped that the experiment will prove remunerative.

In this connection, we may as well also call attention to the superior inducements offered by the extensive manufacturing establishments of Minneapolis & St. Paul, in the quality and price of certain articles of merchandise, heretofore imported by Nebraska merchants, and small manufactures from the far east.

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

THE DECISION IN THE LOG SUIT OF GEO. COOK VERSUS THE U. S.

The readers of the WISCONSIN LUMBERMAN will remember that in the May number of this publication there appeared an eloquent argument, by Messrs. Smith & Stark, of Milwaukee, in a suit of replevin brought by the United States to dispossess Mr. Geo. Cook, of Green Bay, Wis., of certain logs purchased by him from Indians of the Oneida reservation. The case has been decided in the Supreme Court of the United States, and we are now enabled to give our readers further information on the subject.

The substance of the decision is to the effect that the fee of the Oneida reservation is in the United States, while the Indians have the right of occupancy, that this right of occupancy is unlimited, and to be exercised in the discretion of the Indians. If they desire the lands for the purpose of agriculture, they may clear off the timber to such an extent as may be reasonable under the circumstances. The timber taken off by the Indians in such clearing may be sold by them. But to justify any cutting of the timber, except for use upon the premises, as timber or its product, it must be done in good faith for the improvement of the land. The improvement must be the principal thing, and the cutting of the timber the incident only.

Any cutting beyond this would be waste and also unauthorized. The timber can rightfully severed for the purpose of improving the land, or the better adapting it to convenient occupation, but for no other purpose.

When rightfully severed, it is no longer part of the land, and there is no restriction upon its sale. Its severance under such circumstances is in effect only a legitimate use of the land.

If the timber should be severed for the purpose of sale alone; in other words, if the cutting of the timber was the principal thing, and not the incident, then the cutting would be wrongful, and the timber, when out, become the absolute property of the United States.

The presumption is against the authority of the Indians to cut and sell the timber. The purchaser, to maintain his title under a purchase from the Indians, must show that the timber was rightfully severed from the land. If he does not show that, the United States may seize or replevy it, or bring an action for its value.

A NEW CIRCULAR SAW MILL.

Practical mill men cannot fail to be interested in the description presented elsewhere of a new iron frame, double circular saw mill.

The first mill of this kind has just been completed by the Reliance Works, Milwaukee, under the incessant supervision of Mr. G. M. Hinkley its inventor. Mr. Hinkley is an inventor of genius and reputation, and the quality of work invariably turned out by the Reliance Works of Messrs E. P. Allis & Co. has gained that establishment the confidence of mill men in all quarters. Our sketch of this latest contribution of science to the requirements of manufacturers of lumber will be found on page 369 of this issue of the WISCONSIN LUMBERMAN.

PATENTS AND IMPROVEMENTS IN THE LUMBER TRADE.

For the week ending May 26th:

For Band Sawing Machine to Edward F. Gordon, Concord, N. H. The shafts which carry the saw-pulleys are sustained by and made adjustable upon curved saddles.

For Miter-Box to Horace C. Hough, Oshkosh, Wis. Adjustable and reversible stops are used, with guides adjustable to any angle for the saw, and for inside and outside measurement.

For Water-Wheel to Edward B. Lyon and William P. Lyon, Franklinton, N. C. The wheel is made star-pointed, so as to run equally well in either direction, and is supplied with water through either of two trunks which lead to opposite sides of the wheel. It is designed especially for operating presses.

For Mechanism for Loading and Unloading Lumber to Hans P. Tottenham and Gustav Osborne, San Francisco, Cal. A series of rollers, several of which are toothed and rotated, mounted upon a supporting-frame which may be adjusted at any desired height. The timber, being laid upon the end roller, is caught by its teeth and pushed to the next, and so throughout the series.

For Mortising-Machine to August Borneman, Lancaster, Ohio. Length of mortise is regulated by the stops and lugs on the carriage.

For Governor for Water-Wheels to Herry D. Snow, Cohoes, N. Y. The float in the flume causes the pawl mechanism to close the gate when the water runs low. A cam, operated by the gate-shaft, throws the pawls out of gear, when the gate is fully closed or opened, to prevent breaking.

For Frame and Guide for Muley-Saws to Alfred D. Clark, Hillsborough, Ohio. The frames and guides are provided with means of adjustment in various directions, accessible at all times to the operator.

WISCONSIN'S NEW LANDS

Description of the Timber and Farming Lands Opened to Settlers By the Wisconsin Central Railway—The Crop of Towns Springing up in the Wilderness—Information of Value to Immigrants and Capitalists.

Correspondence Wisconsin Lumberman.

GREEN BAY, WIS., June 20, 1874.

The Wisconsin Central railway is one of the grand enterprises of northern Wisconsin, which is destined to exercise a controlling influence in developing the resources of this portion of our state. With the Milwaukee & Northern railroad, (which it leased last fall), it has now two hundred and forty-eight miles of continuous line, from Milwaukee via Menasha and Stevens Point, to Malden, a point one hundred and one miles north of Stevens Point. There yet remains a link of fifty-five miles to complete the road to Bayfield on Lake Superior.

Of the 101 miles north of Stevens Point I propose to speak. I have recently passed over the road and made personal examination of the country, and notes on the character of the timber and lands that may be interesting and serviceable to those seeking homes or investments for capital in pine and farming lands.

Eleven miles from Stevens Point is

JUNCTION CITY,

where the Wisconsin Valley railroad crosses it. Knowlton, eleven miles beyond, toward Wausau is the present terminus of the Wisconsin Valley railroad, it being 73 miles from Tomah, where said road starts. A depot, engine house and two or three small dwellings constitute "Junction City."

Four miles from this place is

MILL CREEK,

containing a depot only. The country about here is flat, with moderate growth of pine and hardwood. Nothing very desirable.

Nine miles further on is

AUBURNDALE.

A block house for depot. No other building in view. The face of the surrounding country is flat; the timber red oak, basswood, elm, butternut, and pine, of fair quality, not so large as it is further up the road, but sound. Red oak of excellent quality; butternut, large and thrifty; soil good. The depot is located on section 22, township 25, range 4 east. Mill Creek is south of this station and bears some excellent pine.

Eight miles from here is

MARSHFIELD,

containing depot, log hotel, and store. The country about is more rolling; timber red oak, basswood, butternut, elm, and pine, chiefly, and of the best quality. For farm lands, this locality excels any on the line; soil rich and deep. The surrounding lands contain many settlers. The Fox River Company have many sections of land here, which they hold at prices ranging from \$8 to \$25 per acre according to location, timber, etc. The pine lands they offer at \$3 per M, stumpage.

Eight miles from Marshfield is

WALTHAM.

It has no depot building, except a log shanty. A mile beyond is a neat new two story building, intended for dwelling and hotel, no doubt, when fully completed. Country flat, with

long rolls, not unlike prairie lands. The timber is substantially the same as at Marshfield, and of equally good quality, being excellent and the soil ditto. This place is known as station 40, being 40 miles from Stevens Point, and is in the northwestern corner of township 26, range 3 east. For good pine, butternut, red oak, and basswood, this locality excels.

Six miles from this point is

UNITY.

It contains 8 or 10 dwellings, a store, Dr. Wells' office, the Unity House, by C. Duval, Spaulding & Co's mill, which is located on the Eau-Plain river. The railway company are engaged clearing off forty acres, on which to lay out a town plat. The soil is good, timber about of the same character as that at Waltham. Farming lands desirable. Many settlers in the woods around here. Abundance of pine.

Five miles beyond Unity is

COLBY,

containing thirty-five buildings, mostly in an unfinished state; four stores, on one the sign "Booth & Barry, Milwaukee Store," was conspicuous, a good sized hotel nearly completed and ready for guests. Lekey Graves, of Fond du Lac, has a saw mill one mile south of this place. There is a small shingle factory here also, doing apparently good work. Pine, basswood, elm, birch and maple are the prevailing kinds of timber, but they are not so thrifty as timber below. The soil is not quite so good, still this is fair farming land, and a fair pine region.

Mr. Thomas has a clothes pin

factory three-fourths of a mile west of Colby, running on birch timber.

Sixteen miles from Colby is

MEDFORD,

being 67 miles from Stevens Point. Semple & McDonald (Dan McDonald) have a large saw mill here on Black river, nearly ready for business. There are two hotels, large depot, a store, and a dozen or so large dwellings. There are many settlers in the surrounding country. The soil is not so good as below, but still it is fair. Considerable hemlock is found here, and I judge a thriving business is carried on at this place in the bark trade.

Beyond Medford to the end of the railway, in township 36, range 1 east, the farming land is no better, although the pine is in some localities much larger and finer. Township 34 has perhaps the largest quantity of what lumbermen call "uppers" of any township on the line. It is very large, trees three and four feet through, and ranging in prices all the way from one dollar to two dollars per M, stumpage. One or two mills are going to be put in here in townships 33 and 34 this season.

Government lands are lying open yet to be entered as homesteads. Many persons are locating there. The woods, as one man said, are full of "homesteaders."

A grand heritage surely, which by means of this railway, is being rapidly settled up and developed.

This paper is too long already and the half is not told.

I will close with a pretty accurate list of the milling establishment which have been located, some of

them built, some now in process of construction, and the rest of them expect to build this season on or near the Wisconsin Central railroad:

Kingsbury.....on.....	Sec. 22,	T. 25,	R. 4 E.
McMullen.....on.....	17,	26,	3 "
Buckstaff & Co.....on.....	35,	26,	2 "
A Chicago man.....on.....	—,	26,	2 "
Spaulding.....on.....	1,	27,	1 "
Lekey Graves.....on.....	24,	28,	1 "
Sands.....on.....	13,	29,	1 "
Semple & McDonald.....on.....	27,	31,	1 "
Theo. Coburn.....on.....	2,	32,	1 "

The above facts I obtained from A. D. Lunt, the competent land examiner of the railway company. He is not only very obliging but is very intelligent on all matters pertaining to lands in northern Wisconsin.

W. P. LINDSLEY.

WAUSAU-ON-THE-WISCONSIN.

Marathon County and its Magnificent Resources—Its Flourishing Capital—Its Vast Lumber Interests—Prospects for the Valley of the Upper Wisconsin.

Correspondence of the Oshkosh Times.

Although forty miles of shifting sands and dreary pine forests stretch out between here and the great world below, yet this infant city away up here in the wilderness hums along with all the energy and bustle of a metropolis.

On the banks of a great river, with natural powers in abundance to satisfy the needs of thousands of water wheels; skirted on the east for three miles by great pine tracts, containing some of the best timber to be found in the state, beyond which are magnificent farming lands now rapidly being settled up by an army of frugal immigrants by the way of Shawano, twenty-five miles to the east; across the Wisconsin river, great fertile, hard wood forests stretch away to the northwest, over Marathon and into Barron and Douglas counties.

"The old Wisconsin," springing from some hidden nook 200 miles above,

in the unknown wilderness, is amply reinforced by broad rivers and creeks, that give to Marathon and Lincoln counties a perfect net-work of natural irrigators and deep log-driving streams. A wonderful fountain of wealth is this great thoroughfare; unnavigable, to be sure, save in short stages, above Portage City, perhaps the Wisconsin is all the more valuable; all the more subservient to the wealth of man; for over a hundred miles, some of the finest natural water powers in the world follow each other in quick succession, while the fierce rapids, improved by human ingenuity, are now but slight barriers to the annual log drivers; and with due precaution, even lumber cribs are with but few exceptions safely piloted over the "Bulls."

At the foot of Big Bull Falls, situated on a bend of the river, 20 miles north of Marathon county's southern line, is the seat of that county, and until the latter's organization is completed in October next, of its recent offspring, Lincoln. The only town on the Wisconsin, of any note, above Stevens Point, Wausau has almost a monopoly of first-hand pickings in that rich but partially developed region. Its saw mills are kept busy night and day in transforming the raw material, cut almost within corporation limits, into the best quality of pine lumber; together too, with a large quantity of hard wood timber, for which, however, there does not at present seem so great a demand. Packed in "cribs," of which six form a raft, they are this season of low water drifted down stream and moored in fleets, ready for the "June fresh" to elevate the water line and carry them safely over the rocks and shoals, down the Wisconsin to the great Mississippi below, where a ready sale is always met at the great lumber marts of Dubuque and Winona.

The log drive is an extensive feature of lumbering operations on the Upper Wisconsin, and one in which

many capitalists and people are largely interested, for it furnishes ample development for money and muscle for the greater part of the year. The principal boom above Grand Rapids is at Stevens Point and thither all the logs are sorted and rafted for markets below that place. But the rivermen, raftsmen and pilots are chiefly of Wausau extraction, and Wausau capital wields no light oar in the mammoth operations which are each winter carried on in these great forests about us.

And Jenny, too, the much-talked-of but seldom-seen village fifteen miles up the river, and the very outpost of Wisconsin pioneerdom, is owned almost body and soul by Wausau capital. Its stores, its solitary mill and lumber camps are creations of Wausau men; a sort of suburb as it were. A village of 600 inhabitants, it is, like Wausau, purely a lumber town; it owes its chief notoriety from the double fact that it is the limit of not only civilization, but almost of lumbering, on the Wisconsin, and is to be the seat of the new-fledged county of Lincoln.

Marathon county is just upon the dawn of a glorious future. With hard and soft timber forests in endless profusion, fine streams admirably adapted to manufacturing of every description; a magnificent farming country to the northeast now being rapidly opened up under the homestead act; with every indication of vast mineral deposits in the eastern section, contiguous to Shawano county, and the undoubted existence of an iron ridge to the west of Wausau in Rib Mountain, and last but not least a hard-fisted, clear-headed, industrious and frugal people, who, having built for themselves homes in the wilderness, are now seeking to advance the great interests of the place that has given them bread. This country is yet young; its pioneers are in the very prime of life, in full possession of their finely-developed energies; and we nearly all will witness the

day when their spirit of enterprise and Yankee go-ahead-activeness will have transposed a howling wilderness into a blooming garden.

Ho! for the railroad! is the great cry of Wausau and Wausauites. They want to bridge over that terrible passage of the forty miles of sand that intervene between it and the "Point" below; and their hopes are, we trust, to be speedily met. The Wisconsin Valley railway company, to be sure, in consideration of \$35,000 in cash and 200,000 acres of Marathon county lands, had promised to drive the iron horse into Wausau by the commencement of the logging season. But it has stopped at Knowlton, only now half way, and further progress will not be undertaken this year, for want of cash. The company has hopes of getting eastern aid or selling some of its lands before next season, and it is whispered very confidentially that another call for \$25,000 more from Marathon county, will soon be made. It is highly improbable that so extortionate a "grab" could be carried through. However, perhaps it is only a canard.

The Valley railway will open up new channels of wealth to Wausau, in fact, speedily transform it into a rich commercial centre. The lumbermen, by the quicker and surer transit thus afforded, can take advantage of the markets and sell their wares in proper season, while the yeomanry, who will follow in its wake will never need to depend on a limited home consumption, but be able to export to less fertile sections.

A glimpse at Wausau and its present industries and other outward evidences of wealth, will not prove uninteresting. Of lumber mills, there are six; two run by steam and four by water power; these are owned by J. & A. Stewart, B. G. Plummer, J. C. Clark, M. McIntosh, and two shingle mills by H. Daniels. A planing mill and sash and door factory of good proportions is run by Werheim & Kickbush. J. C. Coon is erecting

a large tannery, for which industry there is every encouragement, as hemlock grows in thick forests just above the town. Three breweries furnish beer to whet the thirst of Wausauites; its population being Teutonic in a large degree. Two brick-yards near the city, are in full blast and turn out a good article for building purposes. A water power grist mill by Alderson & Silverthorn is kept busy at custom work throughout the year. New buildings are going up in all parts of the corporation; most of them private dwellings, of quite a superior character to those usually seen in frontier towns. We were informed yesterday that 130 new buildings were erected last year, 150 will probably be built this season. Aug. Kickbush has in contemplation the erection of a large brick store on Main street. A Beaver Dam man is also to build a large hardware store on Washington street next month. Pratt, of Stevens Point, is building a large wooden two-story building on Third street, for general store purposes. A number of small shops are going up in various quarters of the town, while to cap the climax, a substantial brick school house costing \$18,000 is approaching completion, on Jefferson street, and will prove an ornament and credit to Wausau.

A WOODEN RAILWAY IN WISCONSIN.

We learn that contractors are driving work on the Tomah & Chicago narrow gauge railroad from Wauzeka to Reedstown, and it is expected that trains will be running over that portion of the road by the middle of September. The rails used are maple, which are sawed out $3\frac{1}{2} \times 5$ inches. These are let into the ties and fastened at the ends with dowel pins, the gains in the ties being made a trifle larger than will admit the rails, and on either side of the rail are driven wedges in opposite directions. The maple rails are

obtained at a cost of \$15 per 1,000 feet, 15,000 feet being required to lay a mile of track. It is estimated that the maple rail will last over one year without repairs, hence the interest on capital invested in iron rails would re-lay a track every twelve months. Last fall, on the Elkader road in Iowa, a portion of the track was laid with maple rail, and an examination made of them this spring shows that they have not been injured in the least by constant use. There is no doubt that the wooden rail will be extensively used in sections of country where heavy capitalists do not wish to invest their money to the extent of putting down iron.

JOHN S. LOOMIS' SAND-PAPERING MACHINE.

The Brooklyn (New York) Moulding and Planing Mill, belonging to Mr. John S. Loomis, is one of the most extensive establishments of its kind in the United States. In the line of mouldings, especially, a reputation has been built up by this factory which causes its products to be particularly sought for by the more thoroughly informed builders of the middle and eastern states. This desirable reputation has been secured principally by the use of a machine which thoroughly smooths and perfects every piece of moulding manufactured. The machine is called "Loomis' Sand-Papering Machine" and is the invention of John S. Loomis, Esq. Letters patent were granted on the 26th of May, 1868, and improvements thereon, August 29, 1871. So many points of merit and value are observable in the machine that mention of them will interest the readers of the WISCONSIN LUMBERMEN. The machine

will thoroughly and perfectly sand-paper *thirty thousand* feet per hour of any style or form of mouldings. The corners of the mouldings are left remarkably clear and sharp—more so even than when sand-papered by hand. The surface of the moulding is left much smoother than ordinary hand work and is preferred by painters. One machine will sand-paper for at least four moulding machines and will not use over ten cents worth of sand-paper per day. A boy can use the machine as well as a man—saving skilled or expensive labor. Of so great value is the machine that until the present time Mr. Loomis has never consented—although often asked—to allow his patent to be constructed for general use; preferring to have the exclusive use and control of his valuable invention. So great has been the desire of parties interested in wood-working to secure machines, that Mr. Loomis has concluded that he will soon allow them to be placed upon the market. So rapid and perfect is the work accomplished by these machines that Mr. Loomis really owes it to the trade that they should come into general use; and we are glad to chronicle the fact that he intends placing them within the reach of the moulding and wood-working mills. The mill belonging to Mr. Loomis employs one hundred hands constantly and does an annual business of \$250,000. Illustrations of the sand-papering machine will soon appear in the WISCONSIN LUMBERMAN, when we shall expect to give a full and accurate description of it.

BURNETTIZING.

The process of "burnettizing" timber and lumber has as yet been little introduced in the west, or indeed but little understood or appreciated.

When we consider the enormous consumption of lumber, with its great variety of uses and frequent exposure to the destructive action of moisture, heat, and imperfect ventilation, the importance of some process to preserve it from decay can hardly be estimated. The value of such a process is not simply in the cost of the material preserved, great as that may be. Its greatest economy consists in saving the expense of reconstruction, as well as the inconvenience and delay of frequent repairs. In bridges, railroad tracks, ships' timbers and spars, sills of houses, &c., the cost of replacing is much greater than the first cost of the lumber. It should be borne in mind, however, that many of the cheaper kinds of lumber, when burnettized, are more durable and much cheaper than the more expensive woods, unprepared.

In the case of bridges, another consideration deserves mention. Of the many terrible disasters occasioned by the giving way of these structures, under a loaded train of cars, most have risen from the gradual and unnoticed decay of the timbers, which might have been prevented by subjecting them to the preserving process. As burnettized stuff is also comparatively unflammable, another danger to which railroad bridges are exposed, that of

taking fire by means of sparks from the engine, is greatly lessened. This last property entitles the process to a careful consideration of its utility in ships and steamboats, where portions of the timbers are extremely liable to take fire by the *continued* action of an elevated temperature from the heated machinery, boilers, and from other causes. The trifling expense of preparing the timber is of little account, when the question is one of even partially diminishing the liability to the terrible consequences incident to the burning of a ship at sea.

Burnettizing also protects wood from the attacks of insets, which, in certain localities, are as destructive of the strength and durability of timber as the most rapid process of decay.

The object of this and other processes is the preservation of wood, cordage, canvas, etc., etc., from wet and dry rot and mildew. The importance attached to this, and the extent to which investigation and experiment have been carried, is shown by the fact that no less than forty-seven patents have been secured for processes to secure this result, most of them within the past century. Of these, besides Burnett's, the most generally known and used, are probably Kyanizing, and the creosote or coal-tar process.

Kyan's process, patented in 1832, though attended with good results, is open to serious objections. Corrosive sublimate, or bichloride of mercury, the substance employed is very expensive, which is a sufficient objection to its general use. It is,

moreover, a virulent poison, and the process requires several weeks for its completion. From the corrosive action of this substance upon most metals, it cannot be used in close iron vessels, the advantages of exhaustion and pressure are thus lost, by which alone can timber be thoroughly impregnated and the process finished in a few hours.

In 1838, a patent was granted in England to Sir Wm. Burnett, for the use of chloride of zinc in the preservation of certain animal and vegetable substances from decay. This process has been extensively used in England, and more extensively in this country than any other. The chloride of zinc has proved to be effectual, and has the advantage of being safe, cleanly, and economical, while at the same time it acts as a purifier.

Burnettizing was introduced in this country by James B. Francis, Esq., agent of the proprietors of the locks and canals on Merrimac river, at Lowell, Massachusetts. This company, the original proprietors of all the water power used by the extensive manufacturing companies of that city, have many uses for lumber in exposed situations, as in bridges, locks, dams, sluices, etc. Mr. Francis, their agent, a distinguished civil engineer, thoroughly examined the various processes for preserving timber, and in the course of his investigations visited some of the largest establishments abroad. Satisfied of the utility of the Burnett process, at his suggestion, and under his direction, the works at Lowell were erected. These works were put up solely for

the use of the manufacturing companies; but finding they had sufficient capacity, large quantities of lumber have been prepared there for other parties.

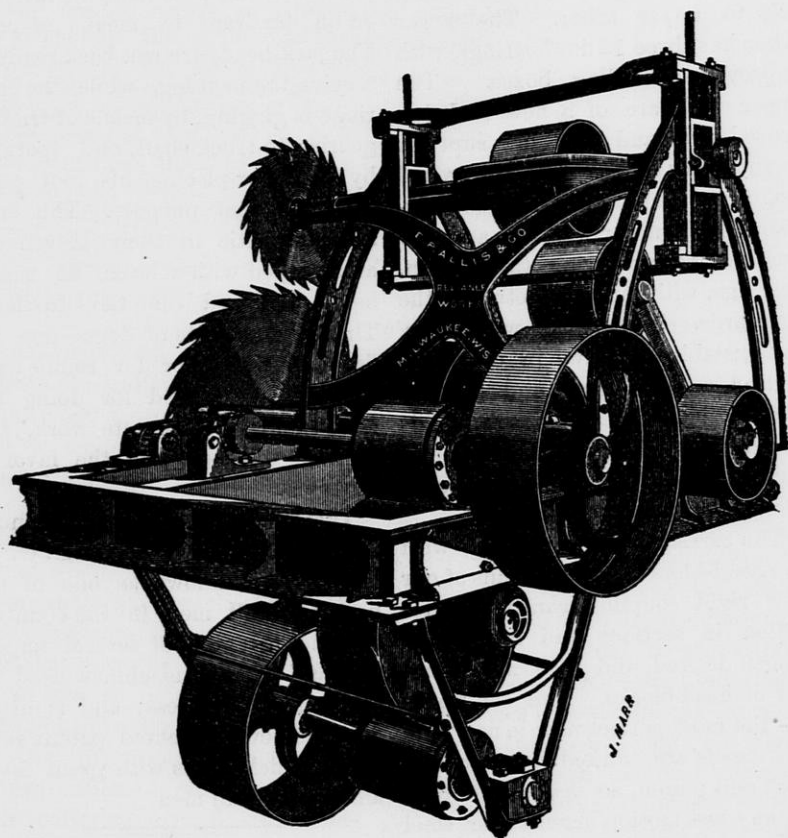
The points of advantage gained by burnettizing timber and lumber may be, briefly stated. It hardens and improves its texture. It preserves it from the adherence of animal or vegetable parasites and also from the attacks of insects. It completely preserves wood from wet and dry rot and renders it less inflammable. It is free from any odor, and is cheap.

E. ANDREWS' SAW WORKS, WILLIAMSPORT, PA.

The art of manufacturing circular, gang and mulay saws for lumber mills, has reached, in this country, such absolute perfection that in quality of material, shape and finish, it seems as if nothing further could be desired. All the different saw factories have their customers who prefer the saws that they have tried to their satisfaction, and are loth to believe that any other than their favorite brand is of equal value. We find, for instance, that in the great lumber manufacturing centres of the Susquehanna, the saws manufactured at Williamsport, Pa., by E. Andrews, are especial favorites, and that for perfection of finish manufacturers of lumber speak of them with unusual praise. Indeed, as these saws become known by use in other localities, their merits are speedily recognized and their popularity is assured. Mr. Andrews is a man eminently practical both in his labors and his views; therefore he has built up at

Williamsport a saw manufacturing establishment in which nearly all the machinery used is that of his own invention, and is calculated to assist in every particular whereby the saws may be made absolutely perfect in all respects. It would be impossible to give, in so brief an article as this, an adequate idea, by description, of the various ingenious devices patented by Mr. Andrews that tend to make the saws from his shop marvels of exactness and finish. Nor have we space to even enumerate the many valuable machines which Mr. Andrews' inventive genius has created and which are invaluable to all manufactures of lumber. We can only advise our readers to send for circulars that will fully explain and describe the machines built by Mr. Andrews. One of the recent novelties in the saw line is a circular constructed on an entirely new principle, and is one which will soon be brought to the attention of lumbermen. At present we cannot give a description of the new saw for the reason that it is not yet to be placed on the market. When Mr. Andrews is ready to make public the peculiarities of his new invention, the *WISCONSIN LUMBERMAN* will give its readers the benefit of an illustration and full description of the saw. We mention, however, that the saw is so constructed that the strain of the saw is relieved twice during each revolution by the saw itself. Mr. Andrews' advertisement will be found in this issue of the *WISCONSIN LUMBERMAN*.

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



NEW IRON FRAME DOUBLE CIRCULAR SAW-MILL.

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

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

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

30-inch pulley. The pinion shaft is driven by a 30-inch friction pulley, with 12-inch face and solid web center, turned all over, and is worked between the feed and gig paper frictions—which are 12 in. diameter and 13 in. face—by means of an eccentric box, operated through levers by the sawyer. These paper friction pulleys are so arranged as to be raised or lowered with ease, as may be necessary to secure perfect adjustment. The arbors are of steel, the lower one being 4 in. diameter and the upper one $2\frac{1}{2}$ in. diameter. There is a tightener-frame and pulley

hinged to saw-frame, 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. The index wheel is geared to set-shaft with fine, cut wrought iron gears, and as the jackheads move toward the saw the index wheel turns towards the setter, showing on its figured face the exact distance of jackheads 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 gidding, 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 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.

THE LUMBER TRADE OF ST. PAUL, MINNESOTA.

RECEIVED.		1873.	1872.
Lumber, feet.....	40,331,805		22,445,233
Lath, pieces.....	7,838,000		4,779,000
Shingles, pieces.....	12,603,000		7,409,000
SHIPPED.		1873.	1872.
Lumber, feet.....	16,886,873		10,302,295
Lath, pieces.....	583,000		773,100
Shingles, pieces.....	1,265,000		1,881,800
TOTAL RECEIPTS AND SHIPMENTS.		1873.	1872.
Lumber, feet.....	57,218,678		32,747,528
Lath, pieces.....	8,421,000		5,557,100
Shingles, pieces.....	13,868,000		9,290,800

Though very little lumber is manufactured within the city limits, yet the lumber business absorbs nearly half a million of the capital of our citizens. The above table will give some idea of its magnitude and growth. The concentration of rail-

roads at this point is fast making St. Paul the lumber centre of Minnesota. Though the mills may be scattered over the state, yet so rapidly is this becoming the great lumber mart for the jobbing of lumber, that nearly all mill owners find it incumbent upon them to maintain a yard or an office in this city.—*Seventh Annual Report of the St. Paul Chamber of Commerce.*

THE WILLIAMSPORT CLOTHES PIN.

The Williamsport clothes pin is an elaborate illustration of what man's ingenuity can accomplish. The pin, which is eminently a safety pin, is the invention of E. Andrews, Esq., of Williamsport, Pa., and possesses such peculiar and unusual points of interest that when it was examined by the honorable and practical commissioner of patents, that gentleman declared that never before had he been able to see so quickly the salient principle involved in the construction of a new invention. The pin is a sure prevention of clothes stealing, and hereafter we may allow our linen to dry and whiten in the pale moonlight and be assured of its safety. Not long since a Lock Haven larcenist who happened to be in Williamsport over night, attempted to appropriate a few open-backed shirts which were (as he thought) injudiciously left out in the night air, and was so suddenly checked in his larcenic endeavors by the safety pin, that for the first time in his life, he appreciated the enormity of his crimes. So moved and humiliated was the man that the very next morning he visited the inventor of the pin and gave him \$150. bill, with the remark, "Mr.

Andrews, you have saved me from the penitentiary and perhaps the governorship of Pennsylvania." There is not a man of prominence in the eastern cities but has taken some stock in this new invention. When manufactured, the pins will sell as no other invention of the times has sold. We are the sole Wisconsin agents for this invention, and when our lumberman friends are in Milwaukee we invite them to call and examine at the office of the WISCONSIN LUMBERMAN, the meritorious points of the safety pin.

A NOTEWORTHY PREDICTION.

The great lumberman, Hon. Isaac Staples, of Stillwater, was "bearing the market" a little during the visit of the excursionists from Missouri and Kansas. He told them, if the *Omaha Herald* may be credited, that the first-class logs will be cut in ten years, and twenty-five years will take all; that although his firm owned 160,000 acres of pine lands, mills and every appurtenance, he was not making a dollar. The business only paid 7 per cent. last year, to say nothing of interest, when he could have loaned his capital for twelve per cent.; and that the lumbermen were losing one dollar on every thousand feet they sell. But he predicted a marked advance in prices within two years. It is proper to say that other lumbermen substantiated the views of Mr. Staples.—*St. Paul (Minn.) Pioneer.*

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.



