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THE
Wisconsin Lumberman,

DEVOTED TO THE

LUMBERING INTERESTS OF THE NORTHWEST.

NOVEMBER, 1873.

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MILWAUKEE:

THE WISCONSIN LUMBERMAN PUBLISHING CO.,
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T H E

WISCONSIN LUMBERMAN.

VOL. I.—NOVEMBER, 1873.—No. 2.

X *THE FUTURE DEMAND FOR LUMBER.*

Few people fully realize the extent and rapidity of the present profitable development of that portion of our country which is embraced between the Rocky Mountains on the west and the lake country on the east, and known properly as the valley of the Mississippi. During the past decade the immigration to Minnesota, Iowa, Dakota, Nebraska, western Missouri and Kansas has been unparalleled in the history of legitimate and permanent settlement; and while statistics will show the exact numerical facts of immigration, they are almost valueless as an aid to the mind in even a partial conception of the wonderful changes which have occurred in this vast territory, within a very few years. To persons, also, who have never visited the country west of the Mississippi, but an imperfect idea can be conveyed by description, of a territory embracing hundreds of thousands of square miles of the richest known agricultural lands, almost entirely destitute of any kind of timber. Trips through by railway do not furnish the observer with even an approximate knowledge of the physical geography and the immensity of that wonderful val-

ley. Only actual residence can fully impress on the mind a true appreciation of the extent of the valley of the Mississippi and its advantages, future prospects and necessities. Its advantages may be mentioned briefly as consisting of an unequaled fertility of soil, ease of cultivation, adaptability of climatic influences to grain growing and stock raising, and abundance of water; the single great necessity is embraced in a word—TIMBER. The history of the past ten years is an indication, in fact a guarantee, of the future prospects. In 1862 the immigrant who traversed the Sante Fee trail from Leavenworth considered himself in the wilderness after reaching St. Mary's Mission and entirely beyond the pale of civilization when Fort Riley and Junction City were passed. The idea that railroads could have been built throughout that land within the present date would then have seemed almost as chimerical as the establishment of an aerial line of balloons between New York and Liverpool; however, not only have the Kansas Pacific and Union Pacific tracked their way across the treeless plains, but a perfect net-work of railways has developed in Missouri, Iowa and

Minnesota where, less than six years ago, the prairie only gave token of civilization by the occasional hut of the homestead settler. Western Minnesota, northwestern Iowa, south-eastern Dakota and Nebraska are probably the most note-worthy examples of sudden, extended and permanent settlement and development known to the history of our land. The class of people who have sought homes in this portion of the Mississippi valley are mostly young, energetic, industrious citizens, poor in pocket at present but with a certain prospect of eventual success. Their first object is land; then a comparative shelter as a home which, in a majority of cases consists of a log cabin or sod-shanty; then stock and agricultural implements. Their next desideratum will be pine lumber, but as yet they have not called for that commodity to any great extent from sheer inability to pay for it. Can any one doubt for a moment that a few more years of prosperous grain and cattle raising will place the homestead settlers of the west in a position to need, use and buy millions of feet annually of the products of our pineries? We well understand, of course, that large amounts of lumber are now called for by the localities along the line of our western railways; but we claim as a fact that but a small proportion of the settlers of the country of which we speak have as yet demanded even light bills of pine lumber. They are not yet quite ready to use it, or rather making a virtue of necessity, they do without. But the time must soon come when an active and enormous

demand will reach our manufacturers; and when that demand is developed it will continue steadily and undiminished, for a retrograde movement of the prosperity of that country can scarcely occur owing to its unexampled fertility of soil and favorable characteristics for agricultural purposes generally.

Several facts bearing upon the future demand for lumber are well worth considering, and perhaps may be illustrated by comparison. For instance, the New England, Middle and Southern states were originally covered with a grand forest growth, and although but a few generations have passed away since their earliest settlement yet a scarcity of timber is already acknowledged, even for local use and consumption. Passing on to the valley of the Mississippi, we find an area much larger in extent and far better adapted to agricultural life and prosperity, comparatively destitute of forests even suitable for ordinary household purposes. In fact, we discover that the most rapidly developing and most extensive agricultural region of the world is soon to be entirely dependent for its timber and lumber upon the comparatively few acres of pine yet remaining in Michigan, Wisconsin and Minnesota. When we compare in our mind the area of this timber land and that of the treeless plains, we cannot but imagine the valley of the Mississippi a huge farm with a very small grove in the northeast corner. We have carefully estimated, from information derived from many different localities, the amount of pine yet remaining uncut in the northwestern

pineries and unhesitatingly give the opinion that there is standing to-day in Michigan, Wisconsin and Minnesota not to exceed one hundred billion feet of stumpage. In 1870 there was manufactured, in the pineries named, three and one-half billion feet of lumber; and comparison shows that the amount was nearly or quite *three hundred per cent greater* than the product of 1860; and yet present supply, operations and prices, indicate that the increase has only kept pace with the demand. Suppose, for argument's sake, that the next decade should witness a corresponding and equal rate of increase of demand and supply, how long would our estimated amount of pine (one hundred billions) last? Is it not probable that the rate of increase in demand will continue, owing to the certain development of the prairie county? And is it *possible* that the rate of increase in manufacture can still continue in the same ratio? The rate of increase in manufacture *cannot* continue, and we therefore deem the opinion sound that no product of manufacture will increase in demand and value during the next ten years equal to that of lumber and shingles. The development of a country destitute of timber has in reality but just commenced while any increase in the manufacture of pine lumber will soon deplete the forests from which we now obtain our supply. We believe that but few persons fully realize the great disparity between the vast territory which will soon be clamoring for lumber, and the very limited locality which is expected to supply that demand.

Thinking men will carefully study present facts and future prospects and will be enabled to so control their business that greater financial prosperity than they have yet known will be within their grasp before the present decade shall have passed away.

AN EVIL THAT NEEDS CORRECTING.

With regret we are obliged to state that many local newspapers are habitually given to exaggeration in their statements regarding the business and manufacturing of their respective localities. In the case of lumbering statistics of manufacture great injury is inflicted by these exaggerations; as southern and western dealers are led to believe that a greater amount of lumber, shingles, &c., are about being placed on the market than is really the case. Local papers will, in many instances, give an approximate estimate of amount manufactured, and almost invariably place their figures much higher than facts will warrant. By a moment's thought they will know that if their information is relied on at all, it must work to the disadvantage of the very business men they are trying to benefit; for the greater the amount likely to be placed on the market the less anxious will dealers become to purchase largely at once. Local newspapers should be cautious and at least keep within the limits of facts.

THE capital stock of the Wausau Boom Company is to be increased to \$50,000.

THE LUMBER TRADE OF MILWAUKEE.

The lumber trade of Milwaukee is comparatively insignificant; 100,000,000 per year seems to be the maximum amount yet handled yearly by dealers in this city. To a person unacquainted with the style and policy of the business men of Milwaukee, it seems beyond comprehension that the wheat trade should have assumed such immense proportions and other interests of almost equal importance have been allowed to seek other channels of receipt and shipment. If the location of Milwaukee together with its facilities of transportation from the west have here created the greatest wheat market of the world, we can conceive of no reason why this city should not have been, long ago, the rival of Chicago in the lumber interests which have so largely contributed to the growth, wealth and importance of that energetic and enterprising city. Milwaukee is at least 60 miles nearer the seat of lumber manufacture than Chicago, possesses equal facilities for shipment directly west, has more available space for yards and suitable storage, and yet the latter city annually handles one billion, two hundred million feet *more* than Milwaukee. Nine thousand vessels unloaded cargoes of lumber at Chicago last year and the lake freights thereon amounted to nearly \$3,000,000. The profits realized by Chicago dealers is not less than \$2,000,000 while the increase of labor and general business resulting from this trade, is enormous and constitutes one of the main features of Chicago's prosperity. It is pertinent to inquire why the country which

empties its millions of bushels of grain into the lap of Milwaukee should yet seek one of its greatest necessities, lumber, elsewhere? True, lumber manufactured in central and north-western Wisconsin, has direct communication with western and southern markets without approaching Milwaukee, but the Michigan lumber which is now shipped to Chicago would naturally prefer the route west *via* this city. The causes which, at all events, *do* act to the detriment of the lumber interest here, are either to be placed to the discredit of the railroad managers, or else to inexcusable incapacity of business men who now control the trade. No one will doubt for a moment that business talent is just as likely to develop in healthful Milwaukee as amid the marshes of Chicago, and we are therefore compelled to believe that unfavorable discrimination is made by transportation companies against the lumber trade of our dealers, or else that the railroad companies are not willing to furnish proper side tracks and other facilities for moving and handling this important freight. At all events, Milwaukee is now losing, on what should be her proportion of the western lumber trade, at least one million dollars clear profit per annum, and the railroad companies are also losing at least 150 carloads of freight per day. The lumber trade of Milwaukee is an undeveloped interest which should meet the earnest attention and consideration of business men who have the welfare and prosperity of the city in mind. Let them fully investigate the present situation and they will find that no branch of commercial industry has

ever been so completely ignored and compelled to meet such unwarranted and unnatural obstacles, as the lumber business of Milwaukee.

OSHKOSH.

Oshkosh is the "second city" in Wisconsin. It is second only to Milwaukee in population, in manufactories, in favorableness of location, in business energy and spirit, in wealth, in future prospects. Oshkosh has an extended reputation; indeed, ever since Ed. McGlachlin wrote that he "was going up to Oshkosh to have a little fun with the boys," the place has been notorious. Olive Logan sought advantage by associating that city prominently with her most popular novel. It is a favored spot, and the capabilities of its business men will utilize its present advantages, and the immense resources which are tributary will increase its power, wealth and population rapidly and steadily in the coming years. To-day Oshkosh is pre-eminently a lumber manufacturing city; in ten years that interest will be superceded by wooden-ware factories, by agricultural machine works, by blast-furnaces, by foundries, by machine shops and by the wholesale business developed at the demand of the rapidly settling central and northern portion of the state.

It is our intention at this time, however, to speak more particularly of the lumber interests concentrated at this place. The Wolf river, with its tributaries, extending through and into the counties of Oconto, Shawano, Marathon, Waupaca, Outagamie

and Winnebago, drains a territory of not less than 3,000 square miles in extent, embracing one of the finest pineries in the west. Boomage capacity is the first essential thought of by pioneers in lumber manufacturing, and the great advantages in this respect afforded by the junction of the Fox and Wolf were early appreciated. The result is that the greatest concentration of lumber manufacturing and kindred interests in the state is found at Oshkosh. As we recently visited the different mills, we endeavored to use our own judgment in relation to their capacity, and came to the conclusion that the present machinery could actually cut 300,000,000 per year. Interviews with different business men proved, as usual, that opinions in relation to the amount that has been, or will be, manufactured during 1873, varied materially, and ranged from 125,000,000 to 200,000,000. We should judge the latter figure too high an estimate by at least 30,000,000. We found the saw mills running at about one-half their actual capacity, while the shingle mills were doing, proportionately, a much larger business. The amount of lumber in the pile was indicative of an intention on the part of manufacturers to hold every board possible until remunerative prices shall pay a fair percentage on the capital and labor invested. By conversation with prominent manufacturers, we were led to believe that Oshkosh lumbermen generally are masters of their own situation, and will be enabled to hold their lumber until financial affairs assume a more promising aspect and the market

once more shows an upward tendency. Shingle manufacturers were shipping more extensively as the market prices for their products were somewhat more favorable. A careful examination of lumber sawed at the different mills strongly impressed us that far greater attention is paid to the proper sawing of logs, than in many mills we have noticed in the northern pineries; in fact, we think the superiority of sawing at the Oshkosh mills worthy of particular mention. Oshkosh is not only a great lumber manufacturing centre, but it is also rapidly assuming a prominent position as a retail market. From all portions of the western states orders are now received and manufacturers bill car loads directly to many consumers. Oshkosh is in reality as much of a retail market as any point on the Mississippi, and is enabled to supply a better quality of lumber at equal rates. At the present rate of cutting, however, the Wolf river pinery cannot last but a few years longer and Oshkosh must be prepared to exchange her present manufacture of pine lumber for business pertaining more particularly to the commercial centre of a great and growing agricultural country and particularly to the wholesale trade of the northern portion of Wisconsin. Judging from such information as we were enabled to obtain, we should say that the amount of logs to be put up this winter on the Wolf and its tributaries, will fall far short of operations for the past two winters. At present prices of lumber and stringency of the money market, it is of course preferable to leave timber standing,

and our personal opinion is that even of those calculating to do certain amount of logging, the prospects are they will fall short of, rather than exceed, the amount they now calculate to cut. -

We are glad to note the fact that Oshkosh manufacturers seemed in excellent spirits considering the financial situation, and without exception indicated a realization of the truth that lumbering interests have suffered less in comparison, by the recent panic, than any other industry of the country. Business this winter will be conducted on a more careful and thorough plan than ever before, and we have no doubt whatever that marked beneficial results will be apparent on the opening of the spring trade. Lumbermen will be extremely cautious in their plans for the winter's work, wages will be materially lower than usual, less logging and a better quality will be the general rule, and we are therefore compelled to believe that the monetary stringency will actually redound to the future welfare of those interested in lumbering affairs in this section of the State.

THE HON. Philetus Sawyer has disposed of 640 acres of pine land in Oconto County, on Wolf river, to Captain John Lynch and associates, of Oshkosh, for \$50,000, or nearly \$80 per acre. The tract is estimated to have about 14,000,000 feet of merchantable pine timber upon it.

ABOUT 110,000 feet of logs have been handled, assorted, divided and marked by the Boom Company at Marinette, during the season.

FOX RIVER IMPROVEMENT.

THE WORK THAT IS BEING DONE ON THE LOWER FOX UNDER THE CONGRESSIONAL APPROPRIATIONS.

From the Oshkosh Northwestern.

Capt. E. M. Neff, of the United States steamer Crawford, now employed in the work of improving the Fox River, came up from Appleton Saturday night, and to-day our reporter had an interview with him from which several interesting facts were elicited. It will be remembered that, after years of earnest labor by the press of Wisconsin, congress was finally induced to purchase the interest of the Green Bay & Mississippi Canal Company in the locks and canals on the Fox River, and the government assumed possession and control of the route. Then, after more hard work and in the face of powerful opposition, an appropriation of \$100,000 was secured to begin the work, and later, another one of \$300,000 was voted.

ON THE LOWER FOX.

Under this appropriation, Col. D. C. Houston, of Chicago, who has charge of this work for the United States government in the northwest, appointed as his assistant, Capt. N. M. Edwards, who was placed in charge of the work of improving the lower Fox. Capt. Edwards was the chief engineer of the old Green Bay & Mississippi Canal Company, and was well acquainted with the condition of the river and the improvement. He appointed as his assistants under him the engineers as follows: For the section between the Cedars, near Appleton and Green Bay, Col. Leonard Martin, of Green Bay; between the Cedars and Oshkosh, Captain J. W. Bryson; from Oshkosh to Portage, Engineer Russell. Between Oshkosh and Portage on the upper Fox, but little work is being done.

AT APPLETON,

a crew of 200 men is at work. The

large dam above the Island, which has been a terror to steamboat men during the past three years, is being entirely rebuilt. This dam is twelve feet wide at the bottom, four feet at the top, nine feet high. Stone is quarried on the spot and lifted into position by means of cranes.

ABOVE APPLETON

a distance of about a mile, the Rapids are now being dredged out. It was supposed that the bottom at this point was a mass of solid rock, and when the work was commenced, many laughed at the idea of dredging in such a hard foundation. With the machinery now in operation, however, the bed of the river is being lowered so that hereafter there will be at least six feet of water over the worst part. The passage at this place is 125 feet wide.

BELOW THE DAM.

Near the paper mill another dredge is at work, deepening the mouth of the lock. The lock at this point is being replanked and repaired generally.

AT KAUKAUNA.

Here is one of the finest quarries of building stone in the west. In 1859, Col. Edward Daniels, State Geologist, pronounced the stone from this quarry to be the best in Wisconsin for building purposes. It is a species of gray limestone, very hard and susceptible of a high finish. Capt. Neff tells us that he saw one stone taken out here for the improvement which measured 75 feet in length, 3 feet in width and 28½ inches in thickness. Stone for all the locks on the lower Fox except those at Appleton, is quarried here. About two miles above Kaukauna is what is known as

THE COMBINED LOCK.

Two locks opening into each other give it the name. Each lock is 160 feet long and the whole is being rebuilt from the bottom. It makes a stone wall 20 feet high, nearly 400 feet long and 8 feet thick. It is built

of solid masonry from the quarry at Kaukauna.

AT THE "CEDARS,"

between Appleton and Kaukauna, the locks are being repaired with new wood work, and put in good condition.

THE STEAMBOATS.

It will be remembered that the Cornucopia, formerly owned by the L. & R. line was purchased for this work last spring. She was entirely refitted at the ship yard in this city, and is now at work carrying lumber and supplies. She is now called the Crawford, and commanded by Capt. Neff. Another boat was built at the same yard called the Edna, which is now at work in the vicinity of Kaukauna, under command of Capt. Barney Doherty.

THE WORK

will probably be completed for the passage of boats before the close of navigation this fall, or about November 15th. It is expected that by that time, the whole route from Menasha to Green Bay will be ready for the passage of boats drawing 6 feet of water, with 35 feet beam. All of the locks on the lower Fox will then have been put in good condition, those which were badly decayed will be entirely rebuilt, and those but partially gone, restored to their original strength.

We understand the Ashland Lumber Co., design running their mill to its full capacity next season. They will purchase or charter a vessel the coming winter, and transport their lumber to South Shore ports, and also to the North Shore another season. It is their intention to put in three or four million feet of logs during the winter. They have on hand at present about one million and a half feet of sawed lumber. It is a very fine mill and the company mean business. Success to them.—*Ashland Press.*

EARLY LUMBERING IN WISCONSIN.

Correspondence of the Milwaukee News.

"Jefferson Davis was the first lumberman in Wisconsin. I learn from an old man by the name of Joseph Benson, who enlisted in the 1st regiment of United States Infantry, in the year 1824, then under the command of Lieut. Col. Taylor, (late President Taylor) and who was on duty with his regiment at Fort Crawford (now Prairie du Chien) in the year 1829, while the Fort was in progress of construction, that Jefferson Davis, then a lieutenant in the 1st regiment, was detailed with his company to ascend the Mississippi river in birch bark canoes to the first pine forest discovered on either bank of the river, or any of its tributaries, and there cut and hew a given quantity of timber, raft and float it down to the fort for building purposes.