STAVE JOINTER.

This machine is designed for jointing cut staves, the knife being curved to suit the bilge of the stave. The knife is raised by two double spiral wire springs, one at each end of the machine; the springs are made double, and of the best spring brass wire. They are far superior to the elliptic spring, being much more lively in operation, less cumbersome, and more durable. There is a stave jointer resembling this in appearance, but with a stationery knife, the table and stave raising to the knife, and falling back by its own weight. The price of this machine, with the spring is \$75, without the spring \$70, while a spring machine for $\frac{1}{2}$ bbl staves and nail kegs is \$65.

Mr. O. L. Packard, 105 West Water Street, is agent for this machine, and other wood-working machinery.

INFLUENCE OF PINE FORESTS ON HEALTH.

Dr. Wilson, Medical Director of the United States Navy, contributes to the last number of the *Sanitarian* a very able and interesting article on "Drainage for Health," in the course of which he advances a new theory in regard to the proverbial healthfulness of the "pine districts." Discarding the generally accepted impression that their salubrity is due to the turpentine, or to the thick carpeting of pine leaves or "shucks," he argues that the credit is to be given to the roots of the pine-trees and the peculiar manner of their decay. As the trees of a pine forest get too thick to thrive, the large and more vigorous crowd out the weaker. The latter die, and the long tap-root which penetrates the surface, and beneath the hard-pan of subsoil, forms a sink or drain through which the superabundant waters find a ready outlet. As the pine tree is a rapid grower, the writer suggests that "it thus appears easy to make a healthy place for a village almost

anywhere, as we have only to scatter a few pine-cones on any suitable piece of land, and wait for three or four years. The Naval Hospital at Norfolk, Va., is separated from very malarious fields by a pine grove about three hundred feet wide, and this is found to be amply sufficient." Assuming this theory to be correct—it certainly bears the impress of common sense—we have not only the key to the healthfulness of the "pines" in New Jersey and other sections, but a valuable suggestion which is well worthy a practical test, and far more likely to prove a success than the fever-preventing eucalyptus, which for some time past has been engaging so much of public attention.

PENSACOLA LUMBER AND TIMBER EXCHANGE.

At a meeting of the above association, held on the 10th inst., seven members were present, the president, B. Chandler, Esq., occupying the chair.

The treasurer presented his report, which was received and placed on file. It was voted that a collector be employed by the treasurer, to collect the dues from members. Some remarks were made relative to the quarantine regulations now in force, to the detriment of commerce, but no action was taken.

A committee consisting of Messrs. Geo. W. Robinson, Thos. C. Watson and F. R. Goulding were appointed to draft resolutions expressive of approval of the National Lumberman's Convention at Williamsport, Pa., on the 23rd inst., and it is agreed that Mr. R. M. Bushnell, Sable, Conn., (of the the firm of Simpson & Co., Bagdad, Fla.) be asked to represent us at that convention, if convenient.

A committee, consisting of Messrs. J. B. Johnson, Geo. Marquiss and Cone of the Pensacola Lumber Co., were appointed to investigate the subject of classification and inspection of round logs and report at the next meeting.

The secretary gave notice that the election of officers would take place on 1st of July. The association then adjourned till that date.—*Florida Express*.

RICE LAKE, THE NEW SEAT OF BARRON COUNTY.

One of the Numerous Municipal Progeny of Knapp, Stout & Co.—The Rush of Immigration To This Point—Prominent Pioneers.

Correspondence of the Eau Claire Free Press.

Rice Lake is located at the outlet of the lake, whose name it bears, and has been built up by Knapp, Stout & Co., until recently, when it has been declared the county seat of Barron county, and lots are being sold to all parties desiring to build. The company have a small saw mill here, built four years ago, to supply lumber to settlers, but it is now too small and must soon be turned around and its capacity doubled.

On the opposite bank of the river, the company are getting together materials for the erection this summer, of a grist mill, with five runs of stone. The water power here is perfectly immense, when we consider the vastness of the water controlled by them in the lakes above.

They have a well built and well furnished hotel here, in charge of mine host, Ryder, who knows how to make strangers at home, and furnish rest for the weary. Eau Claire cannot boast a better landlord, nor a better kept house, and if there are in town any weary ones, who would like a week's rest, we would commend to them a trip to Rice Lake, and a sojourn with Ryder.

The store is on Knapp, Stout & Co's. usual plan; everything that anybody wants, from a pinch of snuff to a breaking plow, and to my surprise at figures that only cover the freight in advance of Menomoneie prices. It is, I believe, the only general store in the county, and does an immense business. This is in charge of Mr. Ed. C. Coleman, a genial, Christian gentleman, who stands boldly an advocate of his religion, and an example of its power. He is also county treasurer. We also met Mr. Staples, the book-keeper, and Mr. Johnson, the clerk; very gentlemanly and hardworking fellows. In one corner of the store, Dr. Whitney, a graduate of Michigan University Medical School, has a dispensary, and deals out the elixir of life to the ailing. We understand that he has a large and successful practice.

In looking around the company's grounds one is struck with the perfect order and neatness of everything, which can only be accounted for by the almost omnipresent Heller, who acts as street and police commissioner for the city.

Subscribe for the LUMBERMAN.

We also met Mr. Carpenter, of the Barron county paper, soon to be issued. Mr. Abbott being now in Milwaukee to procure press and stock for printing office. It is thought the venture will be a fine success, from the encouragement already given.

Many new houses are to be built here this summer, and the people are sanguine that it will soon equal in size, if not excel Menomonie, and they have good reasons for thinking so. The fertile soil on which it is being built, the vast area of extra farming lands by which it is surrounded for many miles, the beautiful lake that furnishes both water power and pleasure from its unusually excellent fishing, and which cannot be excelled for rowing and skulling, the vast pineries above, everything, indeed, that nature can do, has been done to make this attractive to man, and now he is utilizing it.

Many will say, away off in the woods. Yes, but as fine a wagon road as Wisconsin boasts makes it easy of access, while the grand natural scenery makes the pinery itself desirable. Why travel east, or west, or north, when within sixty miles of Eau Claire we have such a retreat?

Just above here are Long and Red Cedar lakes, noted for their fish. We tried it in the latter, and can say it is all that has been claimed for it, besides being the most beautiful lake we have yet seen in the west. It is as beautiful as either the Cayuga or Seneca, of New York.

Near the shores of the Red Cedar men have taken homesteads, and propose to improve them. We were over some of them, and can say truly, not easily equalled and never excelled in fertility and convenient surface.

We found N. G. Stafford and sons at work cutting a road from the main road at Red Cedar to the Pekayaman, a distance of three miles. Mr. Stafford was also building a house.

The rush for homesteads in Barron county now, is equal to the gold fever, probably over 2,000 persons will move into the county this year, and still there is room. While riding over this vast fertile track, much yet unimproved, it occurred to me that Horace Greeley must have just returned from a trip through an unoccupied country when he wrote his advice to young men, to "go west."

There are now 34 schools in the county, and at all the prominent points preaching, by the Methodists, Lutherans and Roman Catholics.

We could not hear that liquors of any kind are being sold in the county. Nor did we see a man intoxicated on our whole trip. C.

MILWAUKEE MACHINERY IN JAPAN.]

Late News from that Empire—Civil War Emment—Extracts from a Letter to Edward P. Allis & Co.

It is well known that our fellow-citizens, Messrs. Edward P. Allis & Co., of the Reliance Works, sent out to Japan, about eighteen months ago, on an order from the Mikado, through his minister here, a complete portable grist mill, with elevators and bolt chest complete. This mill was put up in a building erected for the purpose of exhibiting to the Japanese a great variety of improved machinery bought in this country, and has attracted great attention there. Late last fall, the same firm received an order to prepare and send out plans, specifications and prices for a complete first-class saw mill, of the kind used in our great lumbering establishments, and complied with the request. The last steamer brought them advices from their correspondent in Japan, from which we are permitted to publish the following extracts. The letter is dated March 10, 1874:

"In regard to orders nothing positive can be said till some time in May, when an officer of the government will be here, and everything will be discussed and settled for each department for summer operations. Everything would have been settled ere this, but there has been some trouble with the heads of the government regarding the Korean insult. The southern part of Japan demanded war against Korea; the middle and northern part oppose it so much that a veto of going to war was proclaimed by the prime ministers, causing some attempts at assassination of some of the ministers; and Iwakawa, the head of the embassy that visited America, and who is now a prime minister and highest in authority as ruler in Japan, was attacked by fourteen officers of the war class, cut in several places, but only wounded slightly. Also another of high rank was attacked but not killed.

In consequence of these things civil war is somewhat threatened at present, but if nothing more serious should occur, the improvements will go ahead in our department. Up to the time of this trouble everything seemed certain in regard to the erection of more mills. * * * Some time ago a large English gang mill which had been imported into the country was offered to the government for \$35,000, but the purchase was declined, as the most that could be cut with it was 25,000 per day of 12 hours.

The mill which Messrs. Allis & Co. propose to send out is designed to cut easily 80,000 feet in 12 hours.

CHICAGO HARMONIOUS.

The Sentiment of Chicago Dealers not Hostile to any Movement Tending to Unite the Lumber Trade of the Country.

From the Northwestern Lumberman for July.

THE WISCONSIN LUMBERMAN'S correspondent who wrote to that journal over the name "Chicago Dealer" last month, gave his personal views of the (then) coming convention of lumbermen in a way very likely to mislead as to the true state of feeling existing here concerning it. We do not believe there are many lumbermen here or in any portion of the lumbering sections, but would gladly favor any movement tending to harmonize the trade at large, and to its being conducted on more liberal principles generally. Different views may be entertained as to the manner, time and place of attempting such a movement, also as to the objects to be attained by its consummation. We do not believe any good can result from the publication of personalities of no interest save to the author. If "Chicago Dealer" takes exception to Mr. Symonds' prominence in calling the Williamsport meeting, so far as he is individually concerned, it is his privilege. But we do not think the public cares what his feelings may be upon the subject. We do not think he is justified, however, in giving cause for the inference that the sentiment of our lumbermen, as a body, is in harmony with his own. Our acquaintance with them is sufficient to warrant the assertion that such is not the case. We think a movement inaugurated for the general benefit of the lumber trade, and placed before them in its proper

light, would meet with no more hearty or general support and co-operation than from our Chicago lumbermen. As before stated, opinions might differ concerning time, place or other details. For our part we believe the publisher of the *Lumber Trade* is justly entitled to all the honor which can possibly accrue to him, for the persistency with which he has labored to effect his object.

"UP THE LINE."

Section 87—A Backwoods Tavern—And its Accommodations—Combined Apartments—A haracter—Exports—Prospects—The District Lookout.

A correspondent of the *Oshkosh Times*, writing from the "Palmer House, Section 87, Roxbury, June 10, says:

Palmer House? Section 87? Roxbury? Where is that, pray? I will tell you. It is not in Chicago, not by a—by 300 miles. Nor is it Roxbury Mass., by a thousand miles. And as for section 87, you will not find it laid down in any of the old or new geographies. But if you will take the Wisconsin Central railroad cars at Stevens Point, "bound up north" you may find it 87 miles therefrom. It is a cool, shady, place, as you may experience when you get there; an excellent summer resort for played-out doctors, lawyers, and ministers, and plenty of mosquitoes of the kingly sort, to stimulate healthy action of the muscles, and extract any surplus blood, thereby frustrating the insidious approaches of apoplexy. The accommodations at the Palmer House are extraordinary, especially for invalids. Since all its appointments have labor saving in view, there being a combined apartment, of ladies' and gents parlor, dining room, general and private sitting room, office, reception room, kitchen, pantry, store room, laundry, etc., all snugly compacted together within four walls of beautiful pine logs, 20x30. And the sleeping apartments "can't be beat" viewed economically. Only one flight of stairs, no need of patent elevators,

brings you plump into the gents dormitory and the ladies' chamber as well. A good-sized white sheet being the partition wall between the two. And as for ventilation and light, in the absence of windows, the air and the stars alike peep in at the cracks through the flat roof between the rafters. The beds, which are very good, not downy feathers to be sure, but nice, clean Norway or white pine plank, I judge, with the *soft* side up. They are ranged along under the low, hanging roof, heads to the centre, in true army style. And every fellow is expected to keep his position when once laid away for the night, and not turn over or set up in bed, if he has any regard for his head or shoulders, or even a decent respect for the close fitting roof. The economy and compactness of this pioneer hotel arrangement, is made plain, when I tell you that some sixteen or twenty beds are thus put into a room about 20x30 feet square. But the host and hostess, Mr. and Mrs. Palmer, are fit to keep the Palmer House of Chicago. A true gentleman and a lady. How they came here, why they came, and how they managed to gather flowers and pluck happiness out of dense forests of pine and hemlock, for nine long dreary winter and spring months, was not revealed to me. But so it seemed; with sturdy Norways for daily companions, an occasional homesteader or land hunter, or railroad hand for a change, they not only existed, but subsisted, not on pine cones either, but on fat elk and deer, and wrought out a good lot of real comfort, so they said. Hemlock bark is the chief article of commerce hereabout. Several camps are now in full blast, each having contracts to get out this season from 2,000 to 5,000 cords. The most of which goes to Milwaukee, at eight shillings per cord. I did not learn of any saw-mill or that any one was in progress above town 33. But oh dear! what magnificent pine trees.

Old chaps with heads brittle and decayed by age, but with bodies so full of "uppers" they would make a lumberman "fairly leap with joy."

Dry goods and wet goods too—bateing barley manufacture—are at a discount here. No chance to swindle anybody. Ten years from now peddlers and drummers may find some gain in their vocation as well as good to their patrons; but not now. A genuine Pennsylvania Dutchman, American born, young, not over thirty, wild as a prairie horse, full of energy and "wild oats," a sort of waif in the wilderness, had strayed up here just for the fun of the thing and taken a job at peeling hemlock bark. He related a "chopping match" which came off there recently with regular jubilation. Fifty dollars stake was put up and he was one of the two choppers. He chopped down 65 trees averaging fifteen inches through, and his opponent 62 trees, averaging ten inches. He got the \$50 but sprained his wrist in doing it, which necessitated a trip to Medford, No. 67, to enjoy the fruits of his labor.

LIMITING THE SUPPLY OF LUMBER.

The lumber manufacturers doing business in the vicinity of Glens Falls, Fort Edward and Sandy Hill, N. Y., held an important meeting on June 20th. Hitherto they have run their saw mills day and night. At the meeting on Saturday, it was resolved to run them half the time. This action is had in consequence of the supply of lumber being already largely in excess of the demand. Lumber is not made from logs secured the present season, but from logs obtained one, two and even three years ago. The supply of logs now *en route* to the mills, from the gathering of the past few months, is very great, and, consequently, the future cutting of logs will be diminished.

This action of the lumber manufacturers, throws out of employment large numbers of men. It will doubtless be followed in other localities, and thus many thousands will be deprived of work.—*Albany Argus*.

YALE LOCK MANUFACTURING COMPANY.

Progress of the Manufacture of Locks and of Bronze Ornamental Hardware—Description of one of New England's Leading Manufactures.

There is much that is curious and interesting in the history of lock making, which dates back to a far more remote period of history than is generally supposed. The labors of the antiquary disclose the fact that some of our most modern improvements in the construction of locks are merely the accidental reproduction of inventions that originated many centuries ago. The ancient Egyptians, those silent custodians of more than one of the "lost art," undoubtedly manufactured locks with tumblers which held the bolt until they were moved by the key, a device usually considered to be of modern origin. Amid the ruins of Thebes and in other localities iron keys have been found evidently designed for locks of this description.

That the Romans also made locks of intricate construction is evident from the numerous discoveries in Herculaneum and Pompeii, and in England there have been found keys which were doubtless contemporary with the Roman occupation of Great Britain. Ages ago the Chinese made wooden locks which operated upon precisely the same principle as the famous Bramah lock, which was invented in England in 1784, and was regarded as the first great improvement in lock making.

In the Bramah lock, so named from its inventor, the use of wards was dispensed with, and other peculiarities of construction gave it the reputation of being a lock which could not possibly be picked. For many years a lock of this kind was displayed in the window of the office in London, with a reward of two hundred pounds to any one who could pick it. This feat was accomplished in 1851 by

Mr. Hobbs, whose first attempt occupied nineteen hours, owing to the breaking of one of his instruments, but he subsequently repeated the operation three times within an hour.

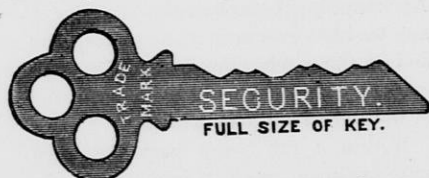
The next lock of any prominence was Chubb's, invented in England in 1818. This was also easily picked by Mr. Hobbs. At the London exposition of 1851 Mr. Hobbs presented for the attention of mechanical experts a lock made by Mr. Pyes, which defied the ingenuity of the best English locksmith, but was finally picked by the late Mr. Linus Yale, Jr., who was for many years the president of the Yale Lock Manufacturing Company, of Stamford, Conn. This triumph of American skill was frankly recognized by Mr. E. B. Denison, the celebrated lock maker of London, who says that American locks "are vastly superior to any we have ever seen made in England; and on the whole, the United States are evidently ahead of us in the manufacture of both good and cheap locks."

Within a few years past the hardware business, in all its innumerable departments, has become an interest of immense importance in this country, and among the countless articles embraced under the generic term hardware, locks may be regarded as one of the most prominent. There are of course numerous claimants for distinction in this branch of production, but for ingenuity of design, excellence of material, finished workmanship, and above all, absolute security, none sustain a higher reputation than the celebrated Yale locks above alluded to.

As first manufactured nearly thirty years ago by their inventor, the late Mr. Linus Yale, Senior, these locks were a decided improvement over their predecessors, but their range of application was limited, and their costliness prevented very general adoption. Some years subsequently Mr. Linus Yale, Jr., invented a lock of different and superior

construction, having a flat, folding key, but his attention being soon directed towards bank locks, regarding which great interest was then felt, he for several years confined his labors to their improvement, patenting numerous inventions of great value.

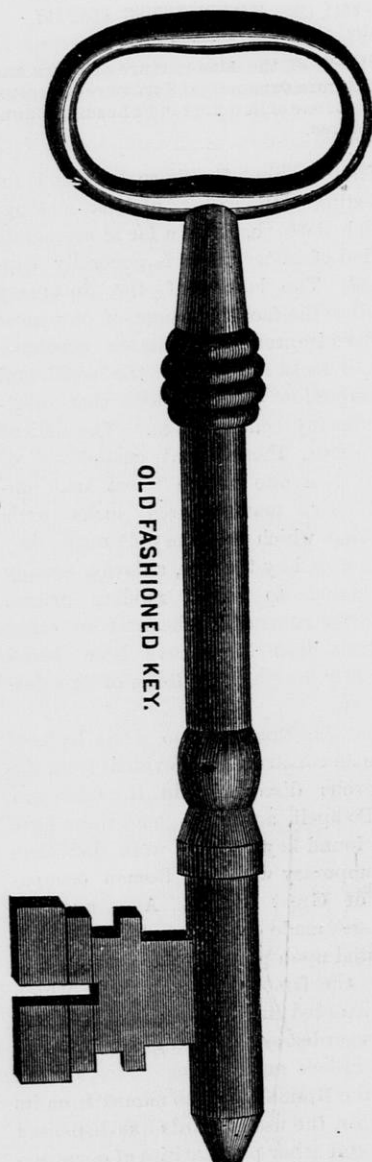
In 1860 Mr. Yale resumed the production of key locks for general use, and soon afterwards patented a style of lock which, with subsequent improvements, has since rendered his name so celebrated. It was of the description called a "pin lock," identical in some respects with that previously made by his father, but possessing the distinctive feature of a key of thin, flat steel, less than an inch and a half long, and weighing but a fraction of an ounce—as shown in the following cut:



All other locks then made had large, heavy keys, as do nearly all others now manufactured, and the thicker the door, the longer must be the key in order to reach the lock, the following being a fair specimen of the keys then in use for heavy doors:

In the Yale lock the escutcheon, or "tumbler case," enclosing the pins upon which the bits of the key operate, is placed near the surface of the door, projecting slightly, so that the long, clumsy shank of the key is dispensed with, the bow and bits brought closely together, and the depth of the escutcheon decides the length of the key, without regard to the thickness of the door.

In general terms we may designate the distinctive peculiarities of the Yale lock as being the arrangement of the parts acted upon by the key, and the shape and size of the key itself. Th



These prominent features may be illus-

trated by the description of a Yale mortise night latch, an escutcheon of this kind being applicable to almost any style of mortise or rim lock; flush locks—for drawers, desks, etc.—differing only in having the body of the lock contain the mechanism which is here enclosed in a separate escutcheon.

Sectional views of the escutcheon of a Yale night latch, showing the principle of construction embodied in all the Yale locks:

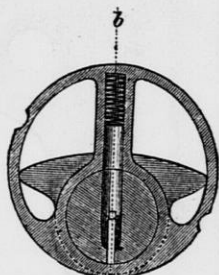


Fig. 2.
a

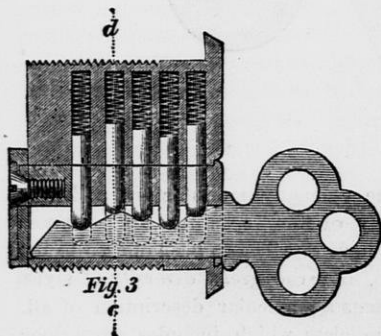
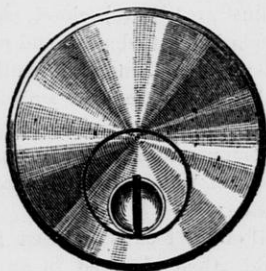


Fig. 3
c



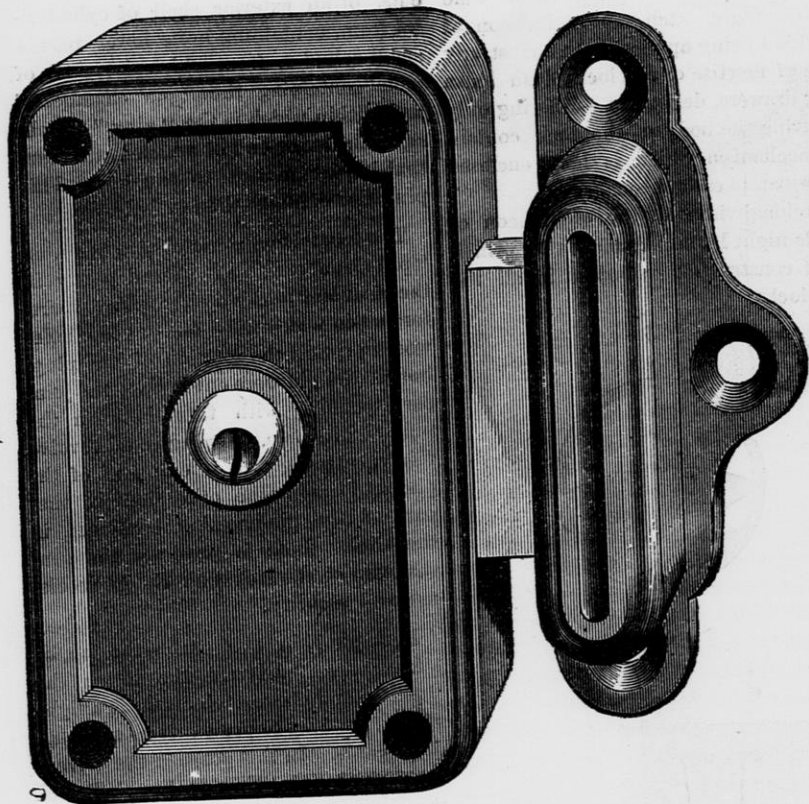
The escutcheon consists, as will be seen from an examination of the above

cuts, of an exterior shell of cylindrical form, containing in its lower part a small cylinder, from which rises a rib of metal containing the "pin chambers," and within which is the "plug," attached to the inner end of which is the cam that imparts motion to the bolt. This plug also contains the key hole.

The escutcheon contains five holes, or "pin chambers," each formed partly in the shell and partly in the plug, therefore a pin which filled one of these holes would prevent the rotation of the plug, but, if the pin were cut in two, the joint corresponding with that between the plug and its hole, the plug could revolve freely, carrying with it one half of the pin, and leaving the other half in that part of the pin-chamber contained in the shell. Such is precisely the construction of the lock and its great element of security.

Each pin is in two parts—the upper termed the "driver," the lower the "pin"—and above each driver is a light spring, tending to press drivers and pins downwards. In this position the drivers intersect the joint between the shell and the plug, completely preventing the rotation of the latter. If, by the insertion of a knife blade, or other instrument in the key hole, the pins are all raised as high as they will go, it will be found that they bar the motion of the plug as effectually as the drivers did, or if four of the pins are elevated to their proper position, the fifth will still prevent the revolution of the plug.

To open the lock, therefore, all the pins must be raised simultaneously to just the proper height, which can be done only with the right key, since the variation of one-fiftieth of an inch in the elevation of either of the pins will prevent the opening of the lock. This explains the immense variety of keys and wide range of permutations of which the Yale lock is susceptible, surpassing



YALE STORE DOOR LOCK.

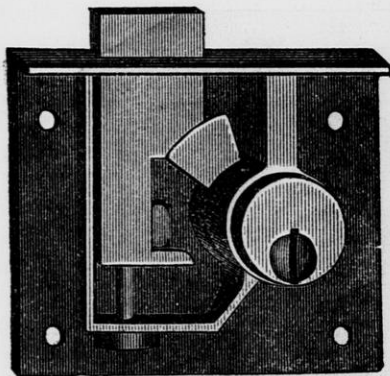
the capabilities of any other lock now made.

The width of the key admits of ten different "bittings," or depth of notches, therefore a lock with but one pin could be variously "set up," so as to be opened by ten different keys. In a lock with two pins the number of changes, or varieties of keys, will be 100; three pins, 1,000; four pins, 10,000; five pins, 100,000; six pins, 1,000,000; seven pins, 10,000,000. The least number of pins contained in any of the Yale locks is four, as in drawer and desk locks; the night latches have five; the postoffice, heavy store door locks, etc., six; and the "safe deposit" locks—for inside doors of safes, vaults, etc.—have seven pins.

The company manufacture a larger variety of fine locks for all purposes than have ever before been offered to the trade, but the great diversity of styles prevents a particular description of all.

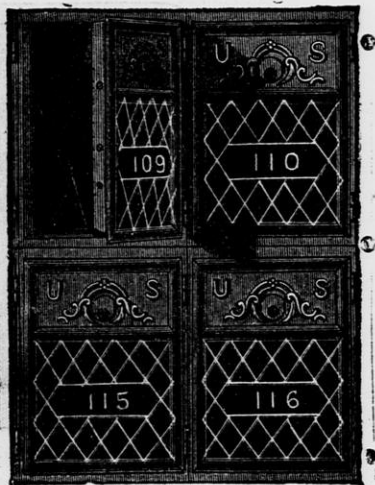
The class which includes store door locks (as illustrated above), closet, chest, drawer, cupboard, safe deposit and post-office locks; rim and mortise vestibule and night latches, etc., may be sufficiently illustrated by a description of the mode of manufacturing the ordinary drawer lock, of which the following is an illustration:

The shell of the lock is first cast in a sand mould, then cleansed in an acid bath, and finally reduced by revolving cutters to the desired thickness. The



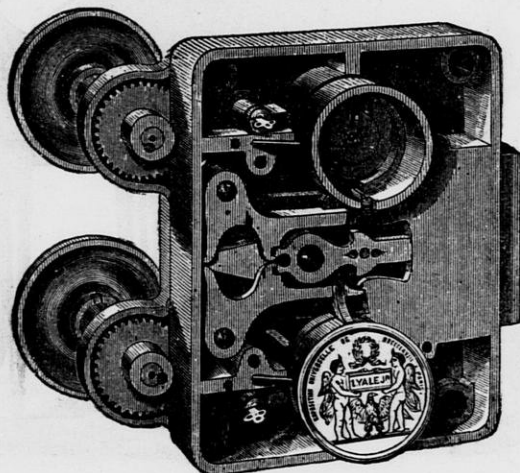
requisite holes are then drilled with the utmost exactness; the bolt is shaped in a milling machine; the plug formed, drilled and tapped; the key hole sawn in it; the "lazy arm," so-called, connecting the bolt and plug, wrought into shape; and the various parts of the lock are ready to be gauged, inspected and assembled. In the finishing room all exposed surfaces of the lock are finely polished upon emery wheels, and lacquer is applied to prevent tarnishing.

The keys, made of cold rolled English steel, imported expressly for the purpose, are punched and stamped with the company's mark, rolled and polished, when they are ready for "bitting." The most

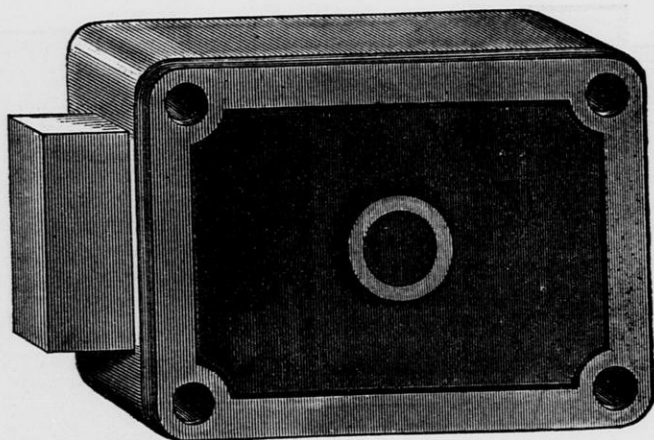


POST OFFICE LOCK BOXES.

exact record of all permutations is preserved, in order to avoid duplication of keys. The lock is then "set up," that is, the springs, pins, drivers, lazy arm, plug and key are properly adjusted, no screws being used in the combination, and the lock is completed. After a final inspection it goes to the packing room, where each lock is cleaned, wrapped in paper and packed in its separate box. These boxes are then placed in cartons



YALE DOUBLE DIAL LOCK.