On the opening of the river in the spring of 1829, long before the day of steamboats on the Upper Mississippi was known, but while the country was in a savage state of nature, with the black bear, the elk and the deer in the greatest abundance, and while Indian wigwags were the only evidence of human inhabitants that greeted the eye of civilized man; this little band of soldiers pursued their journey off to the mouth of the Chippewa, 175 miles above Prairie du Chien. There Lieut. Davis concluded to leave the Mississippi and ascend the Chippewa, which he did until they came to the mouth of what is now called the Red Cedar. Up this stream they worked their way about forty miles, when they came to the splendid pine forest adorning the banks of the Red Cedar. At this point where the beautiful and thriving village of Menomonee now stands and where the mammoth mills of Knapp, Stout & Co., which cut about sixty millions feet of lumber annually, they disembarked and went into camp, and began the labor for which

they came. At this point and at this time the sound of the white man's ax was first heard in the pine forests of Wisconsin.

Many thrilling and interesting incidents are described by this old veteran soldier Benson as happening during that celebrated timber expedition of Lieut. Jefferson Davis; but for the want of space they must be omitted. The required amount of timber was cut, however, rafted together in the river and floated down to Prairie du Chien, where it was used in the construction of Fort Crawford.

The following summer it became necessary to use a larger amount of timber and lumber at the Fort than was on hand, and a similar expedition was fitted out, with the exception that it was on a much larger scale, as it was provided with everything necessary to build a small saw mill, and instead of Lieutenant Davis commanding, it was under command of Lieut. Garay, who arrived here with his equipments early in the season, stopping a month at what is now called Gilbert Creek, a short distance below this place, on the Red Cedar river, built a dam on Gilbert Creek, and erected the first saw mill that was ever built in what is now called Wisconsin's lumbering regions, if not the first mill in the state. The foundation of that old mill, which was built under the direction of Lieut. Garay, of the 1st United States Infantry, over forty years ago, and was always known as the government saw mill, is still to be seen by paying a visit to the spot, around which cluster many of the most pleasant reminiscences of pioneer life in Wisconsin. At this old saw mill the Chippewa Indians would congregate to see how the whites could use the water to manufacture lumber. Here white men first learned to speak the Chippewa language, which so many white men speak fluently now through this country. And it was at this old mill where the Chippewa Indians

would beg the soldier's bread, steal his meat, and then set his shanty on fire while its inmate was asleep, if he were not watched with a vigilant eye. This old government saw mill was on a very small scale, having but a single sash saw, and a capacity of about one thousand feet per day. On the return of Lieut. Garay's expedition late in the fall of 1830, to Prairie du Chien, the fact became known to the few white settlers there of the superior pine forests upon the banks of the Chippewa river and its tributaries. So with an eye to business characteristic of the Yankee nation, J. H. Lockwood, of Prairie du Chien conceived the idea of embarking in the business of manufacturing lumber in the pineries, and rafting it down to a down river market. In the year 1831 he in company with some other men whose names are not remembered now, set themselves to work in getting the material together to build a saw mill up in the pine forest, which they succeeded in accomplishing in the year 1832. This little mill was built on the Red Cedar river, just below where the government mill stood.

PERSONS desirous of selling pine lands will do well to advertise them in this journal; the first edition of 5,000 copies was exhausted within one week from date of publication, and an extensive subscription patronage is already assured throughout Wisconsin, Michigan and Minnesota.

A SECTION of land in the Wolf river, pinery recently sold for \$5 per M. stumpage. Of course it will be generally understood that the quality of the timber and its favorable location were principal considerations in the buyer's mind.

From the Mil. Literary Messenger.

THE DELLS OF THE WISCONSIN RIVER.

"Sailed through all its bends and windings,
Sailed through all its deeps and shallows."

Among the least known, but most romantic, wild, rough and rugged scenery in our state, and perhaps the most curious and wonderful in the United States, are the Dells of the Wisconsin river.

High up on the banks of this beautiful water-course, ninety feet above low water mark, in a dry and pure atmosphere, and one hundred and eight miles from Milwaukee, on the Milwaukee and St. Paul Railway, on a level table, lies the village known as Kilbourn City. The Dells proper commence a short distance above the railway bridge, and continue four miles through tortuous windings, by islands, caves, gulches and ravines, and end at what is called the Upper Jaws, where the river widens, and is filled with numerous small islands. A view from the bluff on the west side of the river, extending to Louce's bluff, is beautiful and grand, and from a point a little below, looking up, the scene is very much like that from the head of Lake George. Farther up, on the right hand side of the river, are the wonderful rocky formations known as the Hornet's Nest, Sand Rocks, Luncheon Hall, the Eagles' Crag, and many other noted points, but the country is full of strange and wonderful places that attract the attention of tourists artists, and pleasure seekers, and as the object of these sketches will be to give a full and particular description of the various points of interest, we commence with Taylor's Glen. A charming little ravine, situated within the plat of the village, where the travelers who have but a few hours to spare, enjoy themselves, examine the curious and almost indescribable formations of rocks and caves. You enter by a gradual descent near the new graded school building, and soon you find yourself at the bottom, surrounded by hazel brush, wild raspberries, birch, and other, small trees. Walking along, the passage narrows and deepens, and overhead are projecting rocks and caves where, in years gone by, the bear and wolf had their home. Soon you come to a narrow pass and following along you are almost stopped, but bending down a little you pass through and enter into a cozy little chamber, where the rocks are covered with green moss, and the most delicate ferns and beautiful wild flowers grow, and now the rock banks on either side run to the height of about thirty feet, surmounted by the stately pines growing upon the solid rock to the height of ninety feet. A short distance and the enchanted view widens and opens, and here lies an immense pine tree cast down by a whirlwind across the opening twenty years ago. It is three feet in diameter, and is probably 300 years old. Passing out of this ravine you enter another one, and turning to

the right pass down a few rods and come to another glen similar to the first, only the rocks are much higher. As you proceed the passage narrows, and you come to a cool and delicious spring issuing from the crevice of the rocks; after satisfying your thirst you go through a contracted passage where the rocky walls are forty feet high, traversing it a few rods and examining the caves, and winding path-ways and shelves, you return through your tortuous path to the spring, and passing down a few rods, surrounded by the graceful elm and white-barked birch, you enter another ravine running parallel to the other two. Here the rocks rise higher and the passage is wider, climbing along the declivity you come to Pulpit Rock and after making your speech and imagining that, you sit where the Indian lovers once sat and sang their songs of love, you descend, and a scramble of a few rods brings you to what appears to be a large cave, but it is a railroad embankment tunnel. The timid here prepare to light torches made of sticks of wood or twisted paper, you enter and pass into the darkness, groping over stones sticks and drift wood, for the distance of about fifty feet, when you emerge into daylight, and the beautiful Wisconsin is in view. Ascending the rocky bank about twenty feet you halt and try the double echo. Turning towards the east you give a loud scream or halloo, and it is echoed back and reverberates to the opposite bank on the south side of the river, the last sound appearing to come from the woods at the distance. Climbing about forty feet up the bank and turning towards the west a walk of a few rods brings you to the Echo Rock, where you get a direct distant reverberation, which you can continue at your will as you walk on the high bank of the river towards the town, viewing as you go the lordly pines on each side of the river, admiring the rocky banks, and occasionally a mountain ash growing from a projecting rock. You have now seen the great gulches and canyons in miniature, and have a slight impression of the romantic beauty of the Dells, which, if you do not visit now, you promise to do so at some future time.

There are three ways of viewing the scenery of this wonderful part of the river. Two steamboats take passengers, morning and afternoon, giving visitors a chance to ramble the greater part of the day, among the rocks and ravines. Another plan is, to take a livery team and drive to Sand Rock, view the wonders there and then return in a small boat with a guide to row you into the caves, caverns and gulches and around Steamboat Rock, but if the tourist has time he will hire a guide with a light skiff a clear head and a strong muscle, and be rowed up against the current, and down with it, giving him an opportunity to explore each particular point on both sides of the river.

The first point of interest after leaving your place of embarkation is Angel Rock, on the east side, where the banks of the river begin

to rise. A few years ago an artist carved a Madonna in the sandstone under the projection of the rock, which the boys called an angel, and from that time it has been called Angel Rock, but the peculiar feature of the rock should give it its name, and it should be called Marble Rock, for it is here that the marbles are found. The steambot is run too far from the east of the river to notice the peculiarities that are here found, but passing up in a small boat you notice small round spots of darker hue than the other parts of the rock, and of harder formation; the action of the water and the frost causes the softer portion of the stone to crumble, and these stones or marbles, nearly round, of the size of a pea, and from that to a large grape shot, and of a dark brown color, impregnated with iron, are relieved and roll down upon the ledge, where they are picked up and carried away as mementoes of the Angel Rock.

A short ride in your boat brings you to Swallow Rock, or where the swallows live. The banks are much higher and project at the top, underneath which, and running down to high water mark, are hundreds of swallow's nests, or holes punctured into the yielding rock, from six to twelve inches deep, where these active birds are seen darting in and out with great velocity, with food for their little ones. The outward appearance of this stone varies in color from dark green to the grayish tints, somewhat resembling the pictured rocks of Lake Superior, and gradually rise in height until you come to the Jaws of the Dells, where the river begins to narrow and wind, and deepen, and takes that remarkable and romantic character, for which it has become so noted. On the right the rock is of a yellowish cast, and has the appearance of a castle or fort, and has been named by Bennett, the artist, High Rock. Although high, it does not attain the height of the singular and rugged bluff on the left, which is ninety feet high, and called Romance Cliff. No history is given of any romance or legend by the dusky colored native or the descendants or the pioneers who first ascended the Wisconsin, nor has Longfellow yet appeared to weave one into rhyme. The surface of the upper portion of the rock is for two-thirds of the distance from the top quite smooth, and of a varied yellow and brownish hue, being tintured with iron. There are two seams in the cliff that extend from the top to over one-half the distance down, wide at the beginning and coming nearly to a point at the bottom, making the form of an immense letter V, that has given it the name of Wedge Rock. From the level surface of the highest part of these rocks, on which are found, in their seasons, blueberries and the fragrant wintergreen, a fine view of the river each way and of the distant country around, can be enjoyed, and as the ascent is not difficult the pleasure seeker is well repaid for his labor in climbing the dizzy height.

VALUE OF PINE STUMPAGE. ✓

The fact that Hon. Philetus Sawyer recently sold a single section of pine land to John Lynch and other Oshkosh parties for the sum of \$50,000, is attracting considerable attention, and report has it that the amount paid per thousand feet stumpage is at least \$5.

The tract of land referred to is known as section 11 of Town 31, Range 14, and is on the Wolf river in the south line of towns in Oconto county. Of course the estimates in relation to the amount of pine on this section of land vary considerably in accordance with the judgment of those persons who have examined and estimated. Several estimates place the amount at 14,000,000 feet, and again other opinions place it at 11 or 12,000,000. Taking 12,000,000 as about the average estimate, we find that the 640 acres of land is expected to yield about 18,750 feet per acre, or nearly three times the amount of good average pine. Using the same estimate as reliable, we find the value of stumpage reduced from its estimate of \$5.00 to \$4.17 per M.; not a remarkable price if we consider its location and the fact that such an immense amount of stumpage is comprised within so small an area. That one fact alone would materially enhance its value. As a rule, too, stumpage is usually underestimated rather than overestimated, and we will hazard the opinion that John Lynch and his partners are certain of an amount which will bring the average of stumpage down to close proximity of \$4 per M. The case in question seems to be an exceptional

one, yet we cannot believe that any purchaser would now knowingly pay \$5 per M. stumpage for any pine lands in Wisconsin.

A BATCH OF BLUNDERS CORRECTED.

The Boston (Mass.) *Lumber Trade* has the following concerning the mills on the Green Bay shore:

On the Green Bay, Wis., shore there are over a hundred mills manufacturing more than 500,000,000 ft. of lumber annually, employing 60,000 men, and an invested capital of \$100,000,000. Of shingle mills there are over forty, producing 900,000,000 shingles annually. To give a single example: The Peshtigo company has a mill at the mouth of the Peshigo river that can cut 350,000 feet of lumber in 12 hours, and has done better than that. The average cut for the season is 150,000 feet per day—12 hours. Last year the average shipments by this company to Chicago were 200,000 per day, or 1,000,000 every five days.

To these wild statements the Green Bay *Advocate* responds as follows:

We do not care to belittle anything concerning the business of this section, although we would much prefer the truth. Furthermore, it seems like presumption to dispute anything that comes from Boston. The plain truth is, however, that instead of there being over 100 mills on the bay shore, there are considerably less than 50—we think less than 40. We have not at hand the statistics of the total cut of lumber of these mills, but it must certainly be over-estimated at least 100,000,000 feet. Now as to the men employed, which are stated at 60,000. That is more than the entire population, men, women and children, in all the counties touching Green Bay, according to the census of 1870—that is to say in Brown, Oconto, Kewaunee and Door,

in Wisconsin, and Menominee and Delta in Michigan. The enormity of this blunder will be seen when we consider that but a small portion of the two largest populated counties of this number touch Green Bay at all, and that comparatively but a small portion of the people are engaged in lumbering. The question naturally arises, if all the people and more too are engaged in making lumber, who run those 40 shingle mills and make those \$900,000,000 shingles annually? We notice that some of the papers on the bay shore have copied the above article without comment.

COL. BAUSENWEIN, chief engineer of what is known as the Portage branch of the Wisconsin Central railroad, arrived in this city from Portage on Monday, and will make his headquarters at the Curran House. From him we learn that a party has been at work clearing the track and preparing for the graders on this end for nearly two weeks. He expects to commence grading the last of this week, or the very first of next, and says that the road will be built to Hancock, a distance of 27 miles, this season. It will be necessary to complete this much of the road by the first of February, in order that the company may secure about \$160,000 of county and town aid voted—a little sum that no individual or corporation would care to let slip from their grasp. If this programme is carried out, as we are positively assured it will be, then we shall expect to shake hands with Portage early next summer. Speed the day! This work is being done by the Wisconsin Central Railway Company, and not by the Colby Construction Co.—*Stevens Pt. Journal.*

JOHN MYER, of Fond du Lac, expects to manufacture at his mill at least 17,000,000 feet of lumber during the present season.

LUMBERING IN MICHIGAN.

From the Muskegon Reporter.

From the best information, we learn that logging operations on Muskegon and White rivers and their tributaries will scarcely amount to one-half of that of last winter. There is a large amount of logs in the rivers and booms as yet, millions of which will not be sawed this winter, but be stored in the booms until the coming spring. It has been found impossible to float the immense amount of logs with which the Muskegon river has been filled this season with any degree of success or profit to the owners, and it is presumed that hereafter Muskegon lumbermen will have the good sense to put afloat something less than 25,000,000 feet of logs, as was done last year. As yet but few, if any, contracts have been made for the winter, and unless there is a great change in the money markets, there will be no great call for help from the lumber regions. One of the best-informed lumbermen in western Michigan, speaking of the effect of the late financial panic on lumber interests, said to us that not more than fifty per cent. of the usual crop of logs will be cut in this state the coming winter, and that the effect of such action will be to clean out present stocks, both of lumber already cut, and of logs now hung up, so that at the end of twelve months lumbermen will commence business with clean slates, and with definite prospects for the future.

Up to Sept. 29 the Boom Company scaled 223,946,270 feet of logs, or 1,679,204 logs; they expect to handle before the close of the season about 375,000,000 feet. The rear of the drive is near Croton and contains about 50,000,000 feet.

Since writing the above we have conversed with several lumbermen, who give as their opinion that about 150,000,000, mostly logs, will remain here, and there is every reason to believe the amount to be much larger,

and unless the money panic takes a favorable turn in a few days the majority of our mills will close down altogether, as they can neither sell nor ship lumber except at ruinous prices. A cargo, consisting of some of the best White Lake lumber, was sold this week at \$8 per thousand—about the price paid for logs. A firm here sold a cargo this week for \$11 per thousand, which two weeks ago would have brought at least \$22. At these figures our manufacturers would soon become bankrupt, and they have resolved to stop cutting and shipping until such time as will warrant the resumption of business without incurring financial ruin. A few days will determine whether a few thousand men are thrown out of employment here or not. We still hope for a speedy change for the better.

OSHKOSH and Fond du Lac manufacturers bill large quantities of lumber, shingles and lath direct to consumers and retail dealers in the prairie states west of the Mississippi. The western trade of these two cities is already immense and constantly increasing. That manufacturers can deal directly with consumers is one of the hopeful signs of the times, and is also a partial solution of the question we have often heard asked in the Wisconsin river pinery, "how can Oshkosh men pay as much or more for logs as our lumber is worth?"

THE pathetic ballad of the "Shanty Boy," published and illustrated in our last issue, is receiving more than ordinary attention from the newspapers of the northwest. Already has it been reproduced in several first-class publications. As many more as wish it are welcome to the use of our cuts.

CONGRESSMAN McDILL is erecting a certain of making their business undertakings successful. fine residence at his mills on the Big Plover river.

REPORTS up to October 8, indicate favorable prospects for a successful "drive" on the Chippewa river and its tributaries.

HON. PHILETUS SAWYER is negotiating for a mill site on the Menominee river; as we learn from the *Green Bay Advocate*.

THE Peshtigo Company are about running their machine shop by water instead of steam, as they have an abundance of surplus power for the purpose.

MR. J. JENKINS, of Oshkosh, the head of the large lumbering firm of J. Jenkins & Co., is to start this month for Europe to meet his wife and daughters who are now sojourning there.

WE learn from the *Green Bay Gazette* that Delvaux's mill in the town of Bellevue, was the scene of an accident on October 2d, whereby a fireman named Marique was instantly killed by the bursting of the mill boilers.

H. W. SAGE & Co., one of the most extensive lumbering firms of Michigan, who have 50,000,000 feet of logs hung up on the different streams of the Saginaw valley, have decided, it is rumored, not to cut a log at their Wenona mills this winter.