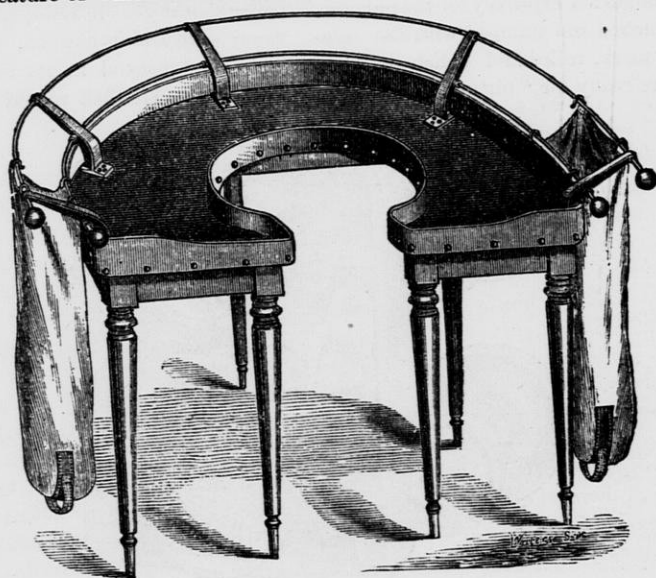
YALE DEPOSIT LOCK.

of a dozen each, and the locks are ready for shipment.

The company makes a specialty of the manufacture of

BURGLAR PROOF BANK AND SAFE LOCKS, the most important of which is that known as the Yale double dial lock, illustrated herewith, the distinctive feature of which is the double

principle, whereby one bolt, common to both, is controlled by either of two entirely independent locks, which may be set on different combinations, thus affording access to two different persons, and avoiding the danger of being "locked out," the great trouble hitherto arising from combination locks. Each dial operates a distinct four tumbler lock,



IMPROVED MAILING TABLE,

capable of 100,000,000 changes, every combination of which is available. In design materials and workmanship these locks are entirely unequaled and may safely be pronounced the most perfect locks in the world.

Another specialty of this department is the manufacture of safe deposit locks (as shown in cut below) and other fixtures for safe deposit use.

Another leading specialty is the manufacture of postoffice lock boxes, drawers, call boxes, furniture and equipments complete. The demand for this class of work has necessitated large additions to the company's manufacturing facilities.

Over fifty thousand of their lock boxes, as illustrated above, are now in use by the postoffice departments of the United States and Canada, and they supply postmasters with every requisite for the entire furnishing of offices, including lock boxes and drawers, call boxes—with metallic or wooden fronts—counters, assorting and distributing apparatus, delivery windows, letter hole plates, money order stamps, inking pads, postal indicators, postoffice books, etc. Estimates are made and designs furnished for the most economical and convenient arrangement and furnishing of offices, according to the size and extent of business. More than four hundred offices have been fitted up by this company, and the expressions of satisfaction are entirely unanimous.

Below we give cut showing their improved mailing table.

The company also make several varieties of prison locks, for cell and corridor doors, etc. The "jam lock" unquestionably affords the most perfect security of any device ever introduced for the purpose. Instead of being attached to the door, as usual, it is built into the masonry of the cell wall, the bolt projecting into the door jam, rendering any attempt to tamper with the mechanism of the lock entirely futile. The

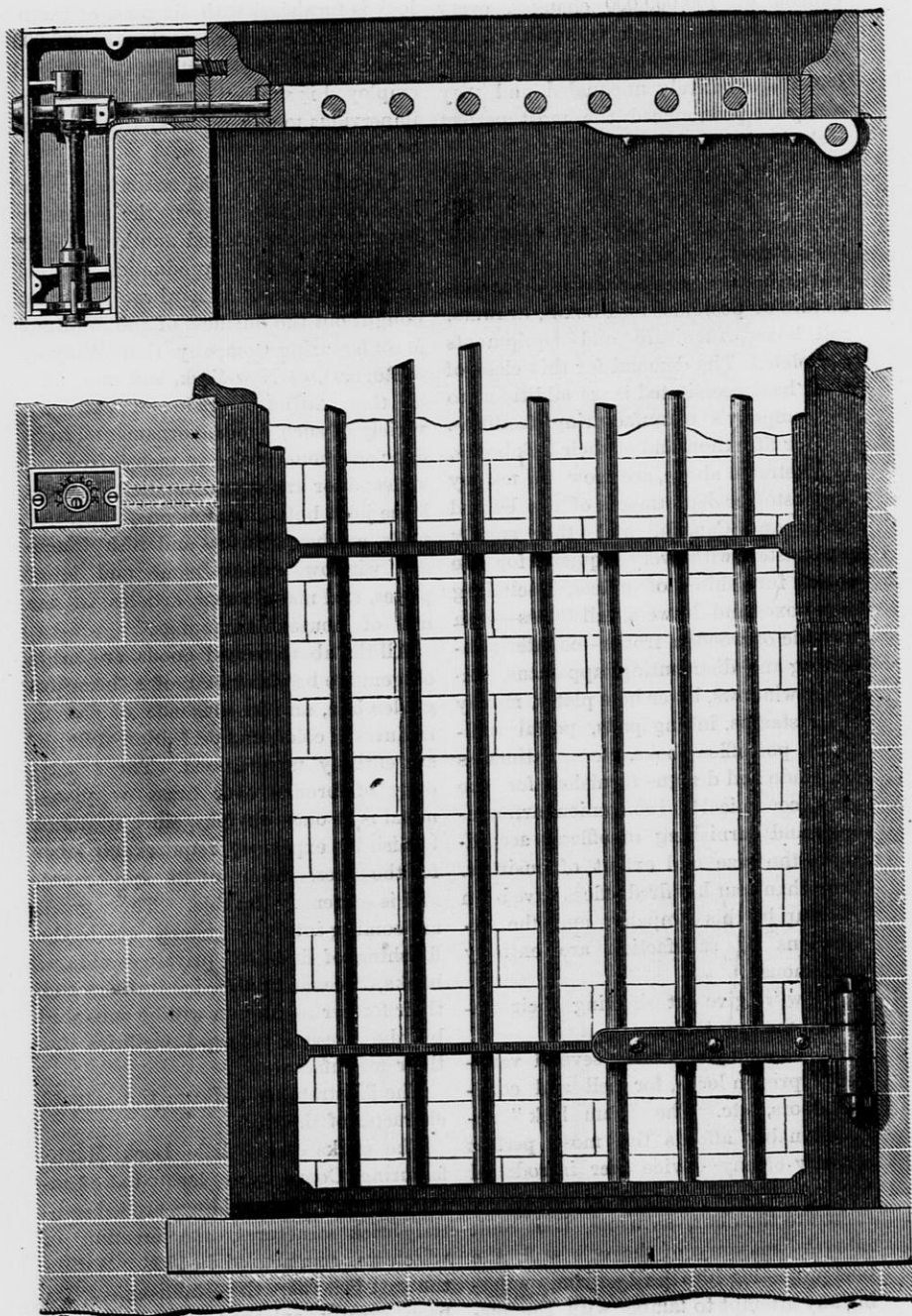
lock is furnished with six pins, or tumblers, capable of more than 1,000,000 changes, and the strength of the material employed is such as to make these locks impervious to any attacks, from within or without.

In addition to the manufacture of locks of all descriptions, the company have recently combined another department, that of the production of real bronze ornamental hardware, having bought out the business of the Whitney Manufacturing Company (late Whitney & Rogers), of New York, and now offer to the hardware trade an extensive variety of such goods as ornamental front door and house locks, in many sizes and styles; door knobs and handles, fast and loose joint butts, escutcheons, bolts, bell pulls, catches, shutters and sash fasteners, window pullies, name and letter plates, and many other articles in the line of house "trimmings."

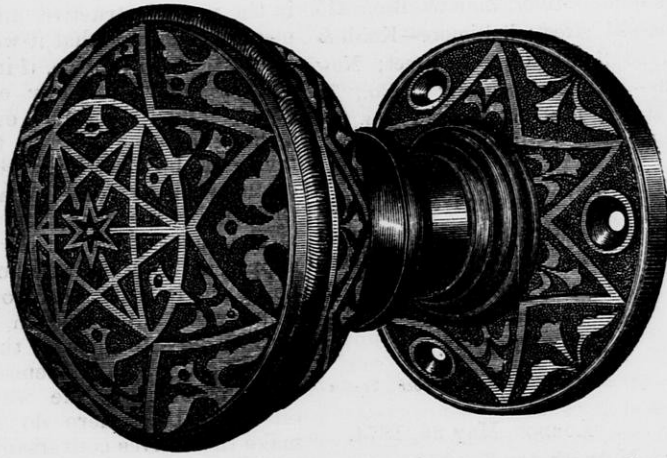
All the above named goods are made of genuine bronze metal, of a beautiful golden hue, and in elegance of design, richness of color, and perfection of finish, are entirely unsurpassed. The superiority of bronze over brass or plated metal is at once obvious, since it cannot tarnish by exposure, requires no labor for the preservation of its appearance, and is extremely durable. These goods are coming into very general use in the finishing of first class private dwellings, banks, offices and public institutions, and their former reputation will be enhanced by the present enlarged facilities for their manufacture.

The illustrations indicate the general character of the work.

The works of the Yale Lock Manufacturing Company are located at Stamford, Conn. The buildings are substantial brick structures, the erection of which was commenced in 1868. Within the past two years the establishment has been greatly enlarged, additional machinery built, the steam power increased,



YALE PRISON LOCK.



and the general manufacturing facilities fully doubled, in order to keep pace with the steadily increasing demand for their production. Both the locks and the bronze goods have become staple articles

with the hardware trade and constitute a portion of the regular stock of the principal dealers in all parts of the country. Indeed, so great has become the demand that until quite recently the company were unable to fill their orders, but their present arrangements are such as to enable them to supply the trade promptly.

The death of Mr. Linus Yale, Jr., formerly president of the company, occurred about five years ago. He was succeeded by Mr. Henry R. Towne, who has long had the direction of the manufacturing department, and now controls the entire management of the business.

Their illustrated catalogues, giving specific information regarding the various style of Yale locks, are eminently worthy of examination by the hardware trade, and will be found of interest to all who take pride in the successful development of American manufactures. All dealers not already supplied with these catalogues are advised to apply to the company for them, and the same will be forwarded without charge.

The principal office is at the works in Stamford; the New York salesroom is at No. 298 Broadway, and the company have agencies as follows:

Boston—A. T. Young, 26 Broad street;



Philadelphia—Miller, Zinn & Bro., 415 Commercial street; Baltimore—Keith & Kelso, 23 South Charles street; New Orleans—Stauffer, Macready & Co., 71 Canal street; Buffalo—Pratt & Co., 46 and 48 Terrace; Cincinnati— —; Chicago—D. S. Covert, 57 State street; St. Louis—E. C. Simmons & Co., 222 North Main street; San Francisco—James L. Barker, 412 Market street; Toronto, (Can.)—E. H. Moore, 54 Front street, E.

THE TIMBER SUPPLY.

Correspondence of the London Timber Trades Journal.

LONDON, May 26, 1874.

Sir:—Notwithstanding the question of the timber supply is one in which the people of the United States and Canada are as deeply interested as the people here can possibly be in that of the coal or iron supply, up to within a few months hardly a thought was given to the subject, and not till it was brought to the notice of the American and Canadian public in a communication which was presented to the National Board of Trade Convention which met in October last at the city of Chicago, was the matter taken into serious consideration by either press or people. That communication was written by one of the oldest timber men in Canada, and giving the statistics of supply and consumption in all the eastern, middle, and northwestern states of the American Union, it was shown that all the pine and other timber used for building purposes, would not give them a supply for over a dozen of years at the yearly increasing rate of consumption then going on. The question has, however, since that time being pretty well ventilated, as you will see from the numerous extracts herewith presented from the leading papers scattered over the United States and Canada on that subject.

The people there were going on

in the most destructive and reckless manner, wasting what it would take generations to replace, if indeed this could be effected by any effort that could be made, without ever giving a thought to the position the country would be placed in when such a calamity as the total exhaustion of their timber overtook them.

The question of the American supply, and especially that of Canada, being one in which the people of this country are interested in a degree second only to that of the Americans and Canadians themselves, it is very surprising to me why writers on the subject here do not try to make themselves conversant with the facts before rushing into print, and thus, in utter ignorance of the question, mislead the public with regard to it. The following I find in the *Standard* of this city, of the 16th ultimo., after ransacking the timber-supplying countries of Europe for timber and finding them about exhausted, it says, "We should fix our attention upon the territories of British North America, which, notwithstanding the drain upon parts of them, contain sufficient supply for the most exacting populations of the earth for centuries." Again, we get the following from the *Building News*, also of this city: "As to British North America, no one can form anything like an accurate estimate of the enormous wealth of timber, comparatively neglected, and yet so dear in our market, [query, why is it so neglected and yet so dear?] It is computed at a guess that there are about 900,000,000 acres in British North America occupied by timber trees, or more than the extent of Great Britain a dozen times over." Again, in your *Journal* of the 16th inst., we find the following in a very interesting article on the subject of timber houses by Mr. Frank C. Thicke. He says: "Till within the last few years young forests have been ready for hewing in Scandinavia when the old ones

were demolished, but the general feeling now-a-days is unfortunately towards promoting felling in order to keep pace with the increasing demand for exportation, but still I do not think that there is any great reason for anxiety and alarm, for even if this improvident deforestation is allowed we can but resort to the American markets for our supply of timber." And lastly, we have a writer over the name of "Lignum Vitæ" in the same issue of the *Journal*, who, in concluding his remarks on the supply in Sweden (and whose communication I will farther notice by and by), asks the question, "if a corner of Europe will give us the annual supply without diminishing the capital stock, what rate of consumption the mighty and interminable forests of America will endure from age to age without the likelihood of appreciable diminution."

It is, sir, quite incomprehensible to me that such utter ignorance as the foregoing extracts exhibit should at this day be entertained regarding the supply of timber in Canada and the United States, which are but some eight or nine days steaming from your shores, and from which you have for so many years drawn such a large proportion, and I might say the only description of building timber fit to be called such in your markets.

The United States, north and south, this side of the Rocky Mountains, have not as much building timber, which may be comprehended in the material of pine, hemlock, and spruce, as will last them a dozen of years at the present yearly increasing rate of consumption; and I will venture to assert, without fear of successful contradiction, that instead of Canada having "a supply for the most exacting populations for centuries," she has not as much of those descriptions of timber this side of the Pacific slope as would supply the present consumption of

the United States alone for the short period of three years, if called on to do so. The oak, ash, white-wood, and walnut Canada is now stripped of, and two or three years at the farthest will see an end of her elm; and as she will for the future be called on to supply to a greater extent than heretofore the yearly increasing waste and wants of the United States, and this more especially if reciprocity is effected between the two countries, I am as confident as it is possible to be on any question of the future, that not a foot of her timber will reach this market in a decade from now; and I am just as sure that in less time the United States will be competing with you in whatever other markets you may be drawing your supplies from. Notwithstanding their "mighty and interminable forests" which "Lignum Vitæ" assures us they have, and the nine hundred millions of acres which the *Building News* says Canada has lying alongside of them, alarmed at the denudation of their forests, the Congress of the United States are now legislating on the question of the preservation of their nearly exhausted resources, and giving bonuses for timber-planting; and they are also entertaining the question of reciprocity with Canada, a question they would not think of for a moment did they not see the necessity of preserving the timber now left as long as possible by supplementing it by drafts on Canada.

I should, sir, judge, from the remarks of the gentleman who gives himself the heavy wood name of "Lignum Vitæ," that he could not have very carefully read the communication on the timber supply published in a preceeding number of your *Journal* he so furiously criticises. The very first paragraph commences with, "I find in conversing with the timber merchants of Liverpool, Glasgow, and this city, on the subject of timber," &c. Again, he says your correspondent has paraded

before us on the consuming side very large figures, which seem capable of considerable modification; but he forbears to enter into calculations on the side of supply which would render the others perfectly insignificant. Here your correspondent's critic asserts in the most positive manner what he cannot prove, and, in fact, what he knows nothing about, and complains that the man he criticises forbears to enter into the sources of supply, while he has gone over every state and territory of the Union, pointing out those that are about exhausted, those that have timber on them, where it is, and about how much they have, and those that are prairie and treeless states. This, one would think, should be quite satisfactory as regards the supply; but as your correspondent has long since returned home to New York, and is not here to give further information on the subject, I will, with your permission, supply his place in this respect by giving the quantities estimated at the highest figures in the different states and territories, leaving out those on the Pacific side, which have not more than will be necessary for their own wants, the whole being estimated at under seventy thousand millions of feet; but even should they have any to spare, it would be cheaper for the other states to get their supplies from the 180,000 square miles which "Lignum Vitæ" says they have in a corner of Europe, than by Cape Horn or their own Pacific railways.

Michigan, yellow pine.....	50,000,000,000
Wisconsin, " ".....	20,000,000,000
Minnesota, " ".....	16,000,000,000
Pennsylvania, pine and hemlock.....	5,000,000,000
W. Virginia, yellow pine.....	7,000,000,000
E. Virginia, pitch pine.....	150,000,000
Maine, chiefly spruce.....	10,000,000,000
New York, pine.....	900,000,000
Alabama, pitch pine.....	1,500,000,000
Florida, " ".....	1,700,000,000
N. Carolina, pine.....	1,600,000,000
S. Carolina, " ".....	900,000,000
Georgia, " ".....	1,500,000,000

Making altogether, feet.....115,440,000,000

but which reduced to loads will give 192,400,000; and if "Lignum Vitæ"

will take the trouble of dividing that product by sixteen millions of loads—the yearly consumption of pine alone—he will see that a fraction over twelve years will use up all the pine and spruce, pitch and yellow, north and south, this side of the Rocky mountains, without adding a foot for the yearly increasing consumption, which will very materially reduce the time of total exhaustion; and should he be curious to learn how the foregoing statistics were arrived at, I will tell him. When the communication to the National Board of Trade Convention above mentioned was made public, it was seen by those lumber-supplying states, and particularly in the west, that it would be necessary to take steps to counteract its effects, or the people would be clamoring for the admission of lumber from Canada free of duty, and an investigation of the supply in the several timber producing states was at once set on foot; and if not with an endeavor to make the aggregate as large as possible, it was certainly not intended to make it less than it was; but all their efforts in this direction only served to show that the Canadian's lumberman's figures of supply could not be gainsayed, and the congressional returns of consumption show he was rather under than over the actual yearly requirements, and, now that we have the question of reciprocity under consideration, what under other circumstances would not be for a moment entertained. "Lignum Vitæ" informs us that he knows of a hundred thousand acres of well-timbered lands on the St. Lawrence which can be purchased for 7s. 6d. per acre. If he knows this, he knows what no one in Canada does; and I will assure him, that instead of 7s. 6d. per acre, if the fortunate party will only hold on to it, and it has but ten good pine trees instead of "three hundred" to the acre, and if within reasonable distance of water to float it to the St. Lawrence, it will bring him from one

hundred to five hundred dollars per acre in less than a half-dozen years from now. Good pine timber will now bring from one hundred to three hundred dollars per acre in western Canada if anywhere on the frontier; in the old settlements, I have known as high as three hundred and fifty dollars an acre paid for pine trees; but what is called well timbered land in Canada is not composed of pit props and other such stuff, as I have seen here from the north of Europe.

"*Lignum Vitæ*" says your correspondent proves too much for the theory he desires to set up, and asks "If the United States already consume annually more than double as much timber as the mercantile navies of Europe and America could carry, and as only a small portion of those ships is employed in the lumber trade, how is that vast quantity brought into use?" and then answers his own question as your correspondent would have answered it, that the bulk of it is used where it is cut down. But what has all this to do with what your correspondent said on the subject? He simply stated that the present annual consumption, computed at 30,000,000 of loads, is more than double all the tonnage of Europe and America combined; and if this proves too much or too little, or anything beyond giving an idea of the rate of consumption, I am at a loss to conceive. One thing, however, it has proved, and that is that your correspondent's critic, as I said before, could not have read very carefully the letter he criticises, or he would not have kept on blundering in this way about it.

I will leave the gentleman to settle the question of the "Trojan war" the "battle of Salamis," and the supply in the "northern corner of Sweden," with Mr. Thicke, who has but recently returned from there under such discouragement as to force him not only to look towards America, but all the way to India and Japan as sources of supply.

To conclude, sir, the question of the timber supply is one of vast importance both to the people of this country and Canada, and if discussed at all it should be not by "guess" work and reckless assertions, but deliberately, honestly and dispassionately, with a view to eliciting the facts, and without such bitterness as is manifested by the gentleman I have taken the trouble to notice, and who, as far as I can see, has been given no reason for the exhibition of the bad temper his attempted criticism of your correspondent's communication presents.

Yours very obediently,

A CANADIAN.

P. S.—Northern Sweden must be a most extraordinary section of the timber world, for we are informed by "*Lignum Vitæ*" it contains 180,000 square miles, while the whole of Sweden claims but 176,000 east, west, north and south. The northern portion, then, it may be calculated, will amount to one quarter the area of the kingdom, which would be 44,000 square miles, and as he "rejects half the territory as rivers, lakes, rocks; cultivated valleys and inaccessible places;" in his calculations, we have then 22,000 square miles or 14,080,000 acres of timber. The United States Department of Agriculture estimate the consumption of timber during the present decade, at one hundred millions of acres, or an average of ten millions of acres per year, which "*Lignum Vitæ*" will see would use up all the scaffolding poles of 300 to the acre that corner of Europe possesses in less than a year and a half. It is said besides that thirty years will strip the United States of every description of timber—firewood, pit props, railway sleepers, scaffold poles, hop poles, bean poles, in fact leave them without a faggot from the Pacific to the Atlantic seaboard.

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

LUMBER IN MISSISSIPPI.

Mississippi, pre-eminently an agricultural state, bids fair to yet rival Maine or Michigan as a lumber centre. There is no limit to the demand for lumber from abroad; there is no limit to our supply. All southern Mississippi, and extending far back into the interior, is one vast unbroken pine forest, whose wealth of timber has yet been scarcely tapped. Your correspondent has lately traveled the counties along the seacoast, which form a part of what is now generally spoken of as "The Great Lumber Region of Mississippi," with the special purpose of noting the increase in this industry, the facilities for shipping, etc. When I say that three thousand miles of river, navigable for rafts, wind through this "great lumber region," some idea may be formed of its vast extent. At this place, the Pascagoula river debouches into the gulf; or, more properly, into the Mississippi sound. The Pascagoula and its tributaries, all navigable for rafts, drain all that section of country, from the Mobile and the Tombigbee on the east, and from near the Pearl on the west and as far north as a county or two south of the Vicksburg and Meridian railroad. The Pearl river, emptying into the sound near Bay St. Louis, drains Harrison, Pearl, Lawrence, Pike and two or three other counties; and the Jordan and Wolf rivers, emptying into Bay St. Louis, extend for more than one hundred miles into the interior.

At Moss Point, some six miles above this, at the junction of the Dog river with the Pascagoula, there are now in operation eighteen large saw mills; three or four below the point, and a few smaller ones higher up. From these mills the lumber is transported to the ships in the harbor upon schooners, which generally carry about 40,000 feet each trip. The average capacity of the exporting vessels is about 200,000 feet, or say

of 200 tons, though some are as large as 450 tons. The Pascagoula harbor is considered the best on the coast. It is protected by Horn island, which lies off shore eight miles. Just inside of the island, vessels can load to the depth of eighteen feet, while vessels drawing less than sixteen feet can load within two miles of the shore. There are now several foreign vessels in port, loading for England and the continent.

To show the growth of the lumber business within the past year: I find that from this district (which includes both the ports of Shieldsboro and Pascagoula) that in January of this year there were 30 vessels cleared, 18 for foreign ports—West Indies, Mexico, South America, England, Belgium, etc., and 12 for coastwise ports—New York, Philadelphia, etc. These vessels had a total tonnage of 7,945 tons, and carried from our shores 5,536,569 feet of lumber. In February, March and April, there was cleared an average of 24 vessels each month. The lumber sells at the mills at an average of \$15 per M.

To still further give you an idea of what it will be in the future, I will copy from my notes some recent sales of lands in the lumber region. Mr. C. H. Shepherd, of Lansing, Michigan, has purchased 40,000 acres in Hancock and Pearl counties, and located on the Pearl and Jordan rivers. Mr. J. D. Norton and Mr. T. A. Flowers, of Pontiac, Mich., something over 40,000 acres, located on Black creek, a tributary to the Pascagoula. Some of these lands are in Lawrence and Copiah counties, on the Pearl; but mostly in Marion county, on Black creek. Mr. T. Hall, of Ann Arbor, Michigan, has purchased about 30,000 acres on the Pearl, the Jordan and the Pascagoula. Mr. S. M. Wilcox, one of the heaviest land owners in Michigan, has bought 12,000 acres on Pearl river, in Marion county. These lands have mostly been sold by Mr. S. M. Baldwin, of Chicago, who has spent the last two

years in Mississippi, purchasing and selling lands. He tells me that he has sold about 175,000 acres during that time. Mr. Baldwin purchased 122,000 acres from the famous Pearl River Navigation and Improvement company and the rest from private parties. Messrs. Shepherd and Norton will immediately put their mills in operation.

Mr. Shepherd has another project on hand, of which you may have heard. He wishes to build a mill on Ship Island, where the largest vessels can be loaded directly from the mills, and thus save the expense of lighterage. His timber will be floated to him in rafts. Ship Island, you know, is property reserved to the government, and Mr. Shepherd is now in Washington seeking the necessary authority to locate his mills on the Island. For the benefit of western men, I must not neglect to mention some important facts in reference to this lumber region. The most of the timber is the large leaf yellow pine, the most valuable product of the forest the world over, and which is here found in greatest perfection, and in exhaustless abundance. These pine trees reach an altitude in many instances of more than 100 feet without a crook or limb.

Another thing of importance; the forest fires never injury the timber as they do in Michigan and Maine; there is no undergrowth, and no "swamping" necessary. The soil is a coarse sand, or gravel, and no ruts are made by the wagons in hauling. The land is rolling, high and dry. On Pearl river, cypress is also plentiful; and there are numerous openings not only for sawmills, but for shingle-machines, factories for making buckets, tubs, sash and blinds, chairs and furniture. There are about twelve sawmills on Pearl river, the largest ones owned by Mr. Poitevant; six on Wolf river and five on Jordan; about twenty on the Pascagoula, and several other smaller streams, and the number is

growing constantly.

I should have mentioned, also, that there are two shipyards at Pascagoula. I saw a beautiful \$28,000 schooner, just completed for a Mexican trader, lying gracefully out a few miles from shore. Both these yards have as much business as they can do. At Moss Point, there is also a foundry, and quite a large one. Different from other sections of Mississippi, there are few lands for sale in the coast counties, though any quantities lie further back, and accessible, as I have stated, to the seacoast by the numerous inland streams. Mr. Baldwin informed me that his sales had been made at from \$1.25 to \$3.50 an acre. I hear of numerous tracts for sale, where the lumber would have to be hauled not more than from one to three miles, which can be bought at from \$1 to \$5 an acre, according to location. There are also, large tracts of land, which actual settlers can take up under the homestead act—160 acres, if I am not mistaken, to each head of a family. The land is generally, however, too poor for agricultural purposes, though for stock raising, it is excellently adapted.—*Correspondence of the Vicksburg Herald.*

At East Boston, Mass., there has been built by N. Gibson, as an experiment, a three masted schooner without frame. The vessel is 138 feet long, 32½ feet beam, and 12 feet two inches depth of hold. Long, sharp, large capacity and buoyancy. The vessel is composed of square logs of spruce, one foot square, placed one upon the other, and secured together by iron bolts, three feet long and placed twelve inches apart. The owner expects that this vessel will prove to be stronger, more capacious, and faster than vessels of the ordinary construction. In timber there is a saving of forty per cent.

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

THE BIGGEST SAWING EVER DONE IN THE WORLD.

From the Bay City, Mich., Tribune.

The mammoth lumber manufactory of John McGraw & Co., in the Seventh ward of this city, is famous the world over. It is one of the finest mills in the world, as well as one of the largest. Its cutting capacity has been considered to be about 175,000 feet per day, but on yesterday more than that amount was cut in less than three hours. The occasion was a special test of the mill, with all the saws put to their greatest speed for three hours. Mr. McGraw made arrangements for the test some time since, but to avoid the rush which would inevitably have occurred had a public announcement been made of the fact, the matter was kept rather quiet. There was a large number of people present, however, yesterday afternoon, and at two o'clock precisely the

MACHINERY WAS STARTED.

At five a stop was made, and it was ascertained that the mill had cut the unprecedented amount of *one hundred and seventy-nine thousand, seven hundred and eighteen feet*. Twenty minutes was lost during the three hours, which would make the actual running time but two hours and forty minutes. The amount cut, named above, was by the *log scale*. By the *lumber scale* it would be considerable more, and Mr. McGraw is confident that the lumber will measure two hundred thousand feet. An idea of the extent of the cut may be formed, when we state there is but one other mill on the river which can cut such an amount in an entire day. It is the biggest work ever known, and entitles the mammoth mill of Bay City to the

CHAMPIONSHIP OF THE WORLD.

The cut by hours was as follows:

	Feet.
First hour.....	62,707
Second hour.....	56,545
Third hour.....	60,466
Total.....	179,718

The cut by saws during the three hours, was as follows:

	Feet.
Live gang.....	42,986
No. 1 circular.....	48,542
No. 2 circular.....	80,255
Slabbing and flat gang.....	57,935
Total.....	179,718

AVERAGE TIME.

The time taken to cut a log was taken, and it was ascertained that logs averaging 600 feet were passed through the live gang in an average time of two minutes each. Logs of the same size were passed through the flat gang in one and a half minutes on the average.

REVOLUTIONS.

The revolutions of the saws were also taken. The No. 2 circular made 550 revolutions per minute, with a feed of six and a half inches; No. 1 circular 600 revolutions per minute. The No. 1 circular slabbed for the flat gang, and the No. 2 circular sawed complete. There are two circulars and two gangs in the mill.

AN ARMY OF TEAMS.

Running twelve hours per day the mill would cut, at the rate at which it slashed out lumber yesterday, 720,000 feet in twelve hours. This would load two ordinary vessels, and if loaded on double wagons, 720 would be required to transport the day's cut, thereby forming a procession of teams and wagons *four and one-half miles in length*.

THE LARGEST ON RECORD.

The biggest sawing on record previous to yesterday, was 400,000 feet in twelve hours. McGraw's mill beat the ratio of that work per hour by about 50 per cent.

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.

CLASSIFICATION OF WOOD.

From the Boston Lumber Trade.

EXAMPLES OF PINE-WOOD.—The following are a few examples of timber of this class:

I. Pine timber is the wood of various species of the genus *Pinus*, the best being that of the Red Pine, or Scottish Fir (*Pinus sylvestris*), grown in the north of Europe. This wood is stiff, strong, and straight-grained, and well suited for large framing.

Pine timber is also obtained from various other species, chiefly North American, of which the best are the Yellow Pine (*Pinus variabilis*) and White Pine (*Pinus Strobus*). It is softer and less durable than the Red Pine of the north of Europe, but lighter and can be had in larger logs.