THE *Clark County Republican* says: The sound young logging firm of Lindsay & Brown has been dissolved, and these enterprising men will go it on their own hook hereafter. They are the kind of men who are morally

The square timber which is shipped from Bay City costs when in the river \$200 per thousand cubic feet, to ship it to Quebec costs \$200 per thousand more, and its reshipment to Liverpool costs \$500 per thousand more, so that at the latter place its cost is \$900 per thousand cubic feet.

THE opinions of lumbermen differ materially when statistical information is in question; but we give unusual credence to estimates of Fond du Lac manufactures, as furnished by so reliable a gentleman as Mr. Alexander McDonald; his opinion of the amount manufactured at Fond du Lac this season, is about 85,000,000.

THE *Marinette Eagle* is of the opinion that lake freights will be materially lessened next season and says:

All lake freights must rate lower. It is estimated that at the various American ship yards on the lakes and navigable rivers tributary thereto, that there is at present not less than 400,000 of tonnage on the stocks. This, when put afloat another season, will give a carrying capacity in excess of the demand, and of course must have a marked effect in diminishing freights.

A LARGE TREE.—A gentleman, while passing through the eastern part of the town of Hartland, recently, discovered the existence of a tree which will almost parallel the giants of California. The tree is a hemlock, found on Sandy McKenna's land. Its circumference is 24 feet 4 inches and its diameter is between eight and ten feet at the stump. What is more remarkable, no other trees have arrived to any more than common size. It is grown upon sandy soil, rather wet, and surrounded by smaller trees of the same species.—*Shawano Journal*.

TIMBER PLANTING IN THE WEST.

C. S. Harrison, residing in May Flower Colony, York, Nebraska, writes in relation to forest culture on the western prairies as follows:

Thousands in the east would like to have western homes. They have heard of the returns which reward the laborer, and the ease with which farming can be carried on by machinery; "but then," say they, "there is the scarcity of timber." Having lived 30 years in 5 western states, we are prepared to say something of our timber prospects.

Timber with us grows with wonderful rapidity. Thirty years ago people made the same objection to going to Illinois which they now make to going to Nebraska; but notwithstanding the wood that has been burned, and the millions of railroad ties which have been furnished, there is more timber in Illinois to-day, than ever. All through Nebraska timber planting is an enthusiasm. Every farmer plants. Stock companies plant large tracts; and railroad companies are raising timber. Millions of trees are annually set out from the forests, and hundreds of nurseries are propagating on a grand scale. One firm raise over twenty millions of coniferæ alone, and cannot supply the demand. One patent office report estimates that 150,000 acres are annually planted to timber. Last year one-third more trees were planted than two years ago.

Tree culture has proved a success. It is no uncommon thing to see groves of evergreens in the heart of a once bleak prairie. Coniferæ succeed much better in the loam of the west, than in their native Michigan or New York. Arthur Bryant, of Princeton, Illinois, brother of the poet, has a great variety. Some of his evergreens are forty feet high, and five feet in circumference, though only twenty years old. Mr. Schofield, of Elgin, has European larches fifteen years old, forty feet high, and a foot in diameter—capable of making two railroad ties and two fence posts, to the tree. A few months ago we visited Mr. Edwards, one of the tree planters of the west and it seemed as though the wand of a magician had passed over that prairie land. What a transformation had been produced in a score of years! Walks wind through his grounds embowered with perennial green. Here

are firs which you would think half a century old; there, pines large enough for house timber; and the Norway spruce, serving as stable for fowls and cattle. Many cattle raisers are planting evergreens for the protection of their stock, and the shelter is so complete that a few dollars save the expense of a barn. The Norway spruce, by its foliage, with limbs overlapping, is especially adapted for stock shelter, and we have seen a hedge of this tree, six years planted, and four feet apart in the row, so interlaced that the snow could hardly blow through it.

In Iowa and Nebraska, fine artificial forests diversify the once unbroken prairies; and we have seen soft maples so thrifty, that after six years, ten acres would supply a family forever. Black walnut, sixteen years old has yielded at the rate of forty cords of wood per acre. Cottonwoods, fifteen years old, are found that will yield a cord to the tree. In one instance a row of Lombardy poplar, ten rods long, and twenty years old, yielded twenty cords of wood—two cords to the rod. White willows, set out as a hedge, soon yielded ample returns of fuel.

There is an alarming prospect for the northern forests. Having visited the centers of our lumber trade, we find that seventeen years will complete the destruction of our pineries. Soon after our pine is gone, our hard-wood forests (which now supply our manufactories, our agricultural enterprises and car works), will also be destroyed.

Thirty years will, inevitably, see the east denuded of timber, while groves, large enough for building and manufacturing purposes, will adorn the west. If properly tended, trees will grow to a good size in thirty years. There is a great difference between a natural and an artificial forest. Before us, as we write, is a section of Scotch pine, thirteen years old, and thirteen inches through, and the tree was thirty-five feet high. Go into artificial forests, and you will find that trees often make a diameter of one inch a year, and a height of two feet; and we have known white pines to grow even three and four feet a year. The soft woods sometimes show a yearly circle of an inch in thickness, giving a diameter of two inches a year.

We must plant them both east and west. The ease with which our western soil can be cultivated, its freedom from stumps and stones, and its cheapness give every advantage to the western

planter. But it is said that there are beds of coal at the east; so there are in the west. Illinois, Iowa and Nebraska appear to be well stored with coal.

But too much reliance should not be placed on coal. It does not grow, and consequently it must ultimately become exhausted. England supposed she had a supply for a thousand years; but last summer a coal panic so severely affected the industries of that country that the shock was felt almost all over the world.

The only trouble with the fuel question in Nebraska is for the next few years. We can raise wood in that time. There is a grove of cottonwood in Seward county which, when only four years old, showed trees four inches through and fifteen feet high; and if there had been ten acres of it, it would, from that age, have yielded a family a perpetual supply. Cottonwood from the seed often springs up in corn fields, and grows as high as the corn, (six feet,) the same year. "Well, for the next five or ten years what will you do?" The herd law obviates the necessity of fencing, yet the people are planting fences, which cannot blow down and do not rot; and, harsh as it may sound to eastern ears, corn makes an excellent fuel. It is ascertained that a pound of corn is worth as much as a pound of coal; and there is generally such a plethora of this commodity that it can be had for fuel much cheaper than many an eastern household can be supplied with coal. The question of pressed fuel, from weeds and straw, is now being agitated; and in western Iowa, compressed hay is already used. Seedling forest trees are furnished at from \$2 to \$10 per thousand.

In the United States land office at Lincoln, more than 25,000 homesteaders and pre-emptors, have filed claim to prairies, and nearly 3,000 others have bought them of the Burlington & Missouri river railroad on ten years' credit, six per cent interest; and on contracts since 1872, no part of the principal payable, till the beginning of the fifth year.

Notwithstanding the hardness of the times, lumbermen are already beginning to go into the woods, preparatory to accomplishing a good winter's work. Trask, McArthur & Co., of Winneconne, went in with a large crew of men, the first of the week, and we learn that H. H. Martin and Con. Crowley, of this village, will follow in a few days.—*Shawano Journal*.

THE STURGEON BAY CANAL.

From the Green Bay Advocate.

In Col. Martin's report to the governor upon his inspection made as to the work now done on the Sturgeon Bay Canal, he states the whole amount of excavation to be done at 998,400 cubic yards. This includes the grubbing and clearing, which is equal to 38,400 yards; excavation proper, in order to get the depth and width of the canal, 860,000 yards; and to allow for caving in of banks, 100,000 yards. These quantities are calculated for a canal of 13 feet depth, 100 feet wide at the water line, with slopes of 2 base to 1 perpendicular, the water level to be taken at the height of low water in 1847, when it was lower than for many years previous and since that time.

The following is the work thus far accomplished:

6,400 feet of line grubbed and partially cleared, equal in excavation to cubic yards.....	15,000
Amount thrown out by dredge.....	141,000
Dry excavation.....	99,000

Total cubic yards excavated. 255,000

Being 5,400 cubic yards over one-quarter of the entire work.

Col. Martin reports that the work thus far has been, in his judgment, performed in a satisfactory manner. The material dredged from below the water line has been removed by scows a long distance from the line of the canal, and deposited where it will not be liable to interfere with navigation in the future. That excavated above water has been thrown twenty feet back from the top of the cut on either side, so that in the case of sliding or washing in of a portion of the banks from heavy rains, the excavated material would not be carried back into the canal, requiring it to be removed again.

The results so far show, states Col. Martin, that of the two miles of canal to be made, one mile at the western terminus (namely, from the point in Sturgeon Bay where the work first commenced, to the shore line of the bay) has been so far completed as to afford a depth of 11 feet of water. From the short line inland, for a distance of 900 feet, a channel has been made by wet and dry excavation affording a depth of 9 feet. At different points along the line across the peninsula large amounts have been taken out and deposited as mentioned above. One cut, 1,700 feet long, about midway between Sturgeon Bay and Lake Michigan, and extending through Buffalo Ridge, the highest point on the line, has been made, with a width at top sufficient to give the prescribed width of 100 feet at the water line.

It is estimated that the season's lumbering business on the lake shore, exclusive of Alpena, will aggregate 160,000,000 feet, or one-third less than last year.

LUMBERING AFFAIRS ON THE BLACK RIVER.

THE "BLUES" ALL PERVADING — A LOCALITY THAT HAS LOGGED AS HIGH AS 300,000,000 PER YEAR, WILL PUT IN BUT 50,000,000 THIS WINTER—LUMBERING OPERATIONS GENERAL REDUCED AT LEAST SEVENTY-FIVE PER CENT.

Editorial Correspondence Wisconsin Lumberman.

BLACK RIVER FALLS, Oct. 20, 1873.

The recent financial panic falls heavily and crushingly on the lumbering interests of Wisconsin, and we have to-day realized more fully than before the great difficulties and disadvantages to which manufacturers and loggers have been subjected by the two-fold incubus of ruinous prices and a sudden and remarkable monetary stringency. Many prominent lumbermen will not even attempt to put in a log this winter; others, in order to keep teams already on their hands busy, will log just sufficient for that purpose, while a few contractors will fill their present engagements with no idea at present of forming new or more extended contracts. The opinion of most careful business men is that not over 50,000,000 in logs will be cut this winter on the Black and its tributaries, where the annual product of late years has been from 250,000,000 to 300,000,000. Lumbermen now holding logs in the lower booms of the Black river will prefer seeing them remain there until more favorable prices shall tempt an outlay for further handling. The information that not over twenty-five per cent. of the usual logging operations will be here carried on, may be considered perfect-

ly reliable, for the estimate is rather above than below the general opinion expressed by competent business men. Notwithstanding the unusual depression in business affairs however, this little city of 2,500 inhabitants seems bustling with activity and gives evidence of determination to improve its location and advantages for future, growth and prosperity. The one great lumber manufacturing establishment of the place is that of D. J. Spaulding. Mr. Spaulding annually handles from twelve to twenty millions on the Black, while his interests on the line of the Wisconsin Central and on the Mississippi are also extended. Mr. S. argues woeful prospects for the next season unless unforeseen good fortune steps in to the relief of present difficulties. In our own judgment, the very fact of present inability on the part of lumbermen to engage in extensive labors this winter, will be the panacea of present ills.

SAW MILL REFUSE AS A BLAST FURNACE FUEL.—A furnace for the manufacture of pig iron with charcoal made from slabs and edgings from saw mills, was built here last winter, and is now in active operation, proving a perfect success from the time it went into blast, which was some three months since. The furnace is 9 feet bosh, and is now making over 130 tons of iron per week, at a consumption of about 135 bushels of coal to the ton of iron made. There has not probably been 100 bushels of hard wood coal used since the beginning, and fully nine-tenths of that consumed was made from the mill refuse. This arrangement has produced the double effect of not only utilizing a waste material but is saving our mill men considerable sums heretofore expended in getting rid of their surplus, while the furnace is probably making iron cheaper than any other in the northwest.—*Menominee Herald.*

THE LUMBER TRADE OF STEVENS POINT.

ITS PRESENT VOLUME AND ITS POSSIBILITIES—THE COMING CHANGES IN THE TRADE OF THIS SECTION—THE SYSTEM OF RAFTING TO BE SUPERSEDED BY RAILROADS—THE ADVANTAGES TO BE GAINED BY WISCONSIN LUMBERMEN.

Editorial Correspondence Wisconsin Lumberman.

STEVENS POINT, Oct. 20, 1873.

There are in this place within a radius of three miles from the public square, 9 saw mills with a capacity of at least 70,000,000 annually. Within the city limits are three planing mills and sash, door and blind factories.

The number of lumbering firms residing in the city is at least 50, consisting of

Balley, D. C.	Karnes, S. H.
Blake & Mitchell,	Kelly Bros.
Benson P. & Bro.	Knox, Bros.
Burns, Thompson & Co.,	McCulloch, H. D.
Brown, F. D.	Moe, Louis I.
Burr, Emmons & Co.	Martin, John R.
Blow, Louis	Lester & Plummer
Campbell, P.	Park, G. L.
Clark, Owen	Pike, E. L.
Cooper, B. F.	Perry, I. & J.
Cronkrite, Plummer & Co.	Quinn, Jas.
Clements, D. R.	Rennis, John
Cook, Cornelius	Richardson, Chas.
Curran, H. & J. D.	Rouseau & Stevens.
Clifford, Wm. J.	Redfield, John
Callahan, Chas.	Scott Bros.
Gilehirst, A. B.	Sheckels, Wm.
Goodhue, Geo. J. Jr.	Walker & Wadleigh
Gamble, Ross	Woods, Jas.
Hungerford, Seely	Whitney, Ebenezer
Hutchinson & Bro.	Wade, Geo. & Co.
Homestead, Seth	Warner, John
Isherwood, J. & H.	Welch, Adam J.
Johnson, J. O.	Wheelock, O. C.

An almost unlimited water power is located by the construction of a dam at the head of the Shaurette Rapids and is at present used only by a grist and saw mill. This power is particularly adapted for the favorable location of woolen or paper mills or for the establishment of wooden-ware factories; probably no locality in the west offers equal natural advantages for such investment of capital.

When railroads from the south and west penetrate this pinery we are convinced that the present system of rafting and floating lumber to market will be almost entirely given up. Millions upon millions of the lumber now run in rafts will be dressed and seasoned here and orders from the prairie states west of the Mississippi will be filled and shipped direct from the mills where the lumber is manufactured. The necessity of selling in bulk to the Mississippi lumber merchants will be obviated and our lumbermen will become the actual retail dealers; for of course it will be just as easy for a Nebraska or Kansas man who wishes a car load of lumber, to send his order here as to give it to the "middlemen" of the markets on the Mississippi. This change in the system of selling will be of vast benefit to lumbermen in Wisconsin as they will not only save the per cent now made by those who buy at wholesale, but will also enable them to handle their money over and over again each year, while under the present system a lumbermen only expects to get full returns from an investment once in two years. The most prosperous times for those engaged in the manufacture of lumber is yet to come.

Philetus Sawyer recently sold 7,900 acres of pine land in the Chippewa valley for \$79,000, or \$10 a acre. When Sawyer buys pine land from the Indians or from government he goes into a ring and gets them for from \$1.25 to \$3 an acre. When he sells 'em he gets what they are worth.—*Milwaukee News.*

Why not? If a man buys a colt for \$50 and after a year or so sells him as a horse for \$150, is it anything to growl about?

GOVERNMENT TIMBER.

From the Laramie Sentinel,

We have been engaged for several days trying to lay before the public a true statement of the case in relation to the stumpage tax. The first act ever passed on the subject was March 1st, 1817, and was for the protection of timber on naval reservations only, and only to prevent the cutting of live oak and red cedar. This act was amended by repealing a part of it May 15th, 1820, and again amended February, 1822, by extending it to the newly acquired state of Florida. In March, 1827, an amendment was added, giving the president authority to see that the law was enforced by employing the land and naval forces for that purpose.

In March, 1831, another act was passed on this subject, but only applied to the cutting of red cedar or live oak, or cutting on naval reservations, of any other timber suitable for ship building.

No other or further legislation was had on this subject, till March 3d, 1859, when an act was passed forbidding the cutting of timber on military as well as naval reservations. The query naturally arises why, if former acts forbade the cutting of timber on any of the public lands, it should be necessary to enact a law especially to protect military reservations. Since the act of 1859 there has been no legislation by congress on the subject. All the law that exists, except the above, is in the decisions and constructions of courts and officers of the government. We will give so much of it as is applicable to our case here. In regard to the question of seizure, the court held in the case of the United States vs. Schuler, that only the felled trees or logs therefrom could be seized, and that lumber, board and shingles, or anything manufactured from the logs or trees, was not subject to seizure.

In regard to the punishment of trespassers, the supreme court decided that "an indictment must state the locality where the trespass was committed, describing it according to the United States survey;" and the court added, "the locality of the trespass is inseparably connected with the offense, and therefore the particular section or quarter section, must be stated, so as to protect the defendant from another trial for the same offense." How, then, could a person be

indicted and tried for cutting timber on unsurveyed land?

There is but one other class of authorities bearing on this question,—the decisions of the land commissioners and attorney generals, and these, though not always law, are worthy of consideration.

The first opinion given on the subject was by Attorney General William Wirt, May 27th, 1821. He said: "Independent of any positive legislation, I apprehend that in relation to all property, real or personal, which the United States are authorized by the constitution to hold, they have all the civil remedies for the prevention or redress of injury which individuals possess." Attorney General Taney in 1833 cites and endorses this opinion, and the courts of the United States have generally held the same doctrine.

The way this power has been used, and the law construed and applied, may be best gathered from the instructions given by Commissioner Edmonds, May 17th, 1864, to the register and receiver of the land office of Nevada territory, and which are the same instructions now furnished to the land officers of this territory for their government. The commissioner in his letter of instructions says:

"To subordinate and reconcile the necessities of settlers of new territories to laws restricting the free enjoyment of timber, so essential to man in every stage of society, will require a generous and discreet administration of power by those in the service of the government.

"While it is conceded that the executive officers have no dispensing power, [*i. e.*, power to disregard, abrogate or dispense with the law.—*Ed.*] yet the condition of the people in new settlements must be considered, and necessity be permitted momentarily to rule.