Timber similar in its properties to the best kind of pine is produced by the Kauri or Cowrie of New Zealand (*Dammara Australis*).

II. White Fir, or Deal timber of the best kind, is the wood of the Spruce Fir (*Abies excelsa*), grown in the north of Europe.

This is an excellent kind of timber for light framing and joiners' work, and is specially well suited for making patterns of machinery.

Among other kinds of spruce fir applied to the same purposes are the North American White Spruce (*Abies alba*), and Black Spruce (*Abies nigra*).

EXAMPLES OF LEAF-WOOD WITH LARGE RAYS.—I. Oak timber belongs to the first subdivision of Tredgold's system. It is the strongest, toughest, and most lasting of those grown in temperate climates, and is well suited for framing in which strength, toughness, and durability are required; but it has in general the defect, which is a serious one as regards machinery, of being subject to warp. It is obtained from various species or varieties of the botanical genus *Quercus*.

The wood of the oak contains gal-

lic acid, which contributes to the durability of the timber, but corrodes iron. Metal fastenings for oak should therefore be of copper, or its alloys; or, if of iron, they should be well coated with zinc.

The following are examples of trees belonging to Tredgold's second subdivision:

II. Beech (*Fagus sylvatica*), common in Europe.

III. American Plane (*Platanus occidentalis*), common in North America.

IV. Sycamore (*Acer pseudo-platanus*), also called Great Maple, and in Scotland and the north of England, Plane; common in Western Europe.

All these afford compact wood of uniform texture. They are valuable for blocks which have to resist a crushing force. They last well when constantly wet (especially beech), but when alternately wet and dry they decay rapidly.

EXAMPLES OF LEAF-WOOD WITHOUT LARGE RAYS.—The examples of timber in this Article belong to the first subdivision of the second division according to Tredgold's system, having no large distinct medullary rays, and having the divisions between the annual rings distinctly marked by a more porous structure. They are in general strong, but flexible; and therefore, in machinery, they are suitable for pieces in which the power of bearing shocks is of more importance than rigidity.

I. The Ash (*Fraxinus excelsior*) furnishes timber whose toughness and flexibility render it superior to that of all other European trees for making handles of tools, shafts of carriages, spokes of wooden wheels, and the like; but which is not sufficiently stiff and durable to be used in framing.

II. The common Elm (*Ulmus campestris*) and smooth-leaved Elm (*Ulmus glabra*) yield timber which is very durable when constantly wet, but not when alternately wet and

dry. Its strength across the grain, and its resistance to crushing, are comparatively great; and these properties render it useful for some parts of mechanism, such as cogs of wheels and shells of ships' blocks. There are other European species of elm, such as the Wych Elm (*Ulmus montana*); but their timber is inferior to that of the two species named.

A North American species, the Rock Elm, is said to be not only durable under water, but straight-grained and tough, so as to be well suited for framing.

EXAMPLES OF LEAF-WOOD WITHOUT LARGE RAYS CONTINUED.—The kinds of timber mentioned in this Article are examples of the second subdivision of Tredgold's second division, having no large distinct medullary rays, and no distinct difference of compactness in the rings. This uniformity of structure is accompanied by comparative freedom from warping; and hence this subdivision contains various sorts of wood which are specially well adapted both for framing and for moving pieces in machinery, where accuracy and constancy of form are required.

I. Mahogany (*Swietenia Mahagoni*) is produced in Central America and the West India Islands—that of the former region being commonly known as "Bay Mahogany;" that of the latter, as "Spanish Mahogany." When of good quality, it is very straight-grained, very strong in all directions (though easily split along the grain), very durable, and preserves its shape under varying circumstances as to heat and moisture, better than any other kind of timber which can be procured in equal abundance. Mahogany varies much in quality; bay mahogany being in general superior to Spanish mahogany in strength, stiffness, and durability, and in the size of the logs, which are from 24 to 28 inches square. Bay mahogany of good quality is probably the best of all

timber for the framing of machinery. Spanish mahogany is the more highly valued for ornamental purposes. Spanish mahogany is distinguished by having a white chalky substance in its pores, those of bay mahogany being empty.

II. Lignum-vitæ (*Guaiacum officinale*) is produced in the West India Islands. It is remarkable for heaviness, compactness, toughness, and hardness, and for the property of resisting a crushing force with nearly equal strength across and along the grain—a property which makes it specially useful for rollers, sheaves, and other moving pieces in mechanism. In converting logs into sheaves, the direction of the fibre of the timber is parallel to the axis of the sheave. The heart-wood is yellowish-green, the sap-wood greenish-yellow; and it is considered advisable, in cutting it into pieces suitable for sheaves, to leave a ring of sap-wood all around the heart-wood, which is thus protected against too rapid drying, and prevented from splitting.

Properties similar to those of Lignum-vitæ are possessed by box-wood (*Buxus sempervirens*), Ebony (*Brya ebenus*, and other genera and species), Ironwood (*Mesua Nagaha*), and various other woods, chiefly tropical.

The subdivision embraces various kinds of timber grown in tropical climates, which are highly valued for shipbuilding purposes, and which would be suitable also for the framing of machines—such as the Teak (*Tectona grandis*) and Saul (*Shorea robusta*) of India, and the Greenheart (*Nectandra Rodiei*), Mora (*Mora excelsa*), and Sabicu (*Acacia proxima*) of South America and the West Indies.

SEASONING.—Seasoning timber consist in expelling, as far as possible, the moisture which is contained in its pores.

Natural Seasoning is performed simply by exposing the timber freely to the air in a dry place, sheltered,

if possible, from sunshine and high winds. The seasoning yard should be paved and well drained, and timber supported on stone or cast-iron bearers, and piled so as to admit of the free circulation of air over all the surfaces of the pieces.

Natural seasoning to fit timber for carpenters' work usually occupies about two years; for joiners' work and machinery, about four years; but much longer periods are sometimes employed.

To steep timber in water for a fortnight after felling it, extracts parts of the sap, and makes the drying process more rapid.

Artificial Seasoning consist in drying the timber in an oven by means of a current of hot air. It occupies from seven or nine days for each inch of the thickness of the piece of timber.

In the course of drying, timber loses weight and shrinks in its transverse dimensions. The loss of weight ranges in different examples from 6 per cent. to 40 per cent.; and the transverse shrinking from 2 per cent. to 8 per cent., the most common rate being 3 per cent. The sorts of wood which shrink most in drying are the most subject to warp.

DURABILITY, DECAY, AND PRESERVATION OF WOOD.—All kinds of timber are most lasting when kept constantly dry, and at the same time freely ventilated.

Timber kept constantly wet is softened and weakened; but it does not necessarily decay. Various kinds of timber, some of which have been already mentioned, such as greenheart, elm and beech, possess great durability in that condition.

The situation which is least favorable to the duration of timber is that of alternate wetness and dryness, or of a slight degree of moisture, especially if accompanied by heat and confined air.

Timber exposed to confined air alone, without the presence of any considerable quantity of moisture,

decays by "*dry rot*," which is accompanied by the growth of a fungus, and finally converts the wood into a fine powder.

Amongst the most efficient means of preserving wood, are good seasoning and the free circulation of air.

Protection against moisture is afforded by oil paint, provided that the timber is perfectly dry when first painted, and that the paint is renewed from time to time. A coating of pitch or tar may be used for the same purpose.

Protection against the dry rot may be obtained by saturating the timber with solutions of metallic salts, such as sulphate of iron, sulphate of copper, bichloride of mercury, and chloride of zinc.

Timber is protected against wet rot, dry rot, and white ants, by saturation with the liquid called commercially "*creosote*," which is a kind of pitch oil.

STRENGTH OF TIMBER.—Amongst different specimens of timber of the same species, those which are most dense in the dry state are in general also the strongest.

Tables of the results of experiments on the strength of different kinds of timber, strained in various ways, will be given hereafter.

The following are some general remarks as to the different ways in which the strength of timber is exerted:

I. The *Tenacity along the grain*, depending, as it does, on the tenacity of the fibres of the vascular tissue, is on the whole greatest in those kinds and pieces of wood in which those fibres are straightest and most distinctly marked. It is not materially affected by temporary wetness of the timber, but is diminished by long-continued saturation with water, and by steaming and boiling.

The *Tenacity across the grain*, depending chiefly on the lateral adhesion of the fibres, is always considerably less than the tenacity along the

grain, and is diminished by wetness and increased by dryness. Very few exact experiments have been made upon it. Its smallness in pine-wood, as compared with leaf-wood, forms a marked distinction between those two classes of timber, the proportion which it bears to the tenacity along the grain having been found to be, by some experiments—

In pine-wood, from 1-20th to 1-10th.

In leaf-wood, from 1-6th to 1-4th and upwards.

II. The *Resistance to Shearing*, by sliding of the fibres on each other, is the same, or nearly the same, with the tenacity across the grain.

III. The *Resistance to Crushing* along the grain, depending, as it does, on the resistance of the fibres to being crippled, or "upset," and split asunder, is greatest when their lateral adhesion is greatest, and was found by Mr. Hodgkinson to be nearly twice as great for dry timber as for the same timber in the green state. In most kinds of timber, when dry, it ranges from one-half to two-thirds of the tenacity.

Experiments have been made on the crushing of timber across the grain, which takes place by a sort of shearing; but they have not led to any precise result, except that timber in general is both more compressible and weaker against a transverse than against a longitudinal pressure; and, consequently, that intense transverse compression of pieces of timber ought to be avoided. Certain special kinds of timber are valued for the property of resisting compression across the grain well. Of these the most generally used is *lignum-vitæ*.

USE OF WOOD IN MACHINERY.—The following statement as to the more ordinary kinds of wood, according to the purposes in machinery to which they are applicable, is principally based on a similar table given by Holtzapffel in his treatise on *Mechanical Manipulation*.

FOR FRAMEWORK — Mahogany is strong, stiff, durable, and free from warping. Pine and deal are strong longitudinally, stiff, and straight-grained. Oak, teak, and saul, are strong, tough and durable. Ash is tough and pliable. Elm (durable when wet), and beech are strong against pressure.

FOR LEVERS AND CONNECTING-RODS—Pine, deal, and mahogany are strong and stiff. Oak and teak are strong and tough. Ash, hazel, hickory, and lancewood, are tough and pliable.

Lignum-vitæ, box, and mahogany are used for pulleys, sheaves, rollers. Box, beech, holly, *lignum-vitæ*, and elm, are used for bearings for shafts. When wood is used for bearings, the ends of the fibres should be exposed to the pressure. Crabtree, hornbeam, locust, and beech, are used for cogs. Deal, mahogany, pine, and alder, are used for patterns.

In machinery whose speed is liable to be suddenly changed or checked, it is often useful to make some of the parts, which transmit the motion, of wood, although the whole of the remainder may be of iron; the object being that the wood, by yielding to a shock, may prevent it from damaging the iron; and also that in the event of breakage occurring, it may take place in the wooden parts, which can be replaced more easily and at a less cost than the iron parts.

For example, the great spur fly-wheel, by means of which a steam engine or a water-wheel drives the machinery of a mill, is very generally a *mortis-wheel*; that is to say, a cast-iron wheel with rectangular sockets called *mortises* in its rim, into which are fitted wooden teeth called cogs. The pinion which those teeth drive is wholly of cast-iron. Wooden cogs are made double the thickness of cast-iron teeth that have to bear the same pressure.

Another instance of the application of the same principle is when, in a steam engine that drives an iron rolling mill, the middle part of the

thickness of the connection-rod, which transmits thrust, is made of wood, the tension being transmitted by means of a wrought-iron strap.

THE INVENTOR OF THE CIRCULAR SAW.

Correspondence of the Chicago Post and Mail.

Not long since an article appeared in your paper, giving credit for the invention of circular saws to some man in Vermont, and the writer suggests the idea of erecting a monument to his memory, and in response to the same I have taken the liberty to send you the following :

In a lonely, secluded position in the northwest corner of the cemetery near the ever beautiful little village of Richmond, Kalamazoo county, Michigan, the historian can find, on a pure white marble slab, nearly concealed from view by a large cluster of lilac bushes, engraved the simple name of "Benjamin Cummins, born A. D. 1772, died A. D. 1848." And who was Benjamin Cummins? He was the inventor of circular saws now in use in this country and in Europe. Nearly sixty years ago, at Burtonville, N. Y., near Amsterdam, this man hammered out, at his own blacksmith's anvil, the first circular saw known to mankind. He was a noted pioneer in Michigan, a first cousin to one of the presidents of the United States, a slave owner in New York state, a leading mason in the days of Morgan, and at whose table the very elite of the then great state of New York feasted and drank freely of his choice liquors and wines. A vessel owner on the North river before the days of steamboats, a captain in the war of 1812, where, after having three horses shot from under him, with one stroke of his sword he brought his superior officer to the ground for an insult, and because he was a traitor and a coward, and after having been court-martialed, instead of having been shot he was appointed a colonel in his place. And in this lowly grave are the ashes of the man

who, nearly seventy years ago, at Albany, New York, took up and moved bodily a large block of brick buildings, and to the then wonder and astonishment of the world, constructed a mile and a half of the Erie canal through a bed of rock, and who also built, per contract, those first low bridges over the same. He also aided in the construction of the first ten miles of railroad built in the United States, and founded both the villages of Esperence and Burtonville, on the old Schoharie, near Amsterdam. Now, therefore, if any one should feel inclined to erect a monument to the inventor of the circular saw they will know exactly where to erect it, and it would not be in Vermont either. The study and aim of this man's life appeared to be to accomplish that which no others could accomplish—and when the object sought was secured, or overcome, he passed it as quietly by as he would the pebbles on the sea shore. He was twice married, and the father of twenty-two children; the last wife is still surviving him, and his posterity are scattered over the entire northwest, he having emigrated to Michigan in 1831, when the state was a wilderness; therefore his life was not a failure.

Pine lumber is now not over plentiful in Western New Brunswick, but in the east and on the North Shore it exists in unlimited quantity. Our informant, who said that fifty million feet of pine lumber could be got out annually from the small harbors of the north, writes us to say that he might as well have said one hundred million or one hundred and fifty million feet, for the supply of lumber available is practically inexhaustible. Yet the want of the Baie Verte canal prevents the resources of this vast and productive region from being made available and Canada is the loser.—*St. John Telegraph.*

STANDARD LUMBER.

From the Boston Lumber Trade.

There is no complaint more general—we might with propriety, perhaps, well say universal—among manufacturers of lumber than in reference to inspection or survey. Their merchandise is rated, they say, too low and the returns to them are, consequently, not what they might fairly expect and claim. We are not prepared to say that there is not in many cases too much ground for this complaint. In this locality, it is claimed by those who ought to know, that, under the operation of the Massachusetts law and its administration in this district, the inspection bears more heavily on the interest of the manufacturers than is true of the inspection in any other district or point of manufacture or sale throughout the country. Wherever there are interests so conflicting, as exist in this case, there will of necessity occur difference of opinion and often dissatisfaction for which there is really no occasion. In this connection, it may be proper to say that the disappointment of the manufacturer may arise from his own methods of manufacture, resulting both in lower ratings and a less salable quality than should have been secured from timber, of such size and quality before it was sawed. By want of proper adjustment, or of sufficient skill and attention on the part of the operator, there will be frequently a variation of an eighth of an inch in thickness from that called for by the schedule, so that either it will not plane up to the standard thickness called for, or will necessitate waste or extra labor in working it down. It not unfrequently even occurs that the same piece of board will vary in thickness, by nearly or quite an eighth of an inch between the two ends. There are other respects, also, in which a careless method of manufacture may very much depreciate the value of lumber. To use the expression of a

prominent operator, “there is a science in the manufacture of lumber” as truly as in that of many articles less bulky and of much finer texture. This science, as he assured us, was thoroughly understood by the lumbermen of one locality, partially so by that of another, and quite ignored by that of a third. Another large commission merchant stated to us that, within a few years, the style of manufacture of a whole region had been so modified and improved that, while previously the lumber had stood very low in the estimation of purchasers and could hardly be sold at all, it now stood well, and that this marked, and to the manufacturers very profitable improvement, had been secured by the directing their attention particularly to “style,” he, with the operator previously quoted, averring that the term “style” is applicable to this as to many other kinds of manufacture to which the term might seem more appropriate.

Another matter, somewhat kindred to that just referred to, is the special want of a particular market. For example the demands of the New York and of the Boston market are not the same, and what would be adapted to one and would sell readily, in an ordinary season in one, would in a corresponding season, find no demand in the other. The manufacturer should, of course, be acquainted with the special demand of each, and prepared to adapt the quality and style of his production to the wants of the locality in which he seeks a market.

Our conclusion from the above is that, while it is for the interest of manufacturers of lumber to seek by concerted action for the necessary modification of the inspection laws of the various states as soon as this may be secured, and such checks on the administrations of the laws as may be needed, they should individually bring the quality of their production to the highest standard of which the material on which they work is capa-

ble. For this, as we have illustrated in another article on this page, they will find that it is their true interest to employ the most skillful men attainable, and the highest wages will be a judicious investment. It should be their aim to thoroughly train workmen, from boys up, in the most careful and thorough habits so as to supply the want which must exist, if the policy of first-class workmanship is to be everywhere adopted.

We have only one more suggestion to make on this general subject of the standard of lumber. It seems to us that one single check on the administration of inspection laws, in the hands of surveyors, may properly be demanded. It is this, that at the same time that the number of feet in a plank or other piece of lumber is marked upon it, a figure, letter or other device, indicating the grade or quality, should also be marked upon it. The result would be that the dealer would not be able, under an inspection, paid for and possibly influenced by himself, to purchase lumber as refuse and to sell it as merchantable. This would, in a measure, remove the temptation to undue influence in the inspection to the detriment of the manufacturer. An illustration of the present possibility of wrong done to somebody occurred in this district. Of 100,000 feet of 2 inch spruce plank, 16,000 feet were classed as refuse, having been purchased by a dealer on one of our lumber wharves. A party, who knew that the plank so classed as refuse was still in possession of the purchaser, and wished to obtain 2000 feet at a low price, went expecting to supply himself from this lot, but was told that they had no refuse two inch spruce plank. Either the inspection was wrong, or they intended to sell refuse lumber as merchantable. Such a transaction would not be possible, if the above suggestion, which only corresponds to the practice in the inspection of other kinds of merchandise should be adopted.

THE TREE THAT DESTROYS MALARIA.

From the San Francisco Bulletin.

The eucalyptus globulus, or Australian gum tree, is favorably known to all residents of California, where probably not less than 1,000,000 trees are planted. In this city, in front of handsome residences, you will find it with its magnificent drooping branches making an effective and graceful shade tree. In Oakland the broad avenues are lined with them, eucalyptus forests are planted in the country surrounding Oakland, and in fact, in every county of this state where the cold weather will permit it to live, the eucalyptus will be found growing.

The wonderful properties of this tree have only within the past few years been discovered and appreciated. It is justly claimed that when the tree flourishes in low, marshy, and feverish districts, all miasma will cease. It destroys the malarial element in any atmosphere where it grows, and is a great absorbent of moisture, draining the subsoil almost as thoroughly as a regular system of piping.

The eucalyptus is an evergreen, and is found in its native country (Tasmania) in boundless forests, both on the hillside and in the lowlands, under extremes of climates, both as to heat and cold, ranging from 130 deg. to 20 deg. Fahrenheit. Whether it will endure a greater degree of cold we think has as yet been undetermined. It is, however, worthy a trial.

Its remarkably rapid growth is a matter of much surprise, attaining, as it does, a maximum height of about three hundred feet, with a circumference of from thirty to fifty feet. For timber and fuel it is exceedingly useful, being hard and easily worked, and very serviceable for such purposes as the keels of vessels, bridges, etc., where strength and durability are essential. It is estimated that from \$4,000,000 to

\$5,000,000 in value of this timber is exported annually from Australia.

The leaves of this tree are of a dark bluish color, about ten inches long, an inch wide, thin and oddly twisted. They exhale a strong camphor-like odor, quite agreeable and pleasant, which, with the large absorption of water by the roots, cause the beneficial influence of the tree. It bears a small white flower, having no odor.

In consequence of its anti-febrile qualities, the English government has planted it extensively in the East Indies and Africa, in fever districts, with the most satisfactory results. In France, Cuba, Spain, Mexico, and many other places where malaria, fever, ague, and other pestilential diseases prevailed, the eucalypti have also been planted. The wonderful properties of this tree have been discussed by many scientific institutions in Europe. In the Academy of Sciences in this city its medical and anti-miasmatic qualities have received considerable attention. Dr. Pigne Dupuytren testified before that academy of the virtues of the eucalyptus, and stated that he and Dr. D'Olivera had tested it in the French hospital. In the garden surrounding this hospital a large number of the trees are planted for sanitary purposes. It had been found efficacious in the treatment of affections of the larynx and of mucous membrane in general. Experiments, carefully made, have proved that in a medical preparation it cures cases of intermittent fever, against which quinine alone proves powerless. It is also valuable as a disinfectant.

In Algeria its cultivation was undertaken on a large scale. Some 13,000 eucalypti were planted in an extremely pestilential and unhealthy section, where fever prevailed to a great extent every year. During the fourth year of their growth, at the time when the fever season used to set in, not a single case of fever occurred, yet the trees were only nine feet high. Since then this place is

reported free from its unwelcome visitations. In the vicinity of Constantinople, another fever spot, marshy and sickly, the whole ground was dried up by 14,000 of these trees. In Cuba, marsh diseases are rapidly disappearing upon the introduction of this tree. A railway station in the department of the Var, France, was so pestilential that the officials could not remain there longer than a year. Forty of these trees were planted, and the unhealthy condition of the place was changed.

Two miles from Haywards, in this state, the surveyor general planted two groves of the eucalyptus, one of about ninety acres and the other seventy acres, the whole comprising 150,000 trees. They are now only about five years old, yet many of the trees are forty to fifty feet high, the whole making a most extensive and beautiful forest, for fuel and timber purposes being worth thousands of dollars.

EXPORT DUTY ON SAW LOGS.

The special committee of the house of commons, of the Dominion of Canada, charged with enquiring into the working of the export duty upon logs, shingle-bolts, and stave-bolts, has made the following report:

That the export duty upon logs, shingle-bolts, and stave-bolts, imposed under schedule F of the tariff act of 1868, cap. 44 of 31 Vic. is a tax upon settlers and owners of timber, who are prevented by its operation from securing the full advantage of the best market.

That the export duty, while reducing the market value of logs and bolts for the benefit of mill owners, does not promote the manufacture of lumber, shingles, and staves at the principal Lake Erie ports and at many other points in Canada.

That a large proportion of the export of pine and oak logs as long timber enters into the same class of

consumption as does the square pine and square oak export of Canada.

That the exporters of round pine and oak from Lake Erie ports compete in American markets with Michigan timber dealers, to whom the Canadian export duty affords a considerable protection.

That since the imposition of the export duty a large amount of capital embarked in the round timber trade has been withdrawn from Canada and invested in Michigan.

RECIPROCITY AND THE LUMBER TRADE.

Comparison of Importations and Prices During and Since the Last Treaty Between the British Province and the United States.

IMPORTATIONS UNDER THE TREATY.

Year ending 30th June,		
1854.	Total imports	\$599,746
1855.	"	1,096,761
1856.	"	2,832,922
1857.	"	2,585,181
1858.	"	2,931,386
1859.	"	2,937,573
1860.	"	3,416,481
1861.	"	3,288,796
1862.	"	2,527,658
1863.	"	3,018,196
1864.	"	4,511,419
1865.	"	4,515,625
1866.	"	5,063,040

Total.....\$39,263,795

Average annual importation for 13 years \$3,020,202

AFTER THE TREATY EXPIRED.

1867.	Total imports	\$6,437,880
1868.	"	6,727,006
1869.	"	7,208,446
1870.	"	8,670,792
1871.	"	8,264,837
1872.	"	8,410,917
1873.	"	11,134,956

Total.....\$56,854,724

Average annual importation for 7 years \$8,122,108

PRICE LIST OF CLEAR PINE LUMBER IN TORONTO.

UNDER THE TREATY.

		Gold.
1857.	Price per 1,000 feet	\$11 00
1858.	"	11 50
1859.	"	12 00
1860.	"	11 50
1861.	"	11 00
1862.	"	11 75
1863.	"	11 50
1864.	"	14 50
1865.	"	13 50
1866.	"	20 00

AFTER THE TREATY EXPIRED.

1867.	Price per 1,000 feet	\$21 50
1868.	"	21 50
1869.	"	21 00
1870.	"	21 00
1871.	"	22 00
1872.	"	24 00
1873.	"	26 00

PRICE LIST OF SAME LUMBER IN PORTLAND, MAINE.

UNDER THE TREATY.

		U. S. Currency.
1857.	Price per 1,000 feet	\$26 00
1858.	"	27 00
1859.	"	28 00
1860.	"	30 00
1861.	"	30 00
1862.	"	32 00
1863.	"	35 00
1864.	"	50 00
1865.	"	50 00
1866.	"	50 00

AFTER THE TREATY EXPIRED.

1867.	Price per 1,000 feet	\$50 00
1868.	"	50 00
1869.	"	50 00
1870.	"	52 00
1871.	"	54 00
1872.	"	55 00
1873.	"	55 00

RAPIDITY OF GRAND RAPIDS, WIS.

A correspondent of the *Oshkosh Times* describes Grand Rapids, Wis., in this fashion:

This city has suffered considerably by fire lately, but the "waste places" are fast being covered with finer and more substantial structures. The streets have a business look to them and a good degree of activity seems to pervade all departments of trade and traffic. Three hotels are full of strangers and guests. There is scarcely a house to rent in the city, real estate corner lots are held at moderate figures, taxes are not high, the people are friendly and courteous to strangers, they have good schools and churches. So all things considered, Grand Rapids with her two railroads, the Wisconsin Valley railroad and the Green Bay & Marinette railroad, is a prosperous and desirable place. For the business of manufacturing she has perhaps no superior, having water power enough to run a hundred water wheels.

GOOD ADVICE TO THE TRADE.

The *Lumberman's Gazette*, our enterprising contemporary on the east shore of Lake Michigan, has assumed the form of a large eight-page weekly and instituted many marked improvements. We shall continue to be proud of it, notwithstanding its prosperity, so long as it gives those engaged in the lumber trade such sensible advice as this:

Among the lumber manufacturers there is and has been for some time, a difficulty which must sooner or later be corrected, and the sooner the better, perhaps. There are too many of them doing business on an almost exclusive credit system, and others who have been in the habit of receiving very heavy lines of credit, considering the extent of their business. The banks are inclined to curtail those credits, and unless sales of lumber are made promptly, and for cash to meet current expenses, there is a cramped condition for the manufacturer. Whether or not the banks are as accommodating as they might and ought to be, is a question we suggest for their consideration, but we do insist that the business in lumber should be reduced to a proper and legitimate basis, instead of carried on after the inflated fashion of the past few years. For the present year there is, or will be, a demand for every foot of good lumber manufactured in America, and at prices which will leave a reasonable margin for the manufacturer. Courage in the face of facts, courage to meet any depressing influence which may arise, or which may now exist, courage to limit business to the means employed, and courage to abandon the complaining spirit, will do more for the health of trade and commerce than any imaginary results of legislation affecting currency, whichever way an increase in the circulating medium might affect the country.

TIMBER AND WATER IN TEXAS.

A correspondent of the *Fond du Lac (Wis.) Commonwealth*, gives the following information about Texas:

Texas is well supplied with streams of living water, and they comprise some of the most magnificent rivers in the world, many of them navigable for steamboats and other large crafts, for hundreds of miles, go coursing on their way through the state to the great Gulf. Commencing with the Red River, which forms the northern boundary of the state, we have the Sabine, Trinity, Brazos, Colorado, Gaudalupe, Nueces and the Rio-Grande, which forms the southern and south-western boundary, with their innumerable tributaries, constituting at once the grandest irrigating and drainage system in the world, and furnishing a never failing supply of the best of water for stock and other purposes. Good living well water can be obtained in most parts of the state at a depth of from fourteen to fifty feet, while bright, sparkling springs of that health-giving beverage come bubbling up through the bosom of mother earth, or trickling down the sides of some bluff as if to say, man need not thirst or fly to any subtle, soul-destroying substitute of art, for relief. Nearly all these water courses are lined with a belt of timber extending from a few rods to six or eight miles in width, and large groves embracing thousands of acres of excellent timber for building and other purposes are found in the interior prairies, even in the poorest timbered portion of the state, which is the western counties. The eastern counties are said to be unsurpassed for the abundance and excellent quality of their timber. The principal varieties are pine, cypress, cedar, black walnut, white oak, elm, ash, hickory, pecan, mesquit and bois d'arc.

Subscribe for the LUMBERMAN.

LUMBER TRADE AND MANUFACTURES OF ZANESVILLE, OHIO.

From Mr. E. F. Taylor's annual report of the Zanesville Board of Trade, we take the following description of the lumber interests of that city:

Timber—The forests which originally covered the territory of Muskingum county were very dense, and the trees of the largest growth. Nearly all the varieties of timber known to the forests of this latitude were here found. Here were numerous varieties of oak and hickory, yellow and white poplar, black and white walnut, the ash, maple, sugar tree, beech, sycamore, chestnut, buckeye, wild cherry, common and slippery elm, gum, honey and common locust and dogwood. These varieties constitute the principal forest timber. The wild plum, crab and thorn apple, persimmon, june or service berry, wild grape, and other varieties of wild fruits are abundant. About one-third of the entire area of the county still remains wood or timber land, and among the still existing timber can be found all the varieties above named.

Door and Sash Factories.—Another important industry of Zanesville is its door and sash factories. In these factories are not made doors and sash merely, but window frames and blinds, flooring and general furnishings, in fact everything connected with the department of carpentry. There are six establishments of the kind in the city, in all the machinery is driven by steam power, and the quality of the work, its finish, style and durability, is fully up to the standard adopted in the largest cities. Not for private residences merely, but for offices, churches and public structures of all kinds, are orders filled for whatever is demanded. Zanesville possesses facilities for the successful prosecution of this branch

of industry peculiarly advantageous. Aside from the fact that the home supply of lumber is considerable in amount, the city is accessible by rail and river navigation to the extensive forests of West Virginia, where the supply of soft poplar is inexhaustible, and has the advantage of canal and railroad for transportation of pine lumber from the forests of Michigan and Canada. There are few points where lumber and material for finishing buildings can be had more cheaply and in greater variety than here. The market for these manufactured articles is not dependent merely on the home demand, but is found in the towns along the different lines of railroad here converging, and also the canal and river.

Furniture.—To the manufacture of furniture here little attention has hitherto been paid. There is at this time, however, manifest a rapidly increasing interest in this business, and the indications are that at a not distant day it will be considered one of the important industries of Zanesville. The fact that steam power is here so cheap, and that lumber of every variety employed in the manufacture of furniture, pine, white and yellow poplar, black and white walnut, oak, wild cherry, maple and other woods, can here be supplied so cheaply and readily, has had the effect recently to impart to this business an unwonted stimulus. There are now several quite extensive furniture establishments in the city, and the styles of furniture manufactured, parlor and chamber sets, drawing-room and office furniture, have, on account of their elegant finish, commanded general attention, and secured for their proprietors sales in eastern and western cities. Parlor sets of the richest and most elegant designs have been ordered from Zanesville shops to furnish the mansions of the wealthy in distant communities.

With lumber and transportation cheap, Zanesville can manufacture at

a profit every article of wood work which the house or the farm may require. Whatever of furniture or agricultural implements may be called for or ordered may here be met. It can and should manufacture everything from a chair to a piano, from a hand rake to a reaper, from a wagon to a rail car.

SECOND ANNUAL MEETING OF THE SOUTHERN LUMBER AND TIMBER ASSOCIATION.

The convention assembled at 11 o'clock in the director's room of the bank of New Hanover. J. A. Kingsley, Esq., president, not having arrived, the meeting was opened by the 1st vice president, Edward Kidder, Esq., who occupied the chair. On motion of Mr. O. G. Parsley, Sr., Capt. W. A. Cumming was appointed temporary secretary.

The following gentlemen were present: Geo. F. Drew, Ellaville, Fla.; Wm. H. Gray and Alex. Wallace, Jacksonville, Fla.; E. Kidder, Cowan Mills; Jas. H. Chadbourn, Clarendon Mills; Capt. W. A. Cumming and Samuel Northrop, Wilmington Mills; O. G. Parsley, Sr., Hilton Mills; Jno. Colville, Harrison Mills; L. H. Bowden, inspector and dealer in timber, Wilmington, N. C.

Mr. Kidder stated that there were but few delegates present as yet, but expressed the hope that there would be a full attendance on to-morrow's session.

Mr. Drew being called upon by the chair, said that he was glad to be here and to have formed the acquaintance of the mill owners of this city and to learn from an interchange of opinions among those who had so much experience in the business, what must of necessity prove advantageous to each one.

The gentlemen then indulged in an informal conversation upon interesting and general topics; the opinion being expressed by Mr. Kidder that although this had been a hard winter upon the saw mill interest,

yet he had known such times before, and expressed the hope that it would before long begin to "look up;" that people were bound in the future as in the past to use lumber. He likewise thought that the great interests in that direction lay further south, owing to the vastness of the forests and the low price of timber.

Mr. Drew said that while he must acknowledge the advantages as stated by Mr. Kidder, yet he thought the cheaper rates from this point counterbalanced them.

Mr. Chadbourn asked what were the rates from Jacksonville,

Mr. Drew said \$10 to \$10 50 per M to New York, \$11 per M to Boston, and \$12 to Maine.

After an invitation from the gentlemen of this city to the delegates from other points to visit their mills, it was

Resolved, That the thanks of this meeting be and they are hereby tendered to the president of the bank of New Hanover for the use of his spacious and elegant room for the place of meeting.

Resolved, That this meeting do now adjourn to meet in Jacksonville, Fla., on the first Thursday in February, 1875.—*Wilmington, N. C., Star, May 28.*

THE ASHLAND LUMBER COMPANY.

This company is now prepared to fill all orders for lumber, dimension stuff, square timber, and bill lumber of every description. Their mill will start up with a full complement of hands about the 1st prox., and will make short work with the fine stock of logs now on hand—about a million and a half feet. The mill is new, contains all the latest improved machinery, and has a capacity of 40,000 feet a day. They also manufacture shingles, lath and pickets of a superior quality. The company has now on hand at their yard about one million feet of seasoned lumber of almost every variety, including first

class clear stuff and finishing stock, dressed flooring, ceiling, &c.

Mr. W. R. Sutherland succeeds Mr. E. H. Moore, in the management of the business, and as he is an old and experienced lumberman, parties desiring lumber will find no difficulty in transacting business with him. We are glad to notice the advance of this enterprising company, as it is the pioneer manufacturing establishment of our young city, (that is to be), and we bespeak for Mr. Sutherland a lively business with our neighboring towns and the mining districts on the lake. We ask that the Ashland Lumber Company be given a fair trial.—*Ashland Press.*

LEGALIZING ROBBERY OF LUMBERMEN.

The timely notice of the bill being introduced by Mr. David Mills has aroused the lumbermen to the danger which threatened them if it became law. We do not desire to assert that Mr. Mills has any personal interest in this measure, but suspicious people may insinuate that some of Mr. Mills' acquaintances know where there is a good plant of sunken oak which could be raised with very great profit if the parties who did so could claim it legally. The Chaudiere lumbermen have thousands of pieces of timber sunk in different parts of the Ottawa, where it is just as safe as it would be in their own yards until it is wanted; but if Mr. Mills' bill to legalize the robbery of lumbermen is passed, no more timber can be considered safe. If Mr. Mills is honest in his desire to have sunken timber removed from navigable streams, he would ask the government to introduce a measure by which the owners of such timber can be notified that unless they remove it, it will be raised at public expense and sold to the highest bidder, the balance of the proceeds of such sale, after the expenses were deducted, to be refunded to the person who owned the timber.

Messrs. Bronson, Baldwin and Perley were making inquiries after the bill this morning, to prevent, if possible, its being passed in its present shape.—*Ottawa Citizen.*

MIDDLE-MEN IN THE TIMBER TRADE.

One of our technical contemporaries has some very sensible remarks on a subject which will be interesting to a large body of our readers: The London timber trade is quite distinct from that of the provinces, and only those who know its numerous "wheels within wheels" can appreciate its movements. Take, for example, Hull. If you want to buy a parcel of wood there you go to the merchant of your selection, and, failing to make a bargain, proceed to another; but in London we have drifted (by force of circumstances, perhaps) into quite a different style of doing business, and one which goes far to limit the number of such large firms as still flourish, and are the backbone of more than one outport.

It is not generally known that foreign houses often sell through brokers here, and positively let the consumer have, say £200 or £300 worth, at a trifle per standard beyond the price a cargo of the same goods would be invoiced to a merchant. This makes it cheaper to buy at sales by auction, if it is a matter of no consequence to buy a larger quantity than may really be wanted at the time.

The writer of this article is responsible for the truth of the following: Wishing to buy from 300 to 500 squares of flooring, he applied to the agent of a foreign house, who asked him a price he did not feel justified in giving, and which he was assured was the very lowest price that could be entertained, and that for cash less 2½ per cent. Attending the Wednesday's sale on the following day, he bought the identical

goods at 6d. per square less, and with the advantage of six months credit.

Although the sales are fairly conducted, it is a question whether the timber market in London would not be in a healthier state if trade flowed through the ordinary channels. Look through the "Postoffice Directory," and point out how many of the London timber merchants are importers of their own wood. It only pays large firms to do so, because they can, by negotiation, manage to undersell the brokers occasionally, but men of lesser capital have no chance whatever. What is wanted in the London market is more competition with the foreign houses. It seems a paradox, but it is true. So long as trade flows through certain channels (or principally so), so long there will be some sort of a monopoly, and prices will be regulated, not by open competition, but by the wishes of a select few. Now why should we not import our own wood? If not able to take a small cargo, there are plenty of opportunities for even twenty or thirty standards being sent. Some large houses do this already to a small extent, but the time is not far distant when it will be quite a common event. At present some foreign houses would make it a point of honor not to supply goods to the customers of the English market at any price whatever, but it must be remembered that before the railway system came into operation the English merchant would not sell to a country builder unless on similar terms to those of the local merchant. Now, however, both may buy on the same terms, and the tendency of the day is to extend this movement, and to bring the actual consumer of wood into personal relations with the actual producer. In short, "middle-men" are dying out.—*The Furniture Gazette, London.*

WHAT IS HURTING CHICAGO'S REPUTATION.

From the Northwestern Lumberman.

It is about time the senseless notions which prevail in some quarters, concerning the lumber market of this city, are either done away with, or so thoroughly ventilated as to cause their reaction upon those who promulgate them, and whose ignorance or willful meanness are their sole cause. We very often hear the expression from outsiders, "Your Chicago market is in very bad odor abroad, it is impossible to obtain fair prices or fair play there." This not unfrequently comes from men who are shipping their lumber directly upon this market for sale. It is true that low prices have prevailed here for two or three seasons. That less prices are now being realized here than in almost any market in the country. But what is the cause? Invariably, just what the present difficulty is—the crowding of inferior, almost worthless, grades of lumber upon this market by manufacturers from these same sections from whence come the libelous assertions! An impartial observer to have watched the state of our market during the present season, would be tempted to wonder greatly that prices have been as well sustained as they have, would sometimes wonder that the coarse, common stuff, which frequently arrives at our docks, does not lie there until rotten with age, for want of buyers. If our dealers have consignments crowded upon them to such an extent as to fairly glut the market, is it any wonder that it becomes lifeless under the over pressure? The cargo *must* be sold, as the dealer cannot take the lumber from the vessel and hold it for better figures, the craft must return for another load to be put through the same process!

The remarks of our valued correspondent from Albany upon commission dealing are exceedingly well timed, and in a measure might apply to this market. There is one simple proposition which covers the whole

ground, i. e., if a better state of things is to be realized, at this or any other point, the movement must be inaugurated by the manufacturers, who, sooner or later must conform to the laws of supply and demand.

THE SCOTCH TIMBER TRADE.

At a meeting, lately held in Greenock, the rules of an association to be called the Scottish Timber Carrying Trade Association were agreed to. Directors were appointed to represent firms in Greenock, Port Glasgow, Leith, and Aberdeen; and Messrs. Alexander Ferguson and D. MacDonald, Greenock, were appointed chairman and secretary respectively. The following alterations on the charter-party were agreed to, viz: That freight be paid free from discount in equal instalments on ship's arrival, on completion of discharge, and fourteen days thereafter; that cargo be brought to and taken from alongside the ship at ports of loading and discharge at merchant's risk and expense; that full freight be charged for sawn timber from pitch pine ports; that hardwood or red pine discharged over the stipulated quantity pay 20 per cent. extra freight, and that broken stowage be charged for, but at reduced rates. The secretary was instructed to take action in reference to rates of towage and pilotage in the St. Lawrence, and to endeavor to get the latter reduced in all cases where vessels are towed to and from Quebec. The directors were authorized to watch over board of trade interference.—*The London Building News.*

But few persons are aware of the magnitude and perfection to which the manufacture of doors and window blinds by machinery has arrived in the United States. It is stated by those who profess to know, that the number of doors alone made within the state of New York, exceeds 30,-

000 per day, or not far from nine millions per year. From statistics deemed reliable, it is believed that the amount of capital invested in this branch of manufactures in this country cannot fall short of \$40,000,000.

A NEW ENTERPRISE AT WILMINGTON, N. C.

A sash and blind factory is to be established at Wilmington, N. C. The machinery is now being put in place and the factory will be in operation in about two weeks. Mr. Wm. Dykes, of Tarora, Illinois, where he carried on the business for about ten years, is at the head of this enterprise and will conduct its business operations. The manufactory is expected to turn out sash, doors, blinds, brackets, mouldings, stair rails, balusters, fancy scroll work, circular or irregular mouldings, window and door frames, casings, etc.—*Boston Lumber Trade.*

SAWING ON THE AHNAPPEE

The *Advocate* says that the mill of Youngs & Fetzer, at Forestville, is doing a good business. It is cutting out pine shingles, hardwood lumber, and a small quantity of pine lumber. The shingles are shipped to Chicago and the hardwood lumber to Chicago and Racine, while the pine lumber is stacked up and sold for home consumption. The mill started up last January and will run until the fall when it will shut down for a short time and start up again in December. During last winter the mill did a large amount of custom sawing, some of it for parties living at points from 10 to 18 miles distant. About 500,000 feet of lumber was sawed for farmers in the Belgian Settlement, which would indicate that considerable building is contemplated there. The dredging out of the mouth of the Ahnapee river will favorably effect the lumber business

as it will reduce the pierage on lumber from 50 cents per thousand feet to zero. There is one scow running on the river from the saw mill to the mouth, that will carry forty-five cords of wood, and another has just been launched that will carry fifty cords. It is calculated that either of these scows are sufficiently strong and sea worthy to be rigged up as sailing crafts and run to Milwaukee.

LUMBER TRANSPORTATION.

Whilst the agitation for cheap transportation goes bravely on in the western states, there seems to be nothing of importance accomplished here in that direction, save, perhaps, the steady growth of the anti-monopoly feeling, among our people. There are, however, especial features of the subject which are worthy of the attention of all classes as will be readily inferred from what may follow. We wish to speak particularly, here, of the transportation of lumber, the manufacturing staple of this section, and hope to confine this article to merely raising a few points concerning it, for consideration. That the charges of the railroad companies for shipping lumber are high enough, must be evident from a communication which appeared in the *Register* some months ago, since the writer of the communication stated that he spoke with authority.

Whether the charges are in excess when compared with other charges, is a question worthy of examination. In regard to this, we have been shown a letter from a gentleman extensively engaged in lumber operations both east and west, and who is probably thoroughly informed on the subject. We quote as follows:

"The suicidal policy of our railroads is daily becoming more manifest, and has seriously affected business. The rates to many points are so nearly equal that lumber costs from two to seven dollars per thousand feet less from Michigan than from Pennsylvania. Below are com-

parative statements of cost, say to Chambersburg, Pa., and to Hagers-town and Frederick, Md.:

PRICES DELIVERED.

	Mich.	Williamspt.
Plank, select and better.....	\$ 50	\$ 57
Pickets.....	40	43
Flooring qual.....	32	33
Bart.....	24	27
Culls.....	18@20	21@23

The foregoing are now ruling prices to all leading points between the west and Baltimore and Philadelphia, including the latter cities, while to New York and points on that line, a difference exists of \$10 a car more than at first named points. Pine joists 2x8, are delivered to various points at \$22 per M feet, which is only \$2 or \$3 per M more than hemlock costs, and can be used for various purposes."

After detailing the variation in rates between some western and eastern dealers, he observes that some Williamsport parties are offering lumber at lower than established prices, statements here made indicate a lack of discrimination as to distance of freighting and an undue taxation of our lumbermen in this section. Although the prices of some kinds of lumber may be lower at the place of manufacture in the west than the prices of the same kinds of lumber are here, the wide disparity of distances makes it clear that the freight upon our manufactures are disproportionately large. In other words, lumber shipped two hundred miles must be sold for considerable more per M feet to cover freights than the same kind of lumber shipped a thousand miles. The same principle that governs the tariffs on lumber applies to the freight on other articles transported. These are matters for serious attention by lumbermen and others as well. There appears to be something in the practices of transportation companies which needs reformation, and we think a thorough investigation and study of the subject will result in some good. — *Williamsport, Pa., Register.*

THE MARKETS.

MILWAUKEE, July 11, 1874.

The slight revival of trade which characterized the Milwaukee lumber market during the fore part of June has suffered a relapse and the yards are again dull and inactive. No material change in prices are given in the market quotations, yet there is evidence that dealers are continually cutting prices. In all of the western markets were there is much competition the process of cutting prices is the bane of the lumber trade. Notwithstanding the extreme low prices and small margin of profit, dealers seem to have an unusual desire to force sales and therefore to a greater extent than usual resort to the practice of underselling their competitors. The extreme low price of lumber to-day is more the result of this suicidal policy than of lack of demand or over supply of lumber. Lumbermen will appreciate the fact keenly when they realize that No. 1 box-boards may actually be bought in the Albany market to-day for \$13 per M. We quote yard rates 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.....	23	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	@
1st and 2d clear 1½, 1½ and 2 inch.....	45	00	@
3d clear do.....	35	00	@
Wagon Box Boards.....	80	00	@ 35 00
A stock do.....	35	00	@
B do do.....	25	00	@ 12 00
C do do.....	13	00	@
Square pickets.....	13	00	@ 12 00
Flat pickets.....	2	50	@ 2 75
Lath ¾ M pieces.....	3	25	@
A shingles, ¾ M.....	1	50	@ 2 25
No. 1 do do.....	15	00	@ 18 00
Timber, 18 to 22 ft.....	15	00	@ 35 00
Timber, 24 ft and over.....	18	00	@ 35 00

Chicago, Illinois.

From the Inter-Ocean, July 15.

The following table shows the movement of lumber, shingles, and lath for the periods named:

RECEIPTS.

	Lumber, Feet.	Shingles, No.	Lath, No.
Last week.....	35,242,000	1,526,000	2,296,000
Same week in 1873.....	37,899,000	10,758,000	8,182,000
Since Jan. 1, 1874.....	443,746,000	315,300,000	38,985,000
Same time in 1873.....	459,201,000	248,804,000	39,550,000

SHIPMENTS.

	Lumber, Feet.	Shingles, No.	Lath, No.
Last week.....	16,325,900	6,582,000	1,269,000
Same week in 1873.....	16,228,000	6,960,000	1,688,000
Since Jan. 1, 1874.....	230,445,000	200,078,000	18,352,000
Same time in 1873.....	265,795,000	190,741,000	24,715,000

FREIGHTS—There has been no change of any importance to note in connection with this market. The offerings of vessels was large and in excess of the demand; rates ruling weak and easy, but not quotably lower.

Oconto.....	\$1 75
Manistee.....	1 62½
Ludington.....	1 50
Muskegon.....	1 37½
Pentwater.....	1 37½
White Lake.....	1 37½
Saugatuck.....	1 37½
Grand Haven.....	1 37½

In the yards trade was rather quiet throughout. Prices for joist, scantling, fencing and common boards, were 50 cents lower. Shingles were dull and slow sale at lower prices. The market closed steady at the following:

YARD PRICES.

First clear.....	\$53 00	@ 55 00
Second clear.....	43 00	@ 50 00
Third clear, 1 in.....	40 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.....	23 00	@ 24 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 08
Stock boards, A.....	32 00	@ 35 00
Stock boards, B.....	28 00	@ 30 00
Common boards.....	10 00	@ 11 00
Joist, scantling, small timber, etc 16 feet and under.....	10 50	@ 11 50
Fencing.....	10 50	@ 11 50
Joist and scantling, 18 to 24 ft.....	14 00	@ 20 00
Pickets, square.....	12 00	@ 13 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.....	2 25	@ 2 50
Shingles—Sawed No. 1.....	1 25	@ 1 35
" "A".....	2 00	@ 312½
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 16

ers, for cash, being equivalent to \$13.25 or one thousand feet rafted and fitted for pilot. A fine raft of logs sold at \$11 to \$12, rafted and fitted. Sale of long logs at \$10 to \$10.50; also two rafts of short logs at \$9 to \$10.75 fitted and rafted.

It is conceded by those interested in the log drives that with the exception of about two million feet on Straight river, Pleases' loss on Clam, a small lot on Yellow, and possibly a portion of Getchell's Hay creeks logs, on the Upper Snake, the entire winter's cutting will all reach the boom. All St. Croix tributary logs, excepting upper Snake, will be in the boom this week. Upper Snake logs will doubtless be in the boom in the course of a week.

The quality of logs now in the boom are superior to any previous seasons, both as to size and quality. This is the opinion of our log men generally. The boom corporation are turning off logs at the rate of two and a half million feet per day.

1x10 stocks, 13 ft, culled.....	22	26
1x10 stocks, 18 ft, culled.....	15	18
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	18
1x12 stocks, 16 ft, culled.....	23	26
1x12 stocks, 16 ft, culled.....	15	17
1x 4 stocks, culled.....	23	28
1x16 stocks, culled.....	23	28
1x10 plank, culled.....	22	27
1x10 plank, culled.....	15	17
Inch strips, culled.....	22	30
1x inch strips, culled.....	22	30
1x1x inch strips, culled.....	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	5
“ “ 1st “ 16 inch.....	4	00
“ “ 2d “ 18 inch.....	8	50
“ “ 2d “ 18 inch.....	3	25
“ cedar 1st “ 18 inch.....	4	50
“ “ 2d “ 18 inch.....	2	20
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.....	2	15

Oswego, New York.

From the Oswego Palladinne.

WHOLESALE MARKET.

OSWEGO, July 7, 1874.

The week just closing has been the dulllest that we have been called upon to chronicle. Though our figures show a slight increase in sales over last week it should be mentioned that the sales of two or three dealers have been comparatively large, while the balance have been all very small indeed. All of the yards are well supplied. We make no changes in prices but are inclined to think that all the sales made are not up to quotations.

SALES.		
For the Week.	Last Week.	Increase.
1,516,725 ft.	1,511,307 ft.	5,418 ft.

RECEIPTS KY LAKE.

For the Week.	Last Week.	Season to date.
3,956,908 ft.	9,906,815 ft.	93,771,803 ft.

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
1½ inch siding, mill run.....	22 35
1½ “ “ selected.....	38 40
1½ “ “ box.....	14 16
1½ “ “ mill run.....	24 32
1½ “ “ se'lected.....	35 42
1½ “ “ box.....	14 16
2 “ “ mill run.....	24 30
2 “ “ selected.....	38 42
2 “ “ box.....	14 16

Albany Lumber Market.

From the Albany Argus, July 7th.

The receipts by both canals show a large falling off in the quantity of lumber delivered since our last report; the decrease is principally in receipts by the Champlain, and may in part be attributed to the check on productions, of which we have already spoken. The week including the "Fourth" is always a broken one, the attendance of buyers has been light, with the exception of Wednesday and Thursday, when sales of several round lots were made on p. t., but understood to be below our quotations. The week closes rather quiet.

Freight on lumber from Oswego to Albany, \$3.12 $\frac{7}{8}$ M; from Buffalo \$4.50 and \$5.50 respectively.

An Ottawa dispatch shows a decrease in the shipments of lumber thence in June of some 7,000,000 feet; the number of American vessels freighting lumber from the Claudiere in June was 154, against 92 a year ago; of Canadian vessels 74, against 154; it will thus be seen that American boats are fast securing the lumber freighting business.

The Belleville [U. C.] *Intelligencer* says the trade is in an unsatisfactory condition; but little is being shipped hence, the United States markets giving no margins.

The shipments from Bay City for June were 48,000,000 feet, and in excess of those in June, 1873; the total shipments thus far are 121,000,000 feet.

There is nothing new at Saginaw; the failure of the reciprocity treaty is received with favor; the reported sales are 1,300,000 feet, at \$6, \$12, \$35; 200,000 feet to Buffalo parties at the same figures; 1,000,000 to Buffalo parties, one half to be cut at \$5 50, \$11 and \$35, at 500,000 feet selects at \$7, \$13 and \$36.

The Oswego Commercial Times reports the receipts to July 1st as follows:

1874.....95,927,000 feet	1870.....107,439,000 feet
1873.....89,182,000 feet	1879.....87,128,000 feet
1872.....72,496,000 feet	1868.....86,769,000 feet
1871.....97,006,000 feet	1867.....69,222,000 feet

At Chicago the reported receipts of lumber, by lake to the 30th of June were 372,033,000 feet against 388,989,000 feet the year previous; the shipments from January 1st, are 252,124,000 feet against 232,140,000 previous year.

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

Bds. & sc'tl'g ft. Shingles M. Tim'r c ft. Staves, lbs.	
1873...15,695,500	305
1874...10,416,800	422

Of the boards and scantlings received 7,498,300 feet were by the Erie, and 2,917 500 feet by the Champlain canal.

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

Bds. & sc'tl'g ft. Shingles M. Tim'r c ft. Staves, lbs.	
1873...101,858,500	1,069
1874...129,990,500	4,144

River and eastern freights are quoted as follows:

To New York per M.....\$	1 25
To Bridgeport.....	2 00
To New Haven.....	2 00
To Providence.....	2 50
To Pawtucket.....	3 00
To Norwalk.....	1 75
To Hartford.....	2 75
To Middletown.....	2 25
To New London.....	2 50
To Philadelphia.....	2 75
To Baltimore.....	4 00
To Richmond, Va.....	5 00
To Boston, softwood.....	5 00
To Boston, Hardwood.....	6 00

The present current quotations of the yards are:

Pine, clear $\frac{1}{2}$ m.....\$	@58 00
Pine, fourths $\frac{1}{2}$ m.....	@53 00
Pine, selects $\frac{1}{2}$ m.....	@45 00
Pine, good box $\frac{1}{2}$ m.....	28 00@25 00
Pine, common $\frac{1}{2}$ m.....	15 00@18 00
Pine, clab board strips.....	@45 00
Pine, 10 inch plank, each.....	40 00@44 00
Pine, 10 inch plank, culls, each.....	23 00@24 00
Pine, 10 inch boards, each.....	27 00@31 00
Pine, 10 inch board, culls, each.....	17 00@19 00
Pine, 10 inch boards, 16 ft, $\frac{1}{2}$ m.....	26 00@28 00

Pine, 12 inch boards, 16 ft, $\frac{1}{2}$ m.....	28 00@30 00
Pine, 12 inch boards, 13 ft, $\frac{1}{2}$ m.....	26 00@29 00
Pine, 1 $\frac{1}{4}$ inch siding, select, $\frac{1}{2}$ m.....	42 00@45 00
Pine, 1 $\frac{1}{4}$ inch siding, common, $\frac{1}{2}$ m.....	@18 00
Pine, 1 inch siding, select, $\frac{1}{2}$ m.....	40 00@43 00
Pine, 1 inch siding, common, $\frac{1}{2}$ m.....	15 00@18 00
Spruce boards, each.....	@15
Spruce plank, 1 $\frac{1}{4}$ inch, each.....	@18
Spruce plank 2 inch, each.....	@28
Spruce, wall strips, each.....	@12
Hemlock boards, each.....	@15
Hemlock boards, 4x6, each.....	@34
Hemlock joists, 2 $\frac{1}{2}$ x4, each.....	@11
Hemlock wall strips, 2x4, each.....	@14
Hemlock plank, 2 inch, each.....	@32
Black Walnut, good, $\frac{1}{2}$ m.....	75 00@85 00
Black Walnut $\frac{1}{2}$ inch, $\frac{1}{2}$ m.....	75 00@78 00
Black Walnut, $\frac{1}{4}$ inch, $\frac{1}{2}$ m.....	75 00@80 00
Sycamore, 1 inch $\frac{1}{2}$ m.....	33 00@35 00
Sycamore, $\frac{1}{2}$ inch $\frac{1}{2}$ m.....	30 00@22 00
White wood, chair plank, $\frac{1}{2}$ m.....	65 00@68 00
White wood, 1 inch, and thick, $\frac{1}{2}$ m.....	38 00@45 00
White wood, $\frac{1}{2}$ inch, $\frac{1}{2}$ m.....	35 00@40 00
Ash, good, $\frac{1}{2}$ m.....	38 00@43 00
Ash, second quality, $\frac{1}{2}$ m.....	25 00@30 00
Oak, good, $\frac{1}{2}$ m.....	38 00@45 00
Oak, second quality, $\frac{1}{2}$ m.....	25 00@30 00
Cherry, good, $\frac{1}{2}$ m.....	60 00@70 00
Cherry, common, $\frac{1}{2}$ m.....	25 00@30 00
Birch, $\frac{1}{2}$ m.....	20 00@25 00
Beech, $\frac{1}{2}$ m.....	22 00@25 00
Basswood, $\frac{1}{2}$ m.....	40 00@45 00
Hickory, $\frac{1}{2}$ m.....	22 00@30 00
Maple, $\frac{1}{2}$ m.....	40 00@45 00
Chestnut, $\frac{1}{2}$ m.....	@7 75
Shingles, shaved pine, $\frac{1}{2}$ m.....	@6 00
Shingles, do, 2d quality, $\frac{1}{2}$ m.....	@5 75
Shingles, extra sawed pine, $\frac{1}{2}$ m.....	5 50@4 50
Shingles, clear sawed pine, $\frac{1}{2}$ m.....	2 50@2 75
Shingles, sawed 3d quality, $\frac{1}{2}$ m.....	3 00@5 25
Shingles, cedar, $\frac{1}{2}$ m.....	@3 00
Shingles, hemlock, $\frac{1}{2}$ m.....	@3 00
Lath, hem'ock, $\frac{1}{2}$ m.....	@2 00
Lath, spruce, $\frac{1}{2}$ m.....	@2 12
Lath, pine, $\frac{1}{2}$ m.....	@2 50

THE NEW LAW RELATING TO PATENTS AND TRADE MARKS.

The new law relating to patents, trade marks, and copyrights, provides that no person shall maintain an action for the infringement of his copyright, unless he shall give notice thereof, by inserting in the several copies of every edition published, in the title page, immediately following, if it be a book, or if a map, chart, musical composition, print, cut, engraving, photograph, painting, drawing, chromo, statue, statuary or model, or design intended to be perfected and completed as a work of fine art, by inscribing upon some visible portion thereof, or of the substance on which the same shall be mounted, the following words: "Entered according to act of Congress, in the year —, by —, in the office of the Librarian of Congress at

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Rev. H. W. Beecher loves the tree planter and despises the woodman's ax.—*Exchange.*

That must be because his son went into the lumber business three or four years ago.

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



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400 acres in sec. 21, 22, 30.....T. 137, R. 33
440 acres in sec. 1, 12.....T. 137, R. 34
160 acres in sec. 10, 22, 24, 34.....T. 137, R. 33
877 acres in sec. 6, 11, 18, 14, 24, 25, 33, 34.....T. 138, R. 25
160 acres in sec. 8.....T. 137, R. 33
240 acres in sec. 4, 18.....T. 131, R. 30
480 acres in sec. 10, 14, 24.....T. 131, R. 31
200 acres in sec. 18.....T. 132, R. 30

240 acres in sec. 10, 14, 21.....T. 132, R. 31
360 acres in sec. 14, 18, 24.....T. 132, R. 31
240 acres in sec. 30.....T. 40, R. 25
380 acres in sec. 3, 22, 24, 26.....T. 40, R. 29
320 acres in sec. 6, 10, 23, 34.....T. 51, R. 24
360 acres in sec. 10, 14, 26, 34.....T. 51, R. 27
320 acres in sec. 14, 22, 26, 30, 34.....T. 53, R. 26
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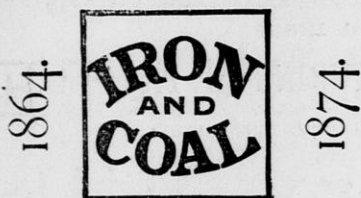
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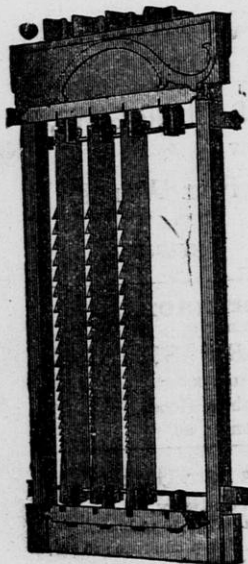
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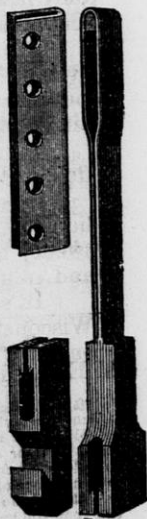


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CONANT RAPIDS, at CITY OF STEVENS POINT, WIS.