"You will, therefore, deal directly with the settlers, and only in instances where the public interests demand the enforcement of the law will you seek its assistance.

"The importance of a supply of timber where timber is so scarce would seem to invoke protection in order to preserve it, and prevent waste, but as the timber is chiefly found in the mountain slopes, on land not adapted to agriculture, it becomes a question to what extent restrictions to its enjoyment shall be imposed on settlers in the territory.

"Where land settled and pre-empted

is destitute of timber, the settler must ex-necessity, be permitted to take timber from the mountain slopes, but solely for domestic use. Otherwise the plains could not be settled." [Yet Winsor informs us he compelled the citizens of Cheyenne to pay tax on their firewood in their door yards.—Ed.]

The commissioner goes on to say: "In the case of persons who have invested in saw mills, and are reaping large profits from the necessities of the settlers, they must pay a reasonable tariff per 1,000." etc. [We would like to hear of one of that class of mill-owners.—Ed.]

Section four of these instructions reads as follows:

"Under no circumstances will you compromise or compound with any such trespassers, [timber cutters.—Ed.] or receive any pay or compensation from them, as an acquittal, or discharge therefrom, or in any other manner, neither will you give permission to cut timber, or otherwise trespass on the public lands, as there is no authority for any such proceeding, but all such offenses against the law must be prosecuted."

So it seems parties who have or may pay stumpage tax, are just as liable to prosecution as if they had refused to pay it, and would be so prosecuted if the officers were as zealous in the discharge of that duty as in collecting the tax.

Now we quote quite at length from these instructions, because it is by them that the land officers here are professing to act and be governed, and it will be seen that both the laws and the instructions are meant to be liberal to the pioneer settlers of the great plains, and that neither ever contemplated oppressing the people and retarding the settlement of the country by such a stumpage tax as we have been compelled to pay in this young and weak territory, and which has been paid by no other people in the whole history of the country.

Some idea of the rate at which the forests of the northwest are falling beneath the axe of the lumberman, may be gathered from the following: "The total amount of lumber run out of Cass river, Michigan, this season, is about 80,000,000 feet, out of the Au Gres 60,000,000 feet, out of the Rifle booms 60,000,000 feet, and out of the Saginaw river 75,000,000 feet.

STAVE TRADE OF MICHIGAN.

From the Saginaw Enterprise.

The acknowledged excellence of the oak in the Saginaw valley for ship timber, is applicable as well for staves, and this branch of industry has been prosecuted to a large extent for the past several years. The staves that go by water from the river are cut in Saginaw, Genesee, Tuscola, Gratiot, Huron Bay and Midland counties. The larger portion of the product goes to New York from which point they are shipped to Cuba, England, France and Germany. Extensive shipments are also made from here to Kingston, Tonawanda, Clayton, and some few to Collins Bay. Those going to Canada mostly find their way to Quebec and thence to Europe. Two years ago several cargoes were shipped from Cleveland direct, to Liverpool, and one or two cargoes were shipped this fall to that point without reshipment. The exports of staves from New York to foreign countries in 1870 aggregated 9,247,248; in 1871, 7,259,262; in 1872, 13,718,035. The value of the staves shipped from New York last year was estimated at \$1,426,474. Last year the trade was favorable to both buyers and shippers, and a larger amount was handled than during previous years. The hard times and stringency of money will probably curtail operations this year. Considerable many staves are shipped from ports along the shore between here and the St. Clair river. The amount shipped from points in this state outside of the Saginaw Valley, last year are as follows:

Detroit.....	2,102,000
Port Huron.....	1,536,900
New Baltimore.....	184,900
Lexington.....	234,000

Total..... 4,026,900

On the line of the Saginaw Valley & St. Louis Railroad about 2,000,000 staves were gotten out this year.

The following is a comparative statement of the amounts of staves shipped from the Saginaw valley by water during the years named:

1860 to 1865 inclusive.....	3,000,000
1866.....	3,500,000
1867.....	4,919,000
1868.....	5,849,858
1869.....	3,720,000
1870.....	5,698,000
1871.....	3,820,000
1872.....	8,663,000
1873, to date.....	5,737,348

It will be seen that the shipments last year exceeded those of this year 2,726,348, and although the season is not yet closed,

it is quite probable there will be a decrease of at least two million in the year's shipments from those of last, the trade being nearly over. The freight on staves to Buffalo and Tonawanda this season from the river, has ranged from \$23 to \$25 per M. The cost of the staves delivered on board is about \$80 per m., from which some idea of the capital invested in this branch of industry may be gained.

THE WASTE OF TIMBER.

The *New York Evening Post* is possessed of views in relation to waste of timber now going on, similar to those recently expressed by the *New York Times* and other sagacious and well informed eastern journals. We quote :

For the last twenty years coal has been so plenty and so cheap in this country, as well as in Europe, that little attention has been given to the supply of the more ancient staple in fuel, wood. Yet the price of wood has risen in most parts of this country with a rapidity much more alarming than that of coal. This has been due to the reckless manner in which the farmers and lumbermen have wasted the forests; having an abundance of land, and more than they could make useful in their lives, the future seems to have had no place in their thoughts. The result is that many even of those who own large farming estates are now obliged to purchase fuel or destroy the "second growth," which is just beginning to promise fruits for their successors. Hemlock forests are destroyed merely for the bark; the tallest pines and oaks and maples have been cut away for a few feet of "clear," while nine-tenths of the wood is left upon the ground never to be used. Hundreds of miles inland, beyond the markets, the general condition of our forests is one of waste and desolation, and in many places, when the farmer undertakes to work the land, he finds that one of the sources of income has already been exhausted, and that even for his own fuel and building material he must look elsewhere, or depend upon the slow development of the growth. The supply of wood in Europe is no more encouraging, for although the people there are less reckless and wasteful, the dense populations of the different countries could not long be supplied with fuel from the forest.

The two countries most interested in this subject are the United States and Great Britain, because they are the most largely engaged in the development of industries dependent upon cheap fuel. England alone appears to be in great immediate danger, for the area of its coal mines is much less than that of the United States. That country looks with hope, to be sure, upon the reported discovery of rich and extensive coal fields in India; but it must be recollected that the transportation of coal for thousands of miles involves a great outlay, and at once supposes a serious demand; it can never become possible except under much higher prices than now rule in Europe or America. As to this country, it can postpone the day of short supply even after Pennsylvania shall be drained, because the western states are sprinkled with coal beds of limited depth, and Nova Scotia could help the eastern states for many years. But it is evident that the question of the fuel supply of the future is one which will grow in interest here, as elsewhere, as the nineteenth century approaches its close.

A SCARY LUMBERMAN.—The *Marinette and Peshtigo* (Wis.) *Eagle* gives these particulars of a very singular tragedy :

On the night of the 12th inst., Andrew Manfester, an employee of the Peshtigo company, was up on the north branch of Beaver Creek, in company with three or four other men, and a little over a mile from camp when it became dark and night closed in. They started for camp and on the way bravely amused each other with wolf and bear stories until their imaginations were well wrought up, when suddenly, like a "clap of thunder from a clear sky," they heard the dismal sound of wolves close by them. This frightened the whole party and put them to flight. Mr. Manfester immediately went into fits. One or two of the others stayed with him till the rest went to camp and procured assistance. They carried him into camp and administered what they could to his necessities, but he died during the night.

These are the facts of the case as they were told us. The body was brought to Peshtigo and decently buried on the 14th—many of his friends attending the funeral. We believe Mr. Manfester was a native of Canada, and for all any one knew was a healthy man. He had worked here for about three years.

A CHAPTER FROM THE HISTORY OF THE FUTURE.

We clip from an exchange the following suggestive paragraph :

"A few years ago Williamsport, Pa., sent the product of her numerous mills to middle-men at Philadelphia and Baltimore in the rough, on which they could realize but little, if any, above the labor expended, and were fairly pleased with that much favor until depression in city demands brought prices far below actual cash outlay, when the mill men were driven volens volens to change the market venue and the role of preparations, and found that by fitting the material into shape and making what the builder and mechanic required for immediate use, they could sell direct to the consumer, realizing a fair profit without the aid of middle-men. The middle-men themselves must then become bona fide buyers at fixed prices or step one side. Such hints were acted upon and the legitimate result was, that planing-mills, sash, doors and blinds, and other wood working establishments sprung up like magic, and none too fast either, till their number fairly equaled the original tale of mills, and this day (as has been the case for seven years) not a car load is shipped from that city without actual sale, while the town, through such action, has rivaled the romantic tales of the Arabian Nights Entertainments, by its rapid stride from an insignificant Dutch borough, to the reputation of a wonderfully fine city of 22,000 inhabitants with perhaps more palatial residences and blocked streets than any other city of like dimensions in the United States, a gem of the "first water" set in grand old mountain scenery! And its impoverished lumber-makers, scarce able originally to pay a simple tax, are now grown into, and occupy the position of monetary kings; where hundreds of dollars told the whole city tale (and sometimes exaggerated at that) now hundreds of thousands, even millions, fail in the full truth."