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Most Valuable Mill Property on the Wisconsin River.

This Mill adjoins the own plan of the city of Stevens Point, and within one and one-half miles of the city. Has one large double Rotary, capable of cutting fifty thousand ft. per day of eleven hours, with Gang Edger, Cutting-off Saws, etc. This Mill is new, with the latest improvements; was run only last summer. Also one Stock Gang, one Slabbing Gang, and Shingle, Lath and Picket Mill.

There is eleven foot head of water the year round; Water Wheel of Rotary Mill never freezes; can saw in summer and winter, and never lacks power. Each mill has its own separate flume, enabling you to saw with either Mill alone.

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The Boomage is now capable of holding from six million to eight million feet of logs, and with a very small expense, would be capable of holding twenty million feet. The Piers, Dams and Mill all rest on rock foundation, and in good order.

In short, this is the most complete lumbering establishment on the Wisconsin river, and presents an opportunity to any one desiring to go into business seldom met with.

Also an immense water power, capable of running a number of mills of various kinds, which is now valuable, belonging to the property.

For further information enquire of the subscriber at the mill, or A. EATON, Esq., at Stevens Point.

J. M. ROBISON.

Stevens Point, Wis., March 1, 1874.

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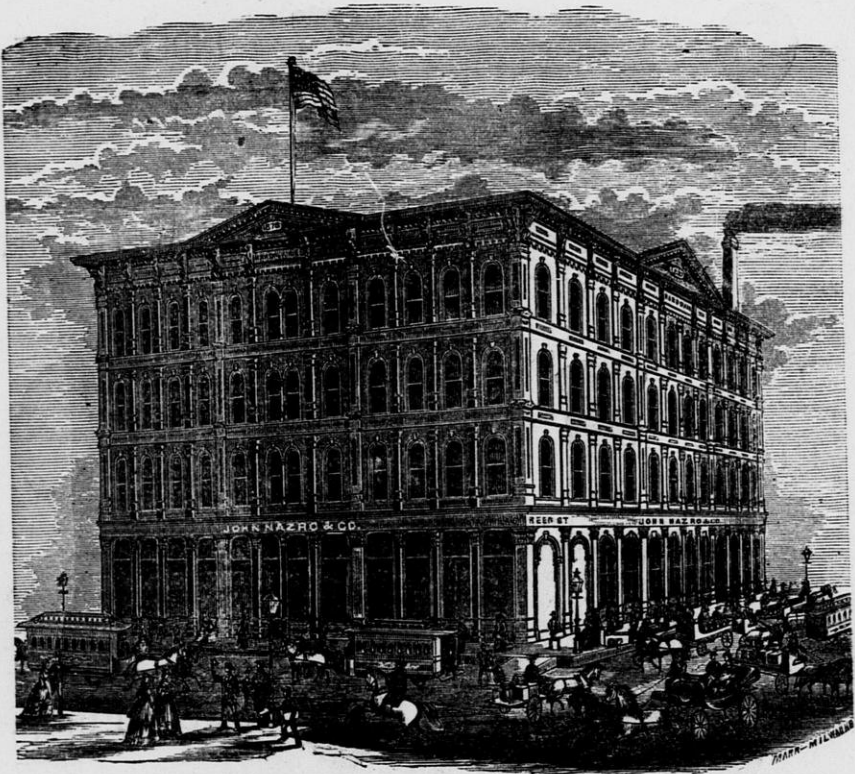
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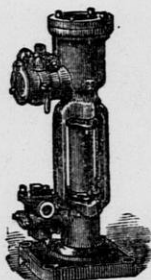
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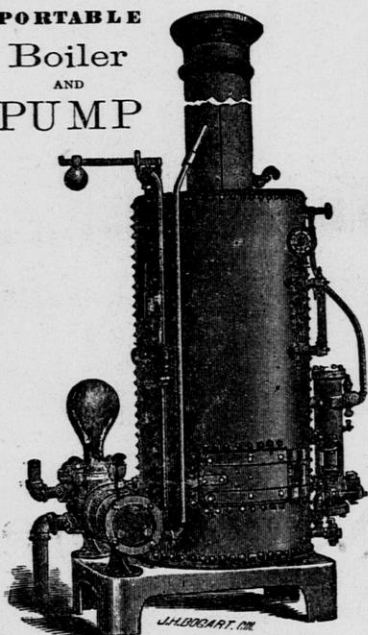
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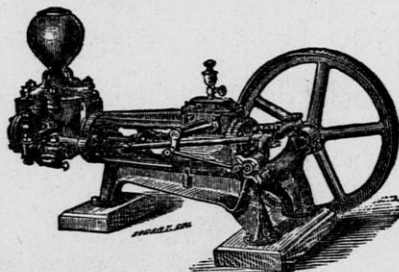
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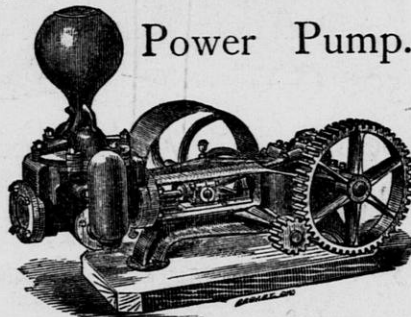


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" South—Pass— 4.37 A.M. Pass 5.35 P.M.

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.

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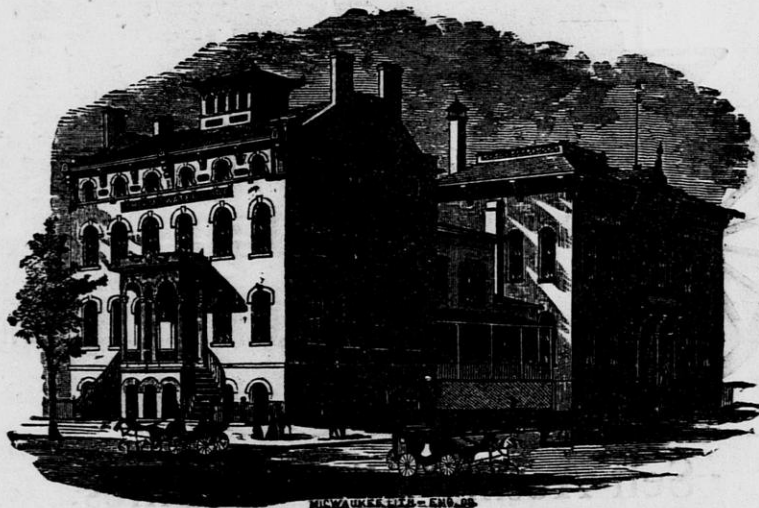
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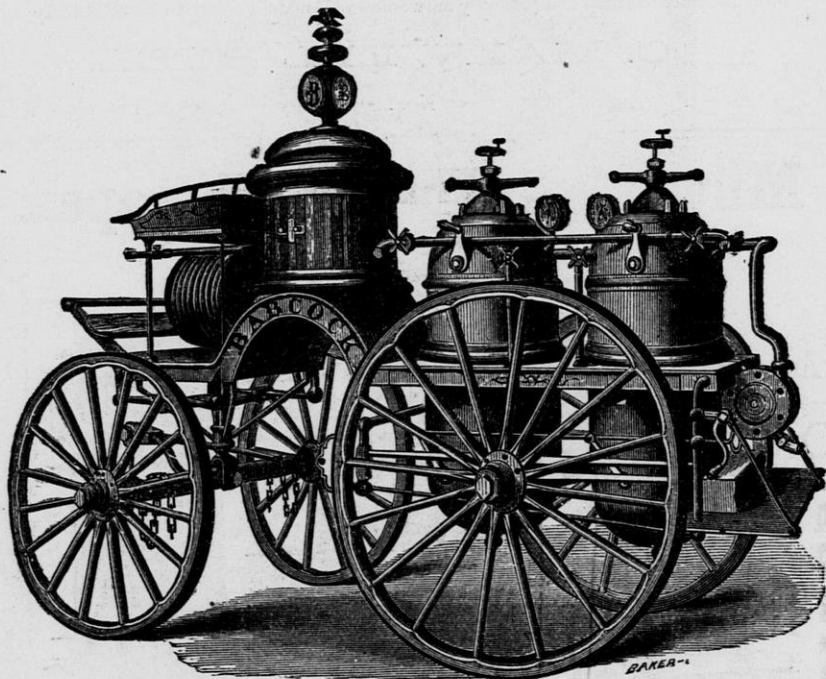
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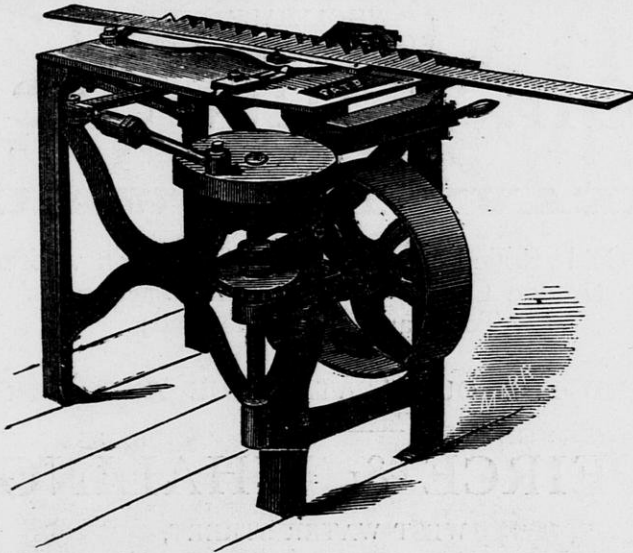
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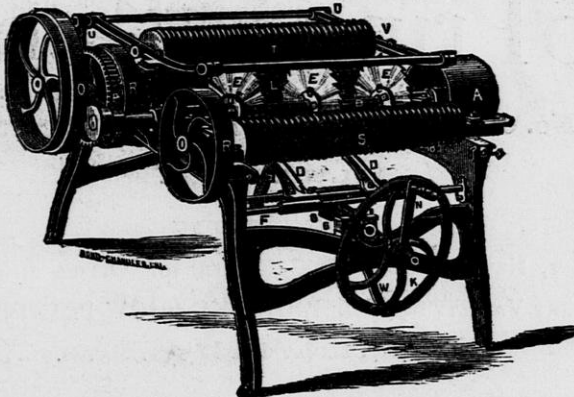
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SHINGLE and HEADING MACHINERY,



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Surfacers, Planers, and Matchers,
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CALDWELL'S PATENT PARALLEL GANG LUMBER EDGER,

2, 3, 4 or 5 Saws. Do not fail to send for Circulars of this Machine.

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EVERY VARIETY OF JOB, BOOK AND SHOW PRINTING
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Suited to the Lumbering Trade,

Consisting of, in part,

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Plug and Fine Cut Tobacco

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Packed in quantities to suit the demand of the camp.

DRIED FRUITS: Apples, Peaches, Cherries,
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NEW ORLEANS.

LUMBERMEN'S REGISTER.

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

GENERAL CLASSIFICATION.

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

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

WISCONSIN.

Upham Chas M & Bro m and d.....	Angelica	Cary Bros m and d.....	Auroraville
McCartney D m and d.....		Flower J H.....	Bangor
Oleson & Co m and d.....		Obrecht Christian d.....	Baraboo
Clinton McLaren & Co m and d.....		Bassett Wm P staves.....	
Hall A & Co m and d.....	Ahnapee	Pratt s m.....	
Brammer Henry & Co m and d.....		Baraboo Manufacturing Co.....	
Young D m and d.....		Wolcott W W sash, doors, etc.....	
Sawyer P m and d.....	Algoma	Bailey D R.....	Baldwin
Reynolds & Tibbetts m and d.....	Appleton	Ham Henry sash, doors etc.....	
Lederer B W sash doors etc.....		St. Louis & Wisconsin River Co.....	Barnum
Spaulding G W & Co staves.....		Woodford & Davis m and d.....	Barton
Whorton Bros m and d.....		R D Pike m and d.....	Bayfield
Rose & Heath.....		Townsend & Co, d Spring c Second.....	Beaver Dam
Door & Steele m and d.....		Gratiot E H d.....	Belmont
Yorker S J d.....	Arena	Gray James p m.....	Beloit
Goodrich J & Co logger.....	Augusta	Weed J H & Co d.....	
Ball J L d m.....		Peck S W d.....	
Stone J F & Son m and d.....		Talbot H G d.....	Berlin
Randall S logger.....		Cohn L S m and d.....	
Bowen E.....	Albany	Diamond & Co m and d.....	Big Lester Bay
Ashland Lumber Co m and d.....	Ashland	Bates Geo d.....	Black Earth
E Ingalls & Co m and d.....		Ward G S & Bro d.....	
White & Dunbar, sash, doors, etc.....		Hurlburt W D m and d.....	Black Brook
S S Vaughn m and d.....		Price W T logger.....	Black River Falls

Bright & Wither loggers.....	Black River Falls	Knapp, Stout & Co m and d (Menomonee), Dunnville	
Merrill L G m and d.....		Baker & Lee d.....	Elkhorn
Elliott A m and d.....		Larson & Olsen m and d.....	El Paso
Ice J logger.....		Eau Claire Lumber Co m and d.....	Eau Claire
Spaulding D J m and d.....		Rathbone N S logger.....	
Bump Mark logger.....		Rundle & Free sash doors etc.....	
Burchard Harrison logger.....		Wheaton Lumber & M'fg Co m and d.....	
Porter W B logger.....		Northwestern Lumber Co m and d.....	
Sawyer A E logger.....		Bangs & Fish p m.....	
Dickson John and James.....	Bloomington	Boyd A m and d.....	
Barron John.....	Blue Mills	Burdett, Preston & Co m and d.....	
Briggs & Barnes.....	Boaz	Estabrook W B m and d.....	Eau Claire
Bucker A.....	Buffalo	Ingram & Kennedy m and d.....	
Rouch & Erdling.....	Bonduel P O	Graham, White & Co m and d.....	
Somers W & Bro m and d.....		Pinkham J P m and d.....	
Schwahl & Somers m and d.....		Robson John m and d.....	
Nelson H & Co d.....	Boscobel	Daniel Shaw & Co m and d.....	
Weston, Miner & Co m and d (Necedah)...		Smith & Buffington m and d.....	
Pierce & Sly m and d.....	Branch	Tarrant E m and d.....	
Yorty J & Kripp d.....	Brandon	Wilcox & Co m and d.....	
Beach & Bishop d.....	Brillion	Carson & Rand m and d.....	Eau Galle
Bowen E d.....	Brodhead	Week John m and d.....	Eau Pleine
Thompson C O d.....		Hutchinson & Bro m and d.....	
Lamson C & Co d.....		Brown R R d.....	Edgerton
Usher & Hassinger d.....		Huntley & Co d.....	Elroy
Blake Francis W d.....	Burlington	Webster & Palmer m and d.....	Embarass
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 & Paik m and d.....	
Deniston C R d.....		Long, Henderson & Coe m and d.....	Fairchild
Staves J M d.....		Randall, Simeon d.....	Fall Creek Station
Neff D d.....	Calamine	Anderson C B d.....	Fall River
Bock Chas d.....	Calumet	Fifield E d.....	Evansville
Myers Jas d.....	Cambria	Johnson D & Co d.....	
Tisch Chas d.....	Carlton	Mack H & Bro m and d.....	Evanswood
Stephens Daniel B d.....	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.....	
Lefevre H.....		Griffith J Q & Son m and d.....	Fond du Lac
Lyon R C s m.....		Riley & Bosworth loggers.....	
Clark & Scott m and d.....		Hamilton I K & W C loggers.....	
Graves James m and d.....	Charlestown	Fond du Lac Mfg Co m and d.....	
Union Lumbering Co m and d.....	Chippewa Falls	Lewis & Steenberg sash doors etc.....	
Priest, Coburn & Co p m.....		McCourt E sash doors etc.....	
Withrow & McRea sash doors etc.....		McDonald & Stewart sash doors etc.....	
Marriet, La Beul & Co loggers.....		Parker N & Co d.....	
Vincent, Monclert & Co loggers.....		Stevely & 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.....	
Lamphear 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.....		Sextmith 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	Matthias F & O 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 & McKvay staves etc.....	
Marsh G S m and d.....		Bergtresser L m and d.....	Fremont
Ritchie James m and d.....		Brickley John m and d.....	
Monroe John m and d.....		Edwards J & Co m and d.....	Frenchville
Struthers Thomas sash doors etc.....		Sterna & Son staves.....	Galesville
Hiles G m and d.....	Dexterville	Freeman A W d.....	Genoa
Remington H W m and d.....		Arnold J m and d.....	Germantown
Worth C M & A R s m.....	De Soto	Natchway H.....	Gibson
Kinney Francis m and d.....	Durand	Olds & Lord m and d.....	Glenmond
Plummer & Morse m and d.....		Freeman O. & W. d.....	Genoa Junction
Hoard & Earl d.....	Doylestown	Stewart Bros d.....	Genesee

Arpen A logger.....	Grand Rapids	Nevins S L m and d.....	LaCrosse
Butler & Smith sash doors etc.....		Paul John m and d.....	
Edwards John & Co m and d.....		Polley W H logger.....	
Hertel Fred p m (Centalia).....		Root W C logger.....	
Trabern W C.....		Sill Wm R logger.....	
Arpen J logger.....		Vincent & Edwards d.....	
Byron F m and d.....		Washburne C C m and d.....	
Clark & Scott m and d.....		Weston R S m and d.....	
Meehan P & J m and d.....		Emery T B logger.....	
Neeves Geo & Son m and d.....		Goddard H logger.....	
Rat 'n John m and d.....		Hankerson A H logger.....	
Roe & Butterfield m and d.....		La Crosse Lumber Co m and d.....	
Scott 's B m and d.....	Grand Rapids	Mitchell A S p m.....	LaCrosse
Whipple T E s m.....		Ross Robert m and d.....	
Weed Lumoer Co m and d.....		Barron John m and d.....	Lafayette
Hickerson N H.....	Grantsburg	Robson John m and d.....	
Graves J A m and d.....	Gravesville	Sanford G P & Co d.....	Lavale
Modlin Henry.....		Leigh J m and d.....	Little River Mills
Earle & Case s m.....	Green Bay	Mikel John James m and d.....	Little Wolf
Willard Lamb m and d.....		Gardner & Co m and d.....	Little Suamico
McIntosh C E s m.....		Conn A C & Co m and d.....	
Lamb, Watson & Co m and d.....		Olsen Geo & Co.....	
Woodruff J W & Co m and d.....		Zelder L.....	Lomira
Holmes & Thompson m and d.....		Snow W H d.....	
Anton Burkhardt p m.....		Vaedsch & Runkle.....	Lowell
Klaus Anton m and d.....		Smith D F m and d.....	Luck
Marshall & Darling s m.....		McMillan A d.....	Lyndon
Herling Theo m and d.....	Green Bush	Elghmy Freeman d.....	Mc Farland
Sultz, Lewis & Henry m and d.....		Bunker & Vroman d.....	Madison
Schmidt Adam m and d.....	Harrisville	Sorenson & Frederickson p m.....	
Ewing Thos m and d.....	Hartford	Stein C R d.....	
Mills J D d.....	Hartland	Taylor C L staves.....	Maiden Rock
King P & Son d.....	Helena	Cooper & Jones.....	Manitowoc
Tripp N D d.....	Hillsborough	Woerfel E staves.....	
Fisher J.....	Horicon	Guyles & Pankratz d.....	
Briggs & Son m and d.....	Hortonville	Hubbard H F d.....	
Gowell, Logan & McMurdo m and d.....		Zander & Co p m.....	
Redout Bros sash doors etc.....		Klingholz Charles m and d.....	Manitowoc Rapids
Whitman & Morse m and d.....		Pierce Plinn.....	
Baldwin D A m and d.....	Hudson	Reune Chas m and d.....	Maple Works
Palmer H G & Co m and d.....		Brayton L J d.....	Marquette
White & Jones sash doors etc.....		Green J S d.....	
King G W logger.....	Humbird	Hamilton, Merryman Co m and d.....	Marinette
J Kablin pail and tub factory.....	Hurleyville	Tweedie & McMaster p m.....	
Roberts John d.....	Iron Ridge	Menominee Mfg Co m and d.....	
Blair J d.....	Janesville	Spaulding, Houghtaling & Johnson m and d.....	
Fifield, D K d.....		McCartney Wm m and d.....	
Lovejoy & Blount d.....		N Ludington Co m and d.....	
Jeffries David d.....		Whitbeck H Co m and d.....	
Schutt U d.....		Bartlett L H d.....	Marshall
Hitchcock & Reind d.....	Jefferson	Craig & Maroney sash doors etc.....	Mauston
Andrews F M & Co m and d.....	Jenny	King Walter staves.....	
Matthews Thos m and d.....		Webster C m and d.....	Maxville
Jewett A S & Sons m and d.....	Jewett's Mills	Bronson D W d.....	Mazo Manie
Sutherland Sol.....	Juda	Hewitt Henry, Jr logger.....	Menasha
Knapp J R d.....	Juneau	Mitchell, Watkie & Co sash doors etc.....	
Taber J B & Co.....	Kansasville	Potter & Dutchman m and d.....	
Backus N G d.....	Kenosha	Schneider & Ruth p m.....	
Harrison W M p m.....		Spaulding, Houghtaling & Johnson m and d.....	Menekaune
Head & Southerland d.....		Stephenson T & Co m and d.....	
Grant & Son, Market d.....		Kuapp, Stout & Co m and d.....	Menomonee
Truesdell Gideon, 3 Main d.....		Brand & Christmann m and d.....	Montpelier
Hitchcock & Mashek m and d.....	Kewaunee	Baldwin m.....	
Slauson, Grimmer & Co m and d.....		Bainbridge W.....	Mifflin
Stranky W m and d.....		Harker & Bainbridge.....	Mifflin
Dikeman & Lattimer s m.....		Greene N S & Co.....	Milford
Walker, Munger & Co sash doors etc.....	Kilbourn City	Brown & Evans m and d.....	Mills Centre
Britton C W m and d.....	Kinnelkinnic	Dunham L m and d.....	
Brook V logger.....	Knowlton	Lucas & Bro m and d.....	
Wallace & Redford m and d.....		Wight S s m.....	
Cloespeck M m and d.....	Kossuth	Greenman R J d.....	Milton Junction
Kellnor M m and d.....		Hutchinson James d.....	Mineral Point
Black River Improvement Co.....	LaCrosse	White S d.....	
Hogan & Chamberlain loggers.....		Weyhausen A m and d.....	Mishicot
McDonald Bros loggers.....		Williams J W saw mill.....	Monroe
Salzer G. J.....		Loos Charles d.....	Merrimack
Crosby W. W m and d.....		Dodge, Churchill & Co p m.....	
Coleman C L m and d.....		Dodge & Davenport d.....	
Gile & Holway m and d.....		Rood J L d.....	
Moorer R M logger.....		Dessert J R m and d.....	Mosinee
Bright & Withee m and d.....		Kronenwetter S m and d.....	
Lill & Fourer m and d.....		Garland J d.....	Muscoda
Hewett & Woods m and d.....		Bull & Bowers.....	Muskego Centre
Hixon & Withee m and d.....		Houghton Geo G & Co m and d.....	Milwaukee
A & D D McMillan loggers.....		Schroeder & Steinman, dealers.....	

Ernst Herzer, Planing mill.....	Milwaukee	Culver E d.....	Ontario
Wm. Willer, planing mill.....		Lovejoy & Richards d.....	Oregon
H. Jalass & Co., planing mill.....		Harris D d.....	Orfordville
Brockhaus & Bradley, planing mill.....		Johnson H & Co m and d.....	Omro
Nic. Schuh & Son, dealers.....		Morton, Arnold & Morton p m.....	
Rodway, Conway & Co, p m sash, drs, etc		Webster & Foster m and d.....	
Sanger, Rockwell & Co, sash, drs etc, p m		Wilson A m and d.....	
Engelmann, Babcock & Salling, m and d		Foster N C m and d.....	Owego
Ewing Thos K commission.....		Hall Chas s m.....	Onalaska
Weston Bros, manufacturer and dealer...		Hayden L D (La Crosse Wis).....	
Mayhew Bros d.....		Moore R M (La Crosse Wis).....	
Durr & Rugee d.....		Nichols Chas H & Co m and d.....	
Schmidt & Reichel d.....		Bradley C G m and d.....	Osceola
Judd T H & Co d.....		Stapels C H logger.....	
Comstock L & Co m and d.....		Dresser & Wilson m and d.....	
Chandler Walter S d.....		Talboys & Hanscome m and d.....	
Seyfried Martin d.....		Knapp L E m and d.....	Oskosh
Brembach Fred d.....		Neff A & Co p m.....	
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 M logger.....		Jenkins J & Co m and d.....	
Hay A S logger.....		Harris M m and d.....	
Clark S & Son logger.....		Osborn & Christenson s m.....	
Merrill L G m and d.....		Conlee Bro & Co m and d.....	
Austin G A & Co m and d.....	Neillsville	Lane C & W logger.....	
Gallaher L W sash doors etc.....		Gill & Son loggers.....	
Gile & Halloway m and d (La Crosse Wis)		Freeborn John logger.....	
Kellogg A S.....	Neshoto	Turner Bros contractors.....	
Cooper Jones & Co m and d (Two Rivers Wis)		Sturtevant & Son contractors.....	
Cooper, Myers & Co.....		Stevenson Chas logger.....	
Cooper & Jones.....		Danforth Joselah 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.....		Fulnely & McDonald logger.....	
Weston & Schofield, loggers.....		Eighme R P logger.....	
Boardman & Palmer m and d.....		Stevenson, Badgert & Co m and d.....	
King G W m and d.....		Williamson G M & Co p m.....	
Green A logger.....		Wetherby David logger.....	
Lindsley F D logger.....		McAllyster J P logger.....	
Putnam L & 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		James & Stille d.....	
doors etc.....		Lines, Libbey & Co p m.....	
Ketchum H m and d (Merrillan Wis)...		Morgan Bros m and d.....	
Jacobs E P m and d.....	New Richmond	Weed J H & Co m and d.....	
Johnson Bros m and d.....		Fraker J S s m.....	
Pierce & Son m and d.....		Spalding & Peck m and d.....	
Brown J & Co m and d.....	Northport	Campbell Wm & Sons m and d.....	
Wisconsin Mfg Co m and d.....		Libby D L & Co m and d.....	
Putnam & Blair sash doors etc.....	Oakfield	Regan, Cheney & Pratt m and d.....	
White J T & Co p m.....		Doe & Miller m and d.....	
Streeter J & A C & Co d.....	Oconomowoc	Ripley & Mad m and d.....	
Roll & Turnham p m and sash door etc		E. C. Kellogg logger.....	
Vilas G d.....		John A. Paige Pres Wolf River Broom Co.	
Woodruff Bros d.....		Durby & Curran s m.....	
Livemore & Co m and d.....	Ogdensburg	McMillan R. & Co m and d.....	
Brungest W m and d.....	Oconto	Sawyer P & Son m and d.....	
Flanders W B logger.....		Raine R N & Co m and d.....	
Goodrich T B logger.....		Reed L B & O B m and d.....	
Luby logger.....		Sheldon L P & Son m and d.....	
Orr, Newell & Co m and d.....		Laabs J & Co m and d.....	
Jacob Spies m and d.....		Buckstaff Bros & Chase m and d.....	
Leigh John m and d.....		Foster & Jones m and d.....	
Oconto Lumber Co m and d.....		Henderson & Wilson d.....	Palmyra
Comstock & Simpson m and d.....		Mitchell Bros d.....	
Holt, Balcom & King m and d.....		Gray A D m and d.....	Pepia
Pierce L M p m and sash doors etc.....		Peshitgo Co m and d.....	Peshitgo
Winslow, England & Co m and d.....		Fritzmann Henry d.....	Pewaukee
Loosey Chas d.....	O'Kee	Frisbee & Westover d.....	Pine River
Vanderpool & Clark d.....		Gratlot E H d.....	Platteville
Woodley Samuel d.....		Lovelson F m and d.....	Plum City

Bowman G M d.....	Plymouth	Stafford L R.....	Staffordville
Mc Graw E M & Co d.....		Bailey D C logger.....	Stevens' Point
Wentworth, McGregor & Co d.....	Portage City	Blake & Mitchell loggers.....	
Carnegie A p m.....		Benson P & Bro loggers.....	
Lyon D B & Son d.....		Burns, Thompson & Co m and d.....	
Neavel & Davis d.....	Potosi	Boynton N m and d.....	
Schneider Joseph d.....		Brown E D m and d.....	
Jamison Hugh d.....	Poynett	Bean T G & Son m and d.....	
Reynolds & Lenfeldt p m.....	Prairie du Chien	Campbell P logger.....	
Smith & Foster m and d.....		Homestead Seth logger.....	
Weston T & Co m and d (Necedah).....	Prairie du Sac	Gilchrist A B logger.....	
Meacham & Bro p m.....	Prescott	Goodhue Geo J, Jr logger.....	
Green G d.....	Princeton	Hungerford Seely logger.....	
Gillon N.....	Pine Grove	Hutchinson & Bro m and d (Eau Claire).....	
Glawe O.....		Hubbard — shingles.....	
Bruce, Fuller & Co.....	Rock Falls	Karner S H m and d.....	
Garland & Nichols.....		Knox Bros m and d.....	
Peck S B & Son d.....	Racine	Meehan Bros m and d (Linwood).....	
Driver Thos p m.....		McDill T & Bro m and d.....	
Kelly, Murray & Co d.....		McMillan & Sons m and d.....	
Kensie W D & Co sash doors etc.....		Moe Louis I logger.....	
Miner E B & Co sash door etc.....		Lester & Plummer m and d.....	
Stawson Jas R & Co d.....		Park G L logger.....	
Ileley & 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.....	
Learmouth 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	Welch Adam logger.....	
Shirland & Co s m.....	Robinson	O C Wheelock logger.....	
Pease D G m and d.....	Rockbridge	Callahan Chas logger.....	
Hawn Charles m and d.....	Rock Elm	Redfield John logger.....	
Pedrick M d.....		Isherwood J & H logger.....	
Bowman Na m and d.....	Roundhill	Johnson J O logger.....	
Moore J P & Co d.....	Royalton	Martin John R logger.....	
Judd, Walker & Co m and d.....	Saint Croix	Clark Owen m and d.....	
Roberts George m and d.....	Sandy Bay	Cooper B F m and d.....	
Halasz Chas d.....	Sauk City	Cronkrite, Plummer & Co m and d.....	
Obrecht C d.....		Clements D R logger.....	
Cowles H K & Bro m and d.....	Scott	Cook Cornelius logger.....	
Girard & Co m and d.....	Seneca, Wood Co	Curran H & J D loggers.....	
Campbell Y d.....	Sharon	Severson S H d.....	Stoughton
Daniels G d.....		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.....	Sherman
Asa Hicks logger.....		Gray J m and d.....	
H E Howe, logger.....		Klaus & Wright m and d.....	Suamico
C. Crowley logger.....		Bruce J & Co.....	
C W Upham logger.....		Cook & Sons.....	
Hockner A d.....	Sheboygan	Trumble M E & Co m and d.....	
Thompson & Schroeder d.....		Gray O m and d.....	
Winters M d.....		Lamb, Watson & Co m and d.....	
Weeks A L d.....		Marshall & Co.....	
Haseltine C P m and d.....	Sherman	Weed A & Co m and d.....	
Kelly W P & Co m and d.....		Howard John D m and d.....	Superior
Bishop Bros staves and m and d.....	Sherwood	Peylon H M & Co m and d.....	
Nugent & Collins m and d.....		Angell W H & Son d.....	Sun Prairie
J. H. Parks logger.....	Shiocton	Eldred Anson m and d.....	Stiles
Mason, Barnes & Co m and d.....		Zimmermann W d.....	Theinsville
W. D. Jordan m and d.....		Huet John.....	Trim Bell
Harriman Samuel m and d.....	Somerset	De Coursey M m and d.....	Trap River
Irwin O L, Maple d.....	Sparta	Gleason & Squires m and d.....	Tomah
Holden G B d.....		Warren & Gamble m and d.....	
Setson Bros p m.....		Barrett J M d.....	Trempealeau
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
Seeley & 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.....	

Whitney & Darling d.....	Waldo	Leahy Capt J logger.....	Wausau
Cooley C F & Co m and d.....	Waubeka	Lawrence & Peters loggers.....	
Howlett & Co p m.....	Waupaca	Manson Rufus m and d.....	
Payne & Co m and d.....		McCrosen Jas logger.....	
Smith & Foster.....	Wauzeka	Plummer B G m and d.....	
Lewellen & Lunn.....	Waterloo	Single Ben m and d.....	
Squires & Sheldon.....		Single Jas m and d.....	
Hamlin J H & Co d.....		Stewart A & J m and d.....	
Streeter J & A C & Co W Water d.....		Wenhime & Kickbush loggers.....	
Hammond Alfred.....	Waukechon	Zastrow Ed logger.....	
Semple A.....		Enderby & Austin staves.....	Wellington
Semple F.....		McQueen, Davis & Co d.....	Werner
Morse O A d.....	Waupun	Shell Bros d.....	West Salem
Hollendyke N d.....		Littlejohn A M d.....	
Richardson Sias d.....	Waukesha	Weed, Gummaer & Co m and d.....	Weyanwega
Kimball R N p m and s m.....		Nutt M E & Phillips s m.....	Winneconne
Dodd Sam'l p m.....		Ingersoll, Riesing & Co m and d.....	
Hartwell C M s, sh doors etc.....		Jones, Wellington & Co m and d.....	
Andrews & Parcher m and d.....	Wausau	McArthur & Co m and d.....	
Callon John T m and d.....		Starks, Stickles & Co p m.....	
Callon Wm m and d.....		Schultz C.....	Woodland
Ancut & Callon m and d.....	Wausau	Day C & Co m and d.....	Wrightstown
Allen Henry.....		George V. Brill p m.....	
Bernhard & Simpson loggers.....		McKesson staves.....	
Clarke J C m and d.....		Converse H.....	Wyocena
Clark T W logger.....		Wells & Craig.....	
Cohn & Curran m and d.....		King P & Sons d.....	Wyoming
Daniels H s m.....		McCutchen H d.....	
Miller Hermann logger.....		Haverson & Peterson m and d.....	Yankee town
Kickbush & Bro loggers.....		Twing A.....	

MICHIGAN.

Hoxie L S m and d.....	Acme	Au Sable Lumber and Shingle Co m and d.....	Au Sable
Headley John.....	Ada	Backus & Bros m and d (Detroit).....	
Raker D M d.....	Adrian	Charles Stone Timber Co (Detroit).....	
Berry James m and d.....		Colwell Smith & Langstaff m and d.....	
Maxwell A & Co p m.....		Glennie J W m and d.....	
Wright Peter m and d.....	Alamo	McDonald D A.....	
Cosad & McGregor.....	Albion	Moore Alger & Co m and d (Detroit).....	
Haynes & Beard m and d.....	Alcona	Moore & Tanner.....	
Folkerts F C & Co m and d.....	Algonac	Vaughan S.....	
Smith A & S S m and d.....	Allegan	Richardson J C m and d.....	Auster City
Allegan Mfg. Co p m.....		Wilson H D s m.....	Auster City
Bass R.....		Hawley A M.....	Averill's Station
West NB sash doors etc.....		Miller A & G m and d.....	
Roberts Richard m and d.....	Allendale	Steele C s m.....	
German & Dewey m and d.....	Allens	Kroetzer G & Co p m.....	Bainbridge
Wright Ira.....		Habcock Surret & Co m and d.....	Baltimore
Winchester & Parish staves.....		Crutcher G W m and d.....	
Pierce Hall & Ward m and d.....	Alma	Childs E J sash doors etc.....	Bangor Van Buren Co
Wise & Co sash doors etc.....	Almena	Coombs & Smiley m and d.....	
Farnum Rufus K m and d.....	Almont	Green & Thompson m and d.....	
Bewick Comstock & Co m and d.....	Alpena	Nyman J H m and d.....	
Campbell Potter & Co m and d.....		Moore Smith & Co m and d.....	Banks Bay Co
Davis D G & Co s m.....		Taylor & Moulthrop m and d.....	
Doane Bingham & Co sash doors etc.....		Keystone Lumber Co m and d.....	
Fletcher A F & Co m and d.....		Bendry James m and d.....	Baraga
Folkerts & Butterfield m and d.....		Buck Hoyt & Co p n.....	Battle Creek
Gilchrist Frank m and d.....		Dwinell Pettee & Edwards sash doors.....	
Hough Hillard & Co m and d.....		Ellison H H & Co d.....	
Mason Luce & Co m and d.....		Halbert & Knight sash doors etc.....	
Minor J S & Co shingles.....		Leggett S L p m.....	
Morse H K.....		Mason Rathbun & Simmons d.....	
Prentiss Geo & Co m and d.....		Avery Murphy & Co m and d.....	Bay City
Richardson Avery & Co m and d.....		Ames Bros m and d.....	
Richardson Arthur R.....		Archibald & Bradley m and d.....	
Richardson Chas W.....		Bradley H M & Co m and d.....	
Richardson Geo.....		Bradley N B & Co m and d.....	
Spratt Aug.....		Carney H J commission.....	
Cummings Geo W s and m.....	Arnsden	Carney T sash doors etc.....	
Ferdon John & Son d.....	Ann Arbor	Carrier John & Co m and d.....	
Krapp Conrad d.....		Chapin & Barber m and d.....	
Wright J S m and d.....	Antrim	Chapman G P & B.....	
Battershall L A m and d.....	Arcade	Doleon Chapin & Co m and d.....	
Jackman J F m and d.....	Armada	DeWitt Jas N m and d.....	
Miller Caleb & Sons m and d.....		Eddy Avery & Co m and d.....	
Battershall L A m and d (Arcade).....	Attica	Folsom & Arnold m and d.....	
Darwood & Daley m and d.....		Gardner F F & Son.....	
Jenness J N & Co m and d.....		Gates & Fay m and d.....	
Williams W m and d.....		Haiser F & A.....	
Bracy & Clark p m.....	Augusta	Hay Butman & Co m and d.....	
Davis Wilson m and d.....	Aurelius	Hitchcock & Ingraham m and d.....	
Davis B G & Co m and d.....		Miller Albert 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 & Crinage m and d.....	Congdon & Colton m and d.....Carson City
Ramedell James.....	Lacy John G sash doors etc.....
Richards Miller & Co m and d.....	LaDue & Young m and d.....
Rouse J M m and d.....	Crawford Frank m and d.....Caseville
Rust A & Co m and d.....	Barber W L.....Cedar Springs
Rust Hay & Co.....	Beckhart Jacob p m.....
Sage H W & Co m and d (New York city).....	Benedict J O & E R s m.....
Sanford J S p m.....	Graham C & Co m and d.....
Shearer James & Co m and d.....	Grosvenor E m and d.....
Stevens & 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.....
Whithauer Schuerman & Co.....	Merritt & Co p m.....
Whipple Parmely & Co m and d.....	Smith J W H & Co m and d.....
Watrous Bros & Co m and d.....	Hurd & Smith m and d.....Cheboygan
Watrous M & Sons m and d.....	McArthur Smith & Co m and d.....
Hopkins Bros & Wise m and d.....Bear Lake	Mattoon S A m and d.....
Anderson D H & Co m and d.....Bear Lake Mills	Nelson Strahn & Co m and d.....
Wilson Lather & Wilson m and d.....Belding P O	Prentice Geo H m and d (Detroit).....
Davey W & Co d.....Bellevue	Smith David m and d.....
Hull Bros p m.....	Smith Thompson m and d.....
Smith A A & Co m and d.....Bell River	Smith E & V s m.....
Remick E & Co m and d.....Benona	Vorce Barker & Co m and d.....
Williams H m and d.....Benton Harbor	Weller J B & Co m and d.....
Cave L W m and d.....Benzonia	Goodale J C m and d.....Chesaning
Fitch & Phelps m and d.....Big Rapids	Nason R H & Co m and d.....
Green L H m and d.....	Garton & Davenport m and d.....Chester
Ives S m and d.....	Cobb J W m and d.....Clam Lake
Monroe Bros & 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	McLane & Frith d.....
Wiley, Lane & Co staves.....	Sweet G C m and d.....Columbia
Anable T C m and d.....Bloomington	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	Backait Geo m and d.....Croton
Brown Sarah D m and d.....Breedsville	Collins David m and d.....
Parley Putnam & Son m and d.Bridgman Laketon P	Higbee Nelson m and d.....
Weed B staves.....	Rice W 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 Saginaw
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.....	
Dubols 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.....	
Klien Martin d.....		Jones Chester B m and d.....	
Linsey & Co m.....		Lee Charles m and d.....	
Loud Gay & Co m and d.....		Mc Cormick A W.....	
Lyon Isaac L d.....		Mc Dougall R B.....	
Nason Chas E d.....		Lathrop, Incho & Co m and d.....	
Merrill & Palmer m and d.....		Marks & Flitz.....	
Moffat Hugh m and d.....		Merrill Chas & Co m and d.....	
Moore Chas F d.....		Mitchell & Roland Lumber Co m and d (Cincinnati).....	
Moore Frank d.....		Oneida Lumber Co m and d.....	
Moore F & S d.....		Ortman Chas L m and d.....	
Moore & Alger m and d.....		Owens & Brewer m and d.....	
Oakes Wm d.....		Rose D F & Co m and d.....	
Osborne C F & Co d.....		Rust J F & Co m and d.....	
Perley J H d.....		Saylor T & Co m and d.....	
Pitts & Cranage m and d (Bay City).....		Sears & Holland m and d.....	
Prentice Geo H m and d.....		Ten Eyck C E s m.....	
Ramm & Co sash doors etc.....		Terry 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.....	
Skillings & Whitney Bros m and d.....		Yawkey, Wideman & Co m and d.....	
Standish J R pine lands.....		Adams, Jolley & Co m and d.....	East Tawas
Steele A M d.....		Bliss & Pierce m and d.....	
Tegeler Chas sash doors etc.....		Grant W G & Son m and d (N Y city).....	
Turner Robert sash doors etc.....		Smith H P & Sons m and d.....	
Warriner W d.....		Staats & 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 d.....	
Wight H A & S G m and d.....		Stevens C W staves.....	
Williams, Osborne & Co m and d and p m.....		Hipp B W.....	Eau Claire
Wood W H & Co sash doors etc.....		Anderson J H m and d.....	Edgerton
Holmes Geo m and d.....	De Witt	Becker G m and d.....	
Copeland R P.....	Dexter	Bradfield E m and d (Ada).....	
Pratt Geo.....		Cain James m and d.....	
Gray Thos m and d.....	Douglas	Cook & Scarvel s m.....	
Judd W sash doors etc.....	Dowagiac	House Oscar m and d.....	
Sill Benj. D & Son m and d.....		Kidder M O m and d.....	
Starett C p m.....		Monroe & Jones m and d.....	
Darwood & Daily m and d.....	Dryden	Porter D m and d (Rockford).....	
Mears C m and d (Chicago).....	Duck Lake	Porter Seth s m.....	
Hall, Ward & Brewer m and d staves.....	Dundee	Truax Jas H s m.....	
Hunt, Wheeler & Co sash doors etc.....		Dexter & Noble m and d (Chicago).....	Elk Rapids
Morse Nathan m and d.....		Blair E W p m.....	Elsie
Stowell J A m and d.....		Leach & Ramsey m and d.....	
Kellogg & Sawyer m and d.....	Dunningsville	Mc Quinton Robt m and d.....	
McCrumb Geo W m and d.....	Eagle	Moore J B m and d.....	
Mitchell & Mahan m and d.....	East Bay	Butler & Gallagher m and d.....	Emmett Station
Bushnell John m and d.....	East Leroy	Herman & Son m and d.....	Erie
Quick, Fish & Andrews m and d.....		Whittington W & D E m and d.....	
Eastman Galen m and d (Grand Haven).....	Eastmanville	Glaser Emil p m.....	Escanaba
Heffernan 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, Slaught & Co m and d.....	
(Chicago).....	Ferrysburg
Slatt & Co m and d.....	
White, Glover & Co m and d.....	
Bailey 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.....	
Begole, 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.....	
Eddy 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.....	
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 & Emlay.....	
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 C m and d.....	
Crossette Graves & Co m and d.....	
Cutcheon L M.....	
Cutler Robt.....	
DeGraaf Vrieling & Co sash doors etc.....	
Farrin & Co.....	Grand Rapids
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 lath mill (Chicago).....	
Nichols & Co p m.....	
Norton A F & Co.....	
Pardee 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 & Buchman 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.....	
Pardee 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 & Groom 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.....	Hilledale
Ferris R B m and d.....	Holland
Vanderveer E & Co staves and shingle mill.....	
Buzzell Bros sash doors etc.....	Holly
David Robt A m and d.....	Hopkins
Hillard L m and d.....	
Chubb J F s m.....	Howard City
Lord & Kipp 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.....	
Webber Bros m and d.....	
Bennett & Woods.....	Jackson
Brooks C F d (Detroit).....	
Baxter & Selfridge p m.....	Jonesville
Rixby 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.....	
Briggs 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	Seranton J P	
Dodge C T m and d		Shaub Phillip	
Hemingway C M & Co p m		Terry M G	
Johnston Alex m and d		Dowling H P & Co p m	Montague
King Robt m and d		Ferry Dowling & Co m and d	
Millis J D & Son		White F H & Co m and d	
Peters F J s m		Weston Bros m and d	
Stevens Currier & Townsend m and d		Moore & Ferguson m and d	Monterey
Walker Bros m and d		Cook Pendleton & Jones s m	Morley
Powell Hauck & Bro m and d	Lawton	Cummer J & Son m and d	
Fray H P staves	Leslie	Gerrish E W	
Grout V H p m		Hugh W p m	
Russell S O		Fowle Benj m and d	Moscow
Moss Mills & Galge m and d	Lexington	Crittenden Chas d	Mt. Clemens
Nims Tewksbury & Co m and d		Hall & Shook m and d	
Woods J L m and d		Snook Bush & Mosier m and d	
French Wyman & Co m and d	Lockwood	Snook T W staves	
King Quick & Co m and d	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 Huntoon & 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 & Whitman m and d	
Cushman Calkins & Co m and d (Chicago)		Willett A M & J W p m	Muskegon
Dennett & Dunham m and d		Allen A M m and d	
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		Eiston Robt sp	
Pageot & Thorsen m and d (Strouach Lumber Co)		Gluc W & Co m and d	
Peters R G & Co m and d		Hall S O	
Keltz 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 & Huennelkins 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	Manton	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)	
Silvernail & Trumbull m and d		Sandford S R	
Decker Chas m and d	Marion	Storrs & McDougal m and d	
Stevenson W M m and d		Torrent Esau m and d	
Alexander M J m and d	Marshall	Torrent John m and d	
Church Nelson m and d		Torrent & Arms m and d	
Bunce H E m and d	Marysville	Truesdell Gilton m and d	
Mills N & B m and d		White Smith & Swan m and d (Chicago)	
Sanborn W m and d		Wilcox T B & Co m and d (Chicago)	
Darrow & Walker m and d	Mason	Wilson & Boyce m and d	Nashville
Huntington J L & C D m and d		Kirtland & Son staves	
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	Menardi A E m and d	Nortonville
Mansfield J & Co m and d		Bently W m and d	North Branch
Bagley & Copps p m	Menomonee	Moyer A m and d	
Paison A p m		Lawrence Sidney m and d	Nunien
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
Lindsey & 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 and d.....	Otsego	Hardin & Bacoock p m.....	
Ballou & Co sash doors etc.....	Otsego	Heather & Allison m and d.....	
Leighton S m and d.....	Otter Lake	Jerome T & Co.....	
Benson C B m and d.....	Ovid	Ketchum D B s m.....	
Frisbie A H m and d.....	Owosso	Nester Bros.....	
Sowers Geo D & Co m and d.....	Palmyra	Newton & Smith.....	
Robinson & Miller p m.....	Pavilion	Payne A B & Co m and d.....	
Woodward L E.....	Paw Paw	Potts & Prieur.....	
Freeman G W & Co m and d.....	Pentwater	Rust Amasa.....	
Bathwick & Stevens m and d.....	Perrinsville	Rust Eaton & Co.....	
Sager John m and d.....	Perry	Rust & Hay.....	
Everett J C sash doors etc.....	Pewamc	Sturtevant, Green & Co m and d.....	
Freeman & Stinson m and d.....	Pierson	Swift & Lockwood m and d.....	
Brown S A & Co m and d.....	Pierson	Williams Geo F & Co m and d.....	
Nickerson & Calester m and d.....	Pine Plains	Wright, Tipton & Co m and d and p m.....	
Sands & Maxwell s m.....	Pine River	Wright & Wetherell m and d.....	
Stringer Frank m and d.....	Pittsford	Willie Bros s m.....	
Huckley John m and d.....	Plainfield Kent Co	Bentley H J m and d.....	St Charles
Woodworth W H m and d.....	Plainsfield Livingston Co	Campbell D J.....	
Cone & Cutter m and d.....	Plymouth	Freeman & Co.....	
McConnell W & Sons m and d.....	Pontiac	Green D W.....	St. Charles
Pangham & Borden m and d.....	Port Austin	Kimberley C S.....	
Quincy & Bromley s m.....	Port Crescent	Guerney Chas.....	St Claire
Stone & Seeley m and d.....	Port Huron	Jenks B W.....	
Taylor & McMullen m and d (Wood Lake).....	Port Sanilac	Few T & F.....	St Joseph
Walter & Bro m and d.....	Prentiss Bay	Holcomb & Evans m and d.....	
Wensel & Bro s m.....	Quimby	Brooks & Adams m and d (Detroit).....	St Louis
Keeler S S & Co m and d.....	Quincy	Laderach Bros m and d.....	Salzburg
Adams F E & Co m and d.....	Ridgeway	Malone & Gardiner m and d.....	
Clements S N m and d.....	Riga	Root Bros s m.....	
Everest & Wise m and d.....	Rock Falls	Smith C M & Co m and d.....	
Paris P G m and d.....	Rockford	Thompson W m and d.....	Sand Creek
Paris S A m and d.....	Rogers City	Avery O W m and d.....	Sand Lake
Lantz John m and d.....	Romeo	Baird & Farnum s m.....	
Wood & Maxon m and d.....	Saginaw City	Beaver, Miller & Co m and d (Ft Wayne Ind).....	
Richardson J C m and d.....		Carr J M m and d (Union City Ind).....	
Topping M & Sons m and d.....		Dickinson Jerome m and d.....	
and staves.....		Hafley P s m.....	
Bennett C H.....		Hart M & S m and d.....	
Burnett C H.....		Heilner Geo W s m.....	
Bunce Z W & Son m and d.....		Pangborn & Borden s m.....	
Fish A & H m and d.....		Roberts & Driggs m and d (Grand Rapids)	
Harrington D B m and d.....		Stone & Seeley m and d.....	
Haynes J m and d.....		Twichell C R.....	
Hibbard W B & Co m and d.....		Ware E & Co.....	
Howard & Son m and d.....		Wilkins W L m and d.....	
Jenkinson W staves.....		Mercer & Slater m and d.....	Saranac
Johnston John & Co m and d.....		Moffat A J m and d.....	
Sanborn & Co m and d.....		Moore H D m and d.....	Saugatuck
Skinner T S m and d.....		The Saugatuck Lumber Co m and d.....	
Skinner & Ames m and d.....		Abbott Chas m and d.....	Scio Township
Wells F L.....		Bathwick & Stephens m and d.....	Scott
Bergen P P staves.....	Portland	Collingham J m and d.....	Sebewa
Bowser, Griffin & Co sash doors etc.....		Friend J m and d.....	
Dilley J staves.....		Ambruster & Weimer m and d.....	Sebewaing
Erskine E J m and d.....	Port Sanilac	Dunn J & Sons m and d.....	Seville
Thompson T & J S m and d.....		Blanchard J C & Co m and d.....	Sheridan
Prentiss Geo H m and d (Detroit).....	Prentiss Bay	Fargo D F & Co m and d.....	
Quimby J L m and d.....	Quimby	Stearns J D m and d.....	Smyrna
Alden, Sutton & Co staves.....	Quincy	Beckwith & Co.....	South Bay City
Hawley Martin.....		Braddock A C & Co p m.....	
Wilbur R W m and d.....		Dunham & Whipple.....	
Exelby Jesse m and d.....	Ridgeway	Miller A & Co m and d.....	
Fritz F m and d.....	Riga	Stevens A & Co m and d.....	
Pack, Jenks & Co m and d.....	Rock Falls	Watrous Bros & Co s m.....	
French Geo m and d.....	Rockford	Watrous M & Son m and d.....	
Porter Dennis m and d.....		Byer G W & Co m and d.....	South Haven
Mollitor A & Co m and d.....	Rogers City	Wilson S P m and d.....	
Ayer A B m and d.....	Romeo	Ann Arbor Lumber Co m and d.....	South Saginaw
Andre Alex.....	Saginaw City	Briggs & Co s m.....	
Arnold & Fulson (Albany N Y).....		Bundy & Martindale s m.....	
Barnard & Binder m and d.....		Bundy & Yeoman m and d.....	
Blanchard C N m and d.....		Curtis & Eastbrook m and d.....	
Burnham, Still & Co.....		Boice & Kearny m and d.....	Spring Lake
Butman Myron.....		Cutler & Savidge m and d.....	
Butman & Rust.....		Marada & Maxwell m and d.....	
Chapin A B & Bro.....		Monroe Boyce & Co m and d.....	
		Sisson & Seymour m and d.....	
		Cross, Wright & Co m and d.....	Standish
		Bennett J E m and d.....	Stanton
		Bock Wm m and d.....	

Burham & Wales s m.....Stanton
 Case G F s m.....
 Gardner D M s m.....
 Gilbert A m and d.....
 Stevens W H m and d.....
 Turner Bros & Co s m.....
 Wells & Patchin s m.....
 Withey & Buckaloo m and d.....
 Wood & Gilbert m and d.....
 Francisco & 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 Myren 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
 Crosse & 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.....

Heartt Wm A m and d.....Wahjameja
 Goodrich Enos m and d.....Watertown
 Sutherland J m and d.....Watervleit
 Curtis & Walker m and d.....Wayne
 Arnold & Catlin p m.....Wenona
 Litchfield E C m and d (New York City).....
 Sage H W & Co m and d (New York City).....
 Hetfield & Ruter 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 & Rickard m and d.....
 Wixom & Sibley m and d.....Wixom
 White B m and d.....Woodbridge
 Taylor & McMullen m and d.....Wood Lake
 Shafter David G m and d.....Worth P O
 Fullmore & Scovill m and d.....Ypsilant
 Parsons Bros d.....
 Burt W R & Co m and d.....Zilwaukee
 Bliss A T & Bros m and d.....
 New York & Michigan Lumber Co.....
 Rust Eaton & Co m and d.....

CHICAGO.

Adams & Lord, d 368 Lumber street.....Chicago
 Allen & Bartlett d Ladin 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 & Slight d Throop st cor 22d.....
 Bateson Alex d 347 Archer av.....
 Beidler J & Bro d Loomis cor 22d.....
 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 732 Clark st.....
 Burdick & Mead W 22d cor Blue Island av.....
 Bush & Hill m and d 242 S Water st.....
 Bushnell, Walworth & Reed m and d 562 Lumber st.....
 Calkins & Fisher d 213 Archer av.....
 Chapin & Foss d 214 S Canal st.....
 Charnley Bros & Co m and d 238 S Water st.....
 Chicago Lumber Co m and d 242 S Water st.....
 Crumb Bros d Division cor Elston av.....
 Chase & Pate d 511 Archer av.....
 Clark Saml D d 70 LaSalle st.....
 Combs Park & Co 22d st cor May.....
 Curtis & Skinner d 96 N Canal st.....
 Cutler Savage & Co m and d 236 S Water st.....
 Davis & Mason m and d 236 S Water st.....
 Davis & Murray d 451 Archer av.....
 Dean Bros d Fisk s of 22d.....
 Derickson & Sons d Laffin cor W 22d.....
 Dodge E J & Bro d 111 W 12th.....
 Driscoll P F d Halsted.....
 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 381 Lumber.....
 Esroger B Beach and Canal.....
 Fauntleroy & Co d 22d s e cor Morgan.....
 Ferry & Bro m and d w end 18th st bridge

Fisher C C d 514 Lumber.....Chicago
 Foster Thos d 15 W 22d.....
 Fisher John & Sons d Robert w end of Huron.....
 Ford River Lumber Co m and d office 242 S Water yard W Throop s of 22d.....
 Fox & Howard d Ashland av cor Hickory.....
 Franz L & Son d 24th n e cor Butler.....
 Garden City Mfg Co d 22d cor Morgan.....
 Gardiner John D & Co m and d 520 Lumber.....
 Gifford Kuddock & Co m and d room 7, 242 S Water.....
 Goss & Phillips Mfg Co m and d Clark s w cor 12th.....
 Goldie W 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 Laffin.....

Johnson A B d 148 Kingsbury.....Chicago	Shoemaker & Howell d Throop N 22d.....Chicago
Kelley Wood & Co 22d s e cor Center av.....	Soper Brainard & Co d Polk cor Beach.....
Ketchum Stephens & Co d 258 Sherman.....	South Branch Lumber Co d 22d cor Loomis
Learned S J d Center av s of 22d.....	Starrett & Bro d W 12th s w cor Lumber...
Long J Henry d 904 S Halsted.....	Stephens & Clarke Archer av cor Quarry...
Loomis & Davis d 394 Fifth av and Fisk...	Stevens Plowdon d 924 S Halsted.....
Leveland R A & Co d Lumber cor of 22d...	Street & Chatfield d Rocket w end of Huron
Loveland & Spencer d 221 cor Lumber.....	Terry & Bro d w end 18th st bridge.....
Lowell & Barker d foot of Fisk.....	The B L Anderson Co m and d Fisk cor 22d
LUDINGTON WELLS & VAN SCHAICK m and d	The Kirby Carpenter Co m and d Loomis nr
offices 244 S Water, yards Loomis N 22d and	22d.....
I O R.....	Thompson H & Co d Quarry bet Archer av
McLaren d cor Franklin and S Water.....	and the river.....
McDonald & Roe d Taylor s w cor Sher-	Truesdell Gideon Room 6 242 S Water.....
man.....	Turner E H & J S d 84 and 86 Lumber.....
McMullen & Officer d Throop s w cor	Waldo John d 120 N Canal.....
Lumber.....	Waldo Waters & Co d 7 N Canal.....
Martin S K d 438 Lumber.....	Walkup & Neebes d 361 Lumber.....
Mears Bates & Co m and d 82 Beach.....	Washburn Edgar d 195 18th.....
Mears C & Co m and d 58 Kingsbury.....	Weed A & Co W Chicago av.....
Mendon & Winter d Throop s of 22d.....	Wilce Stephens & Co p m 22d and Throop
Menominee River Lumber Co m and d office	White Swan & Co m and d 252 S Water...
200 S Water.....	Whitbeck H Company m and d 257 W 22d
Merrill & Skeele d 345 Lumber.....	head of Fisk.....
Meyer C J L d 25 W Ohio.....	Whitcomb R S d 714 W Washington.....
Minard Ira & Co d Loomis N 22d.....	Wheelock Sylvester d foot of Fisk.....
Muro Robbins & Co d W 12th cor Lumber...	White Geo E d 122 N Sangamon.....
Nelson Bros d Grove n w cor 22d.....	White Joseph d 126 N Union.....
N Ludington Co m and d office 242 S Water	White Rowell & Co d 34 W Chicago av.....
Noble & Little d Canal n w cor Carroll av...	Wolf Kauf & Essroger d Sebor bet Canal and
Norris Lumber Co d 165 W 22d.....	Beach.....
North Branch Lumber Co d 40 Front.....	Woodruff W N & J F d Grove foot of 19th...
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.....	
Pestigo 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 22d cor Loomis.....	
Porter & Co m and d Room 1, 261 Randolph	
Porter & Fuller d 140 Beach.....	
Neal Robt F & Co d Throop s of T22d.....	
Richards Norris & Co d W 22d cor Ladin...	
Rietz Chas & Bro d 27 N Canal.....	
Roberts & Hull m and d 243 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 193 LaSalle.....	
Schulenburg & Boeckler m and d Main	
cor Cologne.....	
Spalding Jesse m and d 250 S Water.....	
Sheriffs John & Son d Beach cor Taylor....	

COMMISSION.

Barker Cyrus A 252 S Water.....
Bell Robt L Room 2, 252 S Water.....
Bickford R K & Co 248 S Water.....
Blanchard Boriand & 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 & Aarhaus 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	Goodsill & Bro d.....Bedford
Carton & Co d.....Ackley	McConville H & Co.....Belle Plaine
Rath John d.....	Henry Jas P d.....
Beymer G W d.....Afton	Lamb & Son m and d (Clinton Ia).....
Farnsworth D (hardwood saw mill).....Agency City	Wilson J D d, agent.....
Parkinson B d.....Ainsworth	Brown M R m and d.....Bellevue
Gilbert, Hedge & Co d (Burlington Ia).....Albia	Strasser & Schleck p m and d.....
Patton U L d.....Albion	Parker & Upton (hardwood mill).....Bertram
Taylor & Bro d.....Alden	Wise J K d (hardwood mill).....Blairstown
Johnson W W d.....Algona	St John Jas d.....Bloomfield
Putnam F L d.....	Eutler & Meek p m.....Bonapart
Wilson John & Co d.....	Kerr, W B d (agent).....
Chambers Bros & Co m and d (Muscatine	Carr Chas W d.....Boone
Ia).....Allerton	Nowlin Bros d.....
Madigan M d.....Altona	Lloyd & Stickney d.....Brighton
Lamb C & Son m and d (Clinton Ia).....Ames	Memer, John d.....
Jones & Bradley (hardwood mill).....	Burdick A (hardwood mill).....Bristol
Markham M A d.....	Morris J W d.....Brook
Benton W S d.....Anamosa	Conklin & Newcomb d.....Brooklyn
Blackburn John S (hardwood mill).....Arcola	Holmes T J & Son d.....
Bowers & Biltmyer (hardwood mill).....Auburn	Small W E & Son d.....
Bryant & Sharp (hardwood mill).....Augusta	Cass H d.....Buffalo
Ainsworth & Waterman d.....Avoca	Schuh L & Co m and d.....
Ledwick T d.....	Cook W E & Co s 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	
ED 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 FT & Co d		Clarke & Scott m and d	
Winter D & Co p m		Dubuque Lumber Co m and d	
Seeley & Shaw d (McGregor Ia)	Calma	Iowa Lumber Co m and d	
Anthony & McLoskey 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		Tomblin D M d	Emerson
Hull J M & Son d	Chillicothe	Pond E G (hardwood mill)	Emmitsburg
Osgood & Kimball d	Clarinda	Wilson J J & Co d	
Rucktaschel Geo d	Clayton	Hedges J S & Co d	Fairfax
Schumaker A & Co		Phipps 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		Shori N d	Ft. Atkinson
Baldwin & Maxwell d (Iowa Center)	Colo	Brown H C d	Ft. Dodge
Hobbie & Bro d	Columbus Junction	Conway Owen d	
Hoyt & Burdick d	Conover	Keefer Plough & Co d	
Secly & Shaw McGregor Ia		Atlee Saml J & Co m and d	Fort Madison
Beyner 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	Garnaville
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 O 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	Denn/son	Phelan & Zimmerman m and d	
Carver Young & Co d	Des Moines	Wikoff A H d	Hamburg
Collins & Shyrock d		Smith H J & A J d	Hampton
Getchell & Son d		Smith W P & Bro d	
Gilchrist J K & W H d		Lane & Hollister d	Honey Creek
Heath H R sash doors etc		Flusher A H hardwood mill	Horton
Sypher R W d		Eckhart Z d	Independence
Getchell & Son (Des Moines Ia)	De Soto	Ingram, Kennedy & Day m and d	
Buckley John d	De Witt	(Dubuque Ia)	
Butterfield Thos F & Co d		Kinyon S C d	
Kettering & English p m		Newman S d	

Stout Z & Co d.....	Independence	Martin S & Co d.....	Mona
Winnegar & Mauney 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.....	
Hoar, Zeno d.....		Schreiner T d.....	
Richardson J C hardwood mill.....		Boyd D L d.....	Mount Vernon
Yerger A d.....	Jefferson	McClellan & Kirkpatrick m and d.....	
Moore & Hoyt m and d (Dubuque Lumb Co.).....	Jessup	Wick J E d.....	Murray Station
Taylor Thos d.....		Chambers Bros & Co m and d.....	Muscatine
Hayward d.....	Kellogg	Eckle & Patton d.....	
Andrews J H d.....	Keokuk	Garlock John S d.....	
Hosmer & Baldwin m and d.....		Hershey & Irvine m and d.....	
Mc Gavic & Co d.....		Hoch E d.....	
Magoun & Co d.....		Kirk W T p m.....	
Scroggs J W d.....		Musser P M & Co m and d.....	
Tabor & Co m and d.....		Stine S G d.....	
Wells, Felt & Spaulding m and d.....		Union Lumbering Co m and d.....	
Marshall Joshua m and d.....	Kirkville	Turner & Bellany d.....	Nashua
Butterfield & Co d.....	Knoxville	Dillin C D d.....	Neola
Donley & Garrison d.....		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).....	Lawler	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	McGlathery T K d.....	Oelwein
Cole Warren Jr d.....	Leon	Sylvester F d.....	Ogden Station
Fry Jacob hardwood mill.....	Libertyville	Wheelock & Adams d.....	
Pancoast Joseph d.....		Elwell John d.....	Onawa City
Auracher G d.....	Lisbon	Freeland & Cleghorn d.....	
Smith P E d.....	Liscomb	Reffer Thos 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).....	Oscella
Joyce & Smith m and d.....		Rand E D & Co m and d (Burlington).....	
Langford C E d.....		Kalbach Isaac & Son d.....	Oskaloosa
Magill Chas H d.....		Leighton C d.....	
Stockwell Ira m and d.....		Snyder & Duke p m.....	
Daubenberger & Strauer m and d.....	McGregor	Wray W H d.....	
Fleming W & J m and d.....		Flemming W & J m and d (McGregor Ia).....	Ossian
Seeley & Phelps m and d.....		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.....	
Dyer W d.....		Clarnock 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.....		Dean 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.....		Fish & Hammond m and d.....	Prairie City
Alexander J S d.....	Marion	McGavie E J & Bro d.....	
Wood Geo F d.....		Steinbeck Silas d.....	Quarry
Cunningham D W d.....	Marshalltown	Bryson & Son d.....	Red Oak Junction
Stoddard H d.....		Clark J & Co d.....	
Woodworth W C & Son d.....		Rogers & Son d.....	
Ush Fostrrier & 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
Armstrong & Co d.....	Mechanicsville	Risley & Day m and d.....	
King W W d.....	Mediapolis	Shaw D & Co m and d (Ean Claire Wis).....	
Kunk 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.....Shell Rock
 Fairfield & Phillips d.....Shenandoah
 Bryson & Son d.....Sibley
 Riley & Grant d.....Sibley
 Schell Levi d.....Sigourney
 Schuck D M d.....Sioux City
 Brown & Yerger d.....Sioux City
 Hedges & Spaulding d.....Sioux City
 Rice H B d.....Stuart
 Sanborn & Follett hardwood mill.....Stuart
 Beermaker A d.....Solon
 Anthony N R d.....Stanwood
 Munson T S & Co d.....State Center
 Tutthill J W d.....Stuart
 Turner D W d.....Steamboat Rock
 Green B F d.....Storm Lake
 Slutz Theo d.....Stuart
 Stuart C d.....Stuart
 Dennis & Averill d.....Tama City
 Hall B A d.....Tama City
 Lamb C & Son m and d (Clinton Ia).....Tipton
 Culbertson John d.....Tipton
 Johnson Bros d.....Traer
 McCormick Bros d.....Traer
 Smith John d.....Union
 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
 Sweeney & Bros d.....Vinton
 Young & Son hardwood mill.....Wainut Station
 Avery Spangler & Co d.....Wainut Station
 Denny J M & Co d.....Washington
 McCouhey & Co p m.....Washington
 Sheridan & Hardestz d.....Washington
 Wilson & Wallace d.....Waterloo
 Allee & Lindley d.....Waterloo
 Ankenny & Lusch d.....Waterloo
 Beck Newman & Bro.....Waterloo
 Cobb & Jones d.....Waterloo
 Cutler W H d.....Waterloo
 Johnson H M d.....Waterloo
 Moore M H & Co d.....Waterloo
 Bodeker & Maas d.....Waverly
 Fairfield C d.....Waverly
 Hunt & Holt d.....Webster City
 Ewing J & Son d.....Webster City
 Worthington W S d.....Webster City
 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.....Wheat
 Seidl & Co d.....Winthrop
 Bush E H d.....Winthrop
 Paft D C stove factory.....Yankee Settlement

MINNESOTA.

Getchell, C. S. & Co., m and d.....Afton
 Olds & Lord, m and d.....Afton
 Pray, R. N., p m.....Albert Lea
 Seargant, Wm. P., d.....Alexandria
 Hicks, Wm. E., m and d.....Anoka
 St. Paul Lumber Co., m and d (see St. Paul). Anoka
 Washburn, W. D. & Co., m and d (see Minneapolis).....Anoka
 Mower, Martin.....Arcola
 Saulter, E. A. D.....Atwater
 Richards, W., d.....Austin
 Gordon & Cooley, m and d.....Barnum
 Essler & Bro., m and d.....Beaver Falls
 Weed & Colson, s. m.....Belle Plaine
 Ellsworth, D., d.....Belle Plaine
 Meldal & Sunde, d.....Benson
 Vogel, August, m and d.....Bloomington
 Brainard & Whitton, d.....Bloomington
 Brainard Lumb. & M'fg Co. m and d.....Bloomington
 Brown, H. A., d.....Brownsdale
 Paul, John, m and d (La Crosse, Wis.).....Brownsdale
 Gilbert, O. S., d.....Brownsdale
 Paul, John, m and d (La Crosse, Wis.).....Brownsdale
 Funk, John, d.....Carver City
 Schrimpf, A. D., d.....Central Point
 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 Co., m and d.....Chicago City
 Laird, Norton & Co., m and d (Winona). Claremont
 Morrison, H. B., d.....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., d.....Dayton
 Perkins, Bro. & Co. m and d.....Dedham
 Parslow, H. C., d.....Delano
 Frazie, R. L., m and d.....Detroit Lake
 Gill, John, d.....Dodge Center
 Magee, D. T., d.....Dover Center
 Howard, J. D., m and d.....Duluth
 Munger & Gray, m and d.....Duluth
 Patterson & McQuade, p m.....Dundas
 Shaw & Ingalls.....Dundas
 Weiland H. & Bro., m and d.....Dundas
 Archibald, J. S. & E. T., m and d.....Dundas
 Hutchins, John, m and d.....Elk River
 Houlton & Nickerson, m and d.....Elk River
 Mills, E. P., m and d.....Elysian
 Long, G., m and d.....Elysian
 Dunn, E., d.....Eyota

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

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

MISSOURI.

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

Jones B F d.....	Boonville	Miller W H & Co p m.....	Hannibal
Roberts & Lee d.....		Pinger Chas & Co d (St. Joseph Mo).....	
Thro J E d.....		Price J B d.....	
Elliott Lumber Co saw mill and d.....	Bourbon	Rowe & Tolle.....	
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
Ryder J M d.....		Rice John d.....	Hemetite
Matlack 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.....	Huntsville
Matls John H d.....	Callao	Smothers & Taylor d.....	
Maupin & Elliott d.....	Camden Point	Gates & Anderson d.....	Independence
Steiger Bros d.....	Cameron	Shortridge John (agent).....	
Burns & Mabon p m.....	Canton	May Edwin and d.....	Ironton
Ellis Wm d.....		Lilly & Smith d.....	Janesport
Hampton John P d.....		Bush & Becker d.....	Jefferson City
Stappes 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.....	Kansas City
Fisk & Haines saw mill.....		Chester Melville & Co d.....	
McCarthy & Gilbert d.....		Crawford & Crouse saw mill.....	
Moore Bros d.....		Deardorf L d.....	
Fisher Joseph, jr d.....	Cedar City	Dubock & Co d (Hannibal Mo).....	
Breest & Bro d.....	Center Town	Leach & Hall d.....	
Robinson James & Co saw mill.....	Chamois	Lovejoy G W p m.....	
Frank J S d.....	Chillicothe	Ludwig Thos J p m.....	
Herne, Harriman & Waples d.....		Merrill J W d.....	
Williams R B & Co d.....		Temple Jas d.....	Kidder
Tooley & Jacobs d.....	Clarence	Hammond C G d.....	Kirksville
Hughes B D.....	Clarkville	Sharp L R d.....	
Carpenter W H d.....	Clinton	Perkins G H d.....	Knob Noster
McAllister & Bowling d.....	Columbia	Cathers D B d.....	La Clede
Loehofner & Tegeler d.....	Concordia	Quinsberry & Farmer d.....	La Grange
Morton J W saw mill.....	Corsicana	Irvine & 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.....	Ellenorah	Waples A J d.....	Liberty
Elston E saw mill.....	Elston Station	De Forest & Co saw mill.....	Licking
Lang & Bro saw mill.....	Farmington	Jones & Granger saw mill.....	Lincoln
Douglas & Bro p m.....	Fredericktown	Carson Geo L d.....	Louisiana
Kennedy & Thompson p m.....		Dreyfus Hill & Co d.....	
Farmer & Jones d (Pleasant Hill Mo).....	Freeman	Eau Claire Lumber Co m and d (Eau Claire Wis).....	
Stanchfield L S saw mill.....	Gads Hill	Edison Nichols & Co (Clarksville).....	
Lester Eugene W saw mill.....	Gayose	Freeman & Co m and d.....	
Birch T E, jr d.....	Glasgow	Soward & Dyer p m.....	
Lewis C H d.....		Farrar & Bourk d.....	Macon City
Harrold John S saw mill.....	Glaze City	Graham F M & Co saw mill.....	Marquand
Simmons H D.....	Gower	Linn & Farrar saw mill.....	
Hope Geo D d.....	Greenfield	Whitener & Son saw mill.....	
Hope Geo D d.....	Greenwood	Wilkinson W J Jr saw mill.....	
Hines M O d.....	Hamilton	Coleman & Stagner d.....	Marshall
Reddie Geo d.....		Page C G d.....	
Allen & Knowl.....	Hannibal	Muster J S d.....	Martinsburg
Conlon J.....		Tapscott A W d.....	
Cruikshanks John Jr d.....		Anderson & Bro d.....	Maryville
Davis Bockee & Garth.....		Waterman J C & Co d (Barnard).....	
Dorman Uriah.....		Goodale L N d.....	Meadville
Dubach D & Co.....		Marks Abe d.....	
Dulaney & McVeigh.....		Woodard & Co saw mill.....	Mendota
Hannibal Union Works sash doors etc.....		Coatsworth & Co d.....	Mexico
Hearne Herriman & Co.....		Meyer John d (St Louis).....	
Hibbert John V sash doors etc.....		Wright Josiah d.....	Miami
Hixon G C & Co.....		Guthreys & Haynie d.....	
Northwestern Lumber Co m and d (Eau Claire Wis).....		Hill M C saw mill.....	

Stanley & Stickler d.....	Milan	Schuelle & Querl, n. Main st d.....	St. Louis
Carter C C d.....	Missouri City	Phillibert & Johanning, planing mill, 1502	
Firth Wm d.....	Moberly	to 1518 Market st.	
Hassett Bros d.....		Theo. Bloess, Carondelet Ave. cor. Barton	
Petering E H d.....		d.....	
Porter W W & J B d.....		August Leisse, 609 Chouteau Ave. bet. 6th	
Mathew John L d.....	Monroe City	and 7th sts d.....	
Davis W A & B saw mill.....	Monticello	Boeckeler A & Co m and d.....	
Kerr Wm d.....	Montrose	Boeckenkamp & Surkamp, cor. 9th and	
Morgan P A saw mill.....	Morgan's Mills	Menree sta. d.....	
Bacon F M d.....	Mound City	Lobsinger, Meegan & Co., Carondelet m	
Barber & Herms saw mill.....	Neosho	and d.....	
Neosho Planing Mill Co.....		Clear Water Lumber Co m and d.....	
Robinson James & Co 'sash, doors etc.....		Fleitz & Ganahl, 1320 Jackson st. d.....	
Carey saw mill.....	Nevada City	Methudy & Meyer, commission, 22 s.	
Glendon J W d.....	Nevada City	Main st.....	
Southwick & Goodall d.....	New Cambria	Berthold & Jennings, commission, 28 s.	
Fitzhugh J S d.....	New Florence	Main st.....	
Forrest R W d.....	Norborne	Beldemeier H W & Co Eastern av d.....	
Johas T R d.....	North Springfield	Williams & Alford, commission, 100 s.	
Kennedy & Druhe d.....		Main st.....	
Raithel J G d.....		Clement H S commission.....	
Berry & Bros.....	Omaha	Cole & Glass p m.....	
Petty J J saw mill.....		Cronkrite A H (Wisconsin River Lumber	
Potter B T d.....	Oregon	Co Stevens Point Wis) St James Hotel...	
Carter M S saw mill.....	Osage City	Davitt John W d.....	
Cerny & Vader saw mill.....		Druhe W d.....	
Hollister & Co saw mill.....		Dryden & Reid d.....	
Maxwell J B d and saw mill.....	Osage P O	Hill Lemmen & Co m and d.....	
Hitt B M d.....	Osborn	Hocker & Hengelsberg d.....	
Armick J F d.....	Oterville	Holmes J A & Co d.....	
Potter & Wharton saw mill.....		Hymers Ed H d.....	
Haycox P S saw mill.....	Overton	Luthy Jas d.....	
Williams H d.....	Pacific	McIlvain Robt d.....	
Kiser Wm B saw mill.....	Palmyra	Matlack Geo d.....	
Ross & Kennedy saw mill.....	Paradise	Meyer John, Cass av d.....	
Bower G M d.....	Paris	Mincke G F d.....	
Wilson Wesley d.....		Mississippi Planing Mill Co (Jas Patrick	
Luthey Franklin d.....	Parkville	Pres't).....	
Harper & Ball d.....	Pendleton	Naber Chas d.....	
Killian J C saw mill.....	Perryville	Nuelle W & Bro m and d.....	
Crist Bros d.....	Phelps City	Olcott Duross & Co p m.....	
Barton J H d.....	Pierce City	Rippee Geo W & Co d.....	
Tribble Andrew d and saw mill.....	Platte City	Sterling John p m.....	
Hockaday J N & Son d.....	Plattsburg	Wright J C & Co p m.....	
Stearns d.....		Yaeger H C South Main st commission....	
Beegle & Meyers d.....	Pleasant Hill	Hodges & Sons saw mill.....	Salem
Farmer & Jones d.....		Wofford C P & Co saw mill.....	
Hope Arthur d.....	Point Pleasant	Thornton J saw mill.....	Saline City
Boyce R F & Son saw mill.....	Potosi	Dulaney Thos G d.....	Salisbury
Barkeley David saw mill.....		Wayland Ely d.....	
Smith Chas D saw mill.....		Young Geo saw mill.....	Savannah
Smith W D & Bro saw mill.....		Waterman & Nast d.....	Sedalia
Walton & Co d.....		Bloss W & Co d.....	
Cadle Henry d.....	Princeton	Gauss C H d.....	
Leeper John P d.....	Richmond	Ritter Richard d.....	
Baughner E H saw mill.....	Richwoods	White & Meyer d.....	
Traub Geo & Co d.....	Rockport	Warren W d.....	Shelbina
Cruesbour Chas d.....	Rolla	Ralph Jas d.....	Shelbyville
Russell Giles saw mill.....	Russell's Mills	McBride Jr C saw mill.....	Silver Lake
Holrah & Machens d.....	St Charles	Hendricks & Co saw mill.....	South Point
Smith Job d.....	St James	Ganahl Fidel d.....	South St Louis
Thummell W G d.....		Lobsinger Meegan & Co m and d.....	
DeClue John p m.....	St Joseph	Knott & See p m.....	Springfield
Dougherty Ray & Co d.....		McDonald O G d.....	Stewartsville
Hamilton Bros saw mill.....		Shapter Wm saw mill.....	Taos
Hoagland Geo T & Son d.....		Marbes Chas d.....	Tipton
Lyon Geo d.....		Hannestein W saw mill.....	Tusculum
Pinger Chas & Co d.....		Mabrey Thos.....	Twin Springs
Smith & Swope saw mill.....		Willard P G & Son d.....	Utica
Waterman & Barnard d.....		Savage E d.....	Vandalia Station
Phillip Gruner, Jr., s. e. cor. of 9th st. and		Mundy W W d.....	Verona
Cass Ave d.....	St. Louis	Lowe W d.....	Warrensburg
Woorheide & Luehrmann, planing mill, 813		Moore & Kinsell d.....	Warrenton
Cass st.....		Schowengendt E & Son d.....	Washington
Schulenburg & Boeckeler m and d.....		Trentman, Uarup & Co p m.....	Waverly
Leeley, Garnett & Co., planing mill, 124		Fletcher W d.....	Wellsville
Olive st.....		Miller Jacob d.....	Weston
Parker, Spencer & Co., 3,922 Broadway m		Allen Jas P d.....	
and d.....		Wells John B saw mill.....	
Knapp, Stout & Co., Bremen Ave m and d		Morse C C d.....	Windsor
Patrick Bros. Lumber Co., Bremen Ave d.			

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.....	
Poster N d.....	Bell Creek	Noyes E d.....	Louisville
Crowell C C & Co.....	Blair	Moore & Sunderland d.....	Lowell
Bell John R d.....	Brownville	Hill W E d.....	Nebraska City
Clemans A F.....	Coleraine	Monroe & Dillan d.....	
Turner & Hulst d.....	Columbus	Linsabaugh Wm 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.....	
Waynes D P d.....	Fairfield	Turner Chas d.....	
Edwards H L d.....	Fairmount	Foster W M m and d.....	
Lyon J F d.....	Falls City	Pomeroy & Kennedy d.....	Papillion
Rickards & Merrill d.....		Tisdale F A Jr & Co d.....	Pawnee City
Thacker & Davis saw mill.....	Falls City	Gardiner & Robinson d.....	Pebble Creek P O
Hoagland Geo & Son d (St Jo Mo).....	Grand Island	Waterman H A & Son d.....	Plattsmouth
Peck & Meston d.....	Harvard	Faulkner E & Co d.....	Schuyler
Ballard J H d.....	Hastings	Barrett W B d.....	Seward
Cox d.....		Sorter Isaac B & Son d.....	
Grannis A B d.....	Hebron	Gray W H & Son d.....	Sutton
Tinker E P d.....	Humboldt	Monell, Lashley & Weed d.....	
Sullenberger, Newton & Landon, saw mill.....	Ionia	Poster H P d.....	Tecumseh
Hedges & Granger d (Sioux City Ia).....	Jackson	Sanders Wm d.....	Unadilla
Van Alstyne W L d.....	Junata	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 & Herriek d.....	Alma	Brinkman G L d.....	Great Bend
Channell S P d.....	Arkansas City	Bunting John d.....	Hanover
Easy Sherer & Stone d.....	Atchison	Treat M J R d.....	Hays City
Gillespie G W & Co saw mill.....		Bause J P d.....	Hiawatha
Hixon G C & Co d (Hannibal Mo).....		Spear I N d.....	
Jones & Co d.....		Dickey Jason d.....	Holton
Lukens David d.....		Williams & Woener d.....	
Clark H S d.....	Baxter Springs	Amos John d.....	Humboldt
Smith J H d.....		Stevens & Co d.....	Humboldt
Patter E M d.....	Belle Plains	Edwards W C d.....	Hutchinson
Campbell Geo & Alex.....	Beloit	Bradford McCoy & Co m and d (Quincy Ill).....	Independence
Holbrook T saw mill.....	Blue Rapids	Cuiver & Rewe d.....	Iola
Stakes G B d.....		Hunt E S d.....	Irving
Mynant J B d.....		Rogers L F saw mill.....	Island
Leslie M F d.....	Brookville	Boller H A d.....	Junction City
Voorhis A L d.....	Bunker Hill	Stickney A C d.....	
Miner S E & Co d.....	Burlingame	Green M T d.....	La Cygne
Cross David & Sons saw mill.....	Burlington	Bruce C & Co d.....	Lawrence
Smith L C d.....	Cedar Point	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 & Bockford d.....	
Tyler M S d.....	Clay Center	Ingersoll Jerome d.....	
Smith G W (agent for Johnson & Bridges).....	Clyde	Munson & Burrows p m.....	
McKircher & Mitchell d.....	Colody	Plummer & North saw mill.....	
Allen Bros d.....	Columbus	Spartley & Taylor saw mill.....	
Campbell D W d.....	Concordia		
Edwards W C d.....		Bower & Bradshaw d.....	Lenexa
Colton Bros d.....	Council Grove	Green & Byrne d.....	Louisburg
McLoon E C d.....		Goodnow F d.....	Macpherson
Allen F M & Co d.....	Edgerton	Haight & Touts d.....	
Fauble J M & Co d.....	Edwardsville	Tyler M S d.....	Manhattan
Kuney Southwick & Co d.....	Ellsworth	Richardson & Clark.....	Marysville
Armor Thos saw mill.....	Emporia	Thomas R A & Co d.....	Muscatine
Pierce C F & Co (also at Wichita & Florence).....		Brown S A & Co d.....	Neosha Falls
Lothholz Chas d.....	Eudora	Covert Parsons & Cozine d.....	
Clogston & Allen saw mill.....	Eureka	Muse Spivey & Co d.....	Newton
Raymond M B d.....		Dorman & Gorsline d.....	Olathe
Pierce Chas F & Co d (Emporia).....	Florence	Hardin E F & Co d.....	
Dorman N d.....	Fontana	McCarthy J N d.....	
Whare H E & Co d.....	Fort Scott	McNabb J A d.....	
Brady A d.....	Frankfort	Hunsicker Isaac K d.....	Osage City
Filkins D J.....		Gittings Louis d.....	Osage Mission
Thorne W H d.....	Fredonia	Mills D C & Bro d.....	Oswego
McCoy W d.....	Gardner	McDonald Kemper d.....	Ottawa
Crane J P d.....	Garnett	Richmond Bro d.....	Oxford
Flickenger Robt saw mill.....	Geary City		

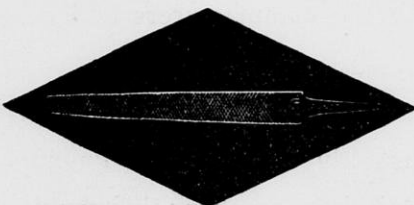
Dahl W saw mill.....	Ozaukee	Pendleton B H d.....	Solomon City
Thayer J E & Son d.....	Paola	S L Choate d.....	
West A S & Son.....		Rogers J C & Co d.....	Spring Hill
Wallis J A d.....	Parkerville	Bradford McCoy & Co m and d (Quincy Ill.)	Thayer
Calkins & Fisher d (Chicago Ill.)	Parsons	Reed C d.....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

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39, 41 and 43

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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.

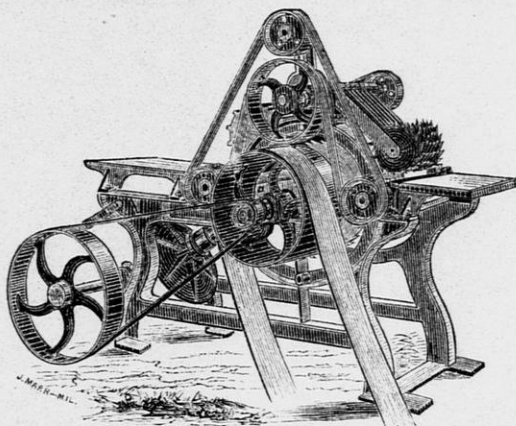
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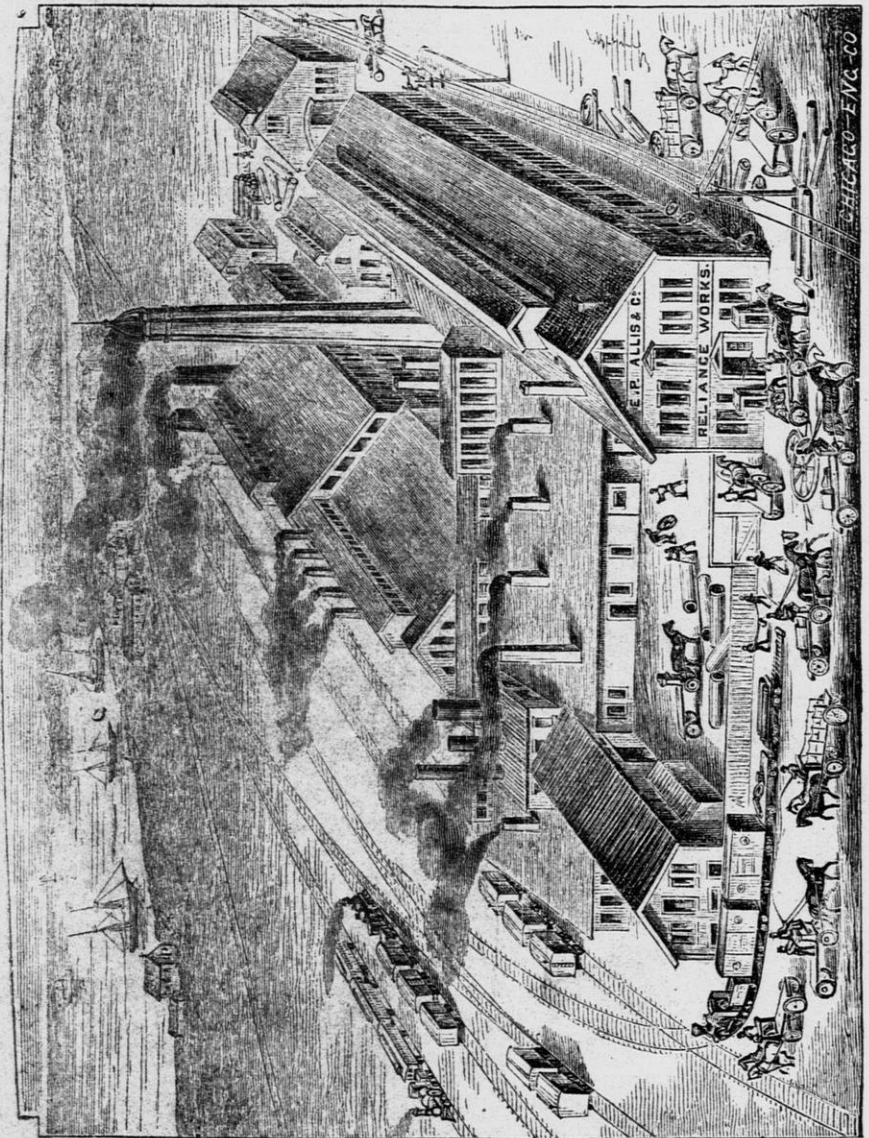
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