That is what will happen here when the Chippewa valley railroad creates a home market by facilitating transportation from one part of the Chippewa valley to another. Instead of sending our lumber to St. Louis and other places below, we shall sell it seasoned and otherwise to home consumers, and instead of burning up the whittlings as we daily do by mountains at a time, we shall have a board of trade with

tub, pail, sash, door, blind and every other kind of wooden ware manufactories, gobbling up every atom. The railroad will be opened next year, from which it may be readily inferred that the Eau Claire, with only ten thousand inhabitants, was not in vain laid out over an area adapted to the accommodation of fifty thousand.—*Eau Claire Free Press.*

THE Winona Republican says: A sale of pine land of a magnitude worthy of a passing notice has just been made by the Hon. Philetus Sawyer, member of congress from the Oshkosh district, Wisconsin, to Messrs. Laird, Norton & Co., of this city. In the trade, Mr. Sawyer closed out to these gentlemen all of his pine land on the Chippewa river and its tributaries, amounting to 7,900 acres, the price paid being the sum of 70,000, or ten dollars per acre. We understand that this is one of the finest tracts of pine on the Chippewa, having been selected a number of years ago with great care, and there can be no doubt that the trade will result greatly to the advantage of the parties making the purchase. The tract is estimated to contain eighty millions feet of pine, and, together with the lands already owned by Messrs. Laird, Norton & Co., will furnish their mill with a full supply of logs for years to come.

SAWYER'S PURCHASE.

Congressman Sawyer recently sold 7,900 acres of pine land in the Chippewa Valley for \$7,800, or \$10 an acre. When Sawyer buys pine lands from the Indians or from government he goes into a ring and gets them for from \$1.25 to \$3 an acre. When he sells 'em, he gets what they are worth.—*Milwaukee News.*

Mr. Sawyer purchased this property at the land sale in Eau Claire during 1868. The land averaged him \$4.20 an acre. He has paid since then \$2,000 for taxes on the same, which, with the ordinary risks of fire, tornados, etc., would leave the profits anything but large. The sale at Eau Claire was a public one, and if it afforded extraordinary opportunities for making money, the *News* editor should have invested. He could have had the same opportunity that Mr. Sawyer, or any other lumberman, enjoyed.—*Chippewa Herald.*

GROWTH OF PINE TIMBER.

Mr. E. D. Coe of the *Whitewater Register*, in a congratulatory letter to the *Wisconsin Lumberman*, says :

I see you take the grounds that our pine timber will soon be exterminated at the present rate of destruction. It seem to me that you are right, but Wilson, the leading lumberman of the Chippewa, once testified before a legislative committee that the annual growth of pine in the Chippewa Valley exceeded the capacity of the river to carry it off, and stated that the same was true of the most of the other Wisconsin pineries; and hence drew the conclusion that the amount of timber would increase until railroads penetrated the pineries. I should be glad to think he was right, however, for our pineries are better than gold mines while they last.

Pine timber grows, it is true, with astonishing rapidity, and in twenty years eight and ten inch trees will become fair logging timber. But when we come to consider that upwards of one billion feet of lumber alone is the annual product of our pineries it is evident that the growth is nothing in comparison to the amount destroyed. We claim as a fact that the growth, in order to keep pace with the cut, would be at least one-fortieth annually of the entire amount of pine in the state. Indeed, we doubt if the annual growth of pine in Wisconsin equals the annual waste. The process of burning slabs and cull lumber as is now the style in many different localities, seems an almost criminal waste of material. We shall expect to chronical, in time, that even what has heretofore been considered valueless will be utilized in lath, strips, &c.

LUMBERING.—It seems clear to us if lumbermen consult their own interests they will cut but a very small amount of logs this winter. An examination of the

amount of timber gotten out last winter, and a comparison between that amount and the amount delivered at the booms, will disclose the fact that an immense quantity of logs still lie in the main streams and their tributaries. This being the case, with the additional fact that "the times are hard," that money is scarce, that the price of lumber is exceedingly low, and the stocks of sawed lumber now on hand are usually large, it cannot be prudent for our lumbermen to enter largely this winter into the business of cutting logs. A year of inactivity will restore a healthy balance in favor of our lumbermen. A year of inactivity will restore a healthy balance in favor of our lumbermen. A year of their usual activity will, in our judgement, be most disastrous to the lumbering interest. There is such a thing as overdoing any business. We are glad to know, however, that lumbermen generally see the necessity of a masterly inactivity the coming season.—*Eau Claire Free Press*.

THE following item from the *Stevens Point Journal*, shows what the Wisconsin Central is doing towards developing the Northwestern portion of Wisconsin: "Here is an evidence of how railroads help to develop a country. Last April Mr. David L. Kean, a former resident of Stevens Point, settled on a piece of land on the line of the Wisconsin Central Railroad, and fifty miles from this city. Settlers commenced to flock around him, and already the stillness of nature has given place to a smart village, called Colby. The village now contains one hundred and fifty families, three stores, two hotels, a restaurant, a flour and feed store, meat market, two boot and shoe shops, a clothes pin factory, a shingle mill, saw mills in full operation, and a good depot building. A building is now being erected for a drug store, and other acquisitions are in contemplation. The country around Colby is said to possess a good soil, good water, good timber—in short everything that goes to make up a rich country, when once developed."

LIFE ON THE SAGINAW.

LOG RUNNERS AND RAFTSMEN—THEIR COSTUMES AND HABITS—THEIR MORALS AND THEIR VIRTUES.

From the Saginaw (Mich.) Enterprise.

The Ice King will shortly lay his fetters upon the river, and with his grip upon its waters depart some peculiar phases of local life, that lend a characteristic charm to the peculiarities of this section. Our river sluggish and unpretending as the stream may be, is nevertheless our great artery of commercial life, feeding as it does the mills, and freighting to the market the staples of our production. It affords employment directly to a large number of people, and offers sights as peculiar, and in their way as picturesque as any stream in the world. By far the larger class of its toilers are the log-runners and raftsmen. These are a class peculiar to themselves and their avocation. We have not the slightest idea what becomes of them. They are never old, always young, stalwart, and lusty, great bronzed fellows, with broad, deep chests, sinewy arms and limbs, and a free and easy air that tells plainly of their untrammelled lives. We never heard of one dying, and as they are all in the full bloom of manhood, and seldom leave the river to engage in other pursuits, we are prone to think them possessed of the secret of perennial life. A coat is a needless luxury seldom indulged in, save on state occasions;—such as an evening with some fair one, or incident upon some great "blow-out" among the boys. In native costume a broad brimmed slouched hat crowns their person; a flannel shirt, swung open at the collar and generally with some flaming device worked upon the breast, encases their body, and a pair of pants stuck into boots that reach to the knees, and upheld at the waist with a gaudy, buccaneerish sash of bright colors completes their toute ensemble. We see them constantly drifting down stream on their rafts;—now prodding away at the bottom of the river with a long pike-pole, and then again lazily contemplating life as they sit at ease and watch the flow. They must be philosophers, these raftsmen. They all wear such a deeply uninterested look about the cares and passing events of this world, as they lazily balance themselves, sitting on the drifting logs. A

free and easy set are they. Their morals are few, but their virtues many. Generous and open-hearted, careless of trouble, no economists, and at all times open to the enjoyments of life, they apparently become imbued with the placid, happy-go-lucky nature of the stream they exist upon.

Canoe and batteau life on these waters will soon be over for the season, as will also the "sand-fishers." They do considerable good to the channel too, and have made quite a hole in the bar just this side of the railroad bridge where a few years ago the flag and water-weeds grew in rank profusion. Generally three men operate a craft, one to manage and direct the scoop, and the other two to hand-organ it out at the windlass. They make money, and they earn it; for the work is by no means light. The water side cottages; those amphibious looking, half in the water and half out, that are met with along the river and greatly relieve the monotony of its quiet, even tenored way, will also have to take up their bed and walk, or wait for a spring tide to take them down to Bay City and form another local improvement to that enterprising burg. It must be a happy life to lead, that in those floating palaces. No going out o'nights there. Home propensities must predominate, and for a man of large family there are many flatteasing inducements. No water to tote in for blue Monday; no complaining of drought; and just to think of the convenience where there are a dozen or more little responsibilities, to go in and take them out by sections and hold them by the heels, like juvenile Achilles, head down in the water at your very doorsteps, for morning ablutions.

H. W. Sage & Co., of East Saginaw, Mich., we understand, have decided not to cut a log this winter. This is one of the most extensive lumbering firms in the northwest, and their determination will have considerable weight with others. Sage & Co., have 55,000,000 feet hung upon the different streams in the Saginaw valley, and therefore will have no anxiety of a supply of logs next season.

The *Clark County Republican* says: Follet says that out of a lot of 10,000 manufactured at Schofield's mill near Greenwood, which he purchased recently, there was not one poor shingle to be found.

OUR TREES AND THEIR CHANGES.

From the *New York Star*.

We have time and again referred to the important question of the decline of our forests, and urged the planting of forest trees by companies or individuals, in a methodical way. A scientific writer who seems to find good in everything, says however that small as the destruction of forest trees is, it will doubtless add several per cent. to the deciduous trees of New England, and remove an equal amount of conifers. The conifers seem to be relics of an old time, and not competent to wage a successful war with their younger and more elastic competitors, the oaks, beeches and other deciduous trees. Every gap that is made in our forests of cone-bearing species is filled not with their legitimate successors, but by forms from the other class of trees. Let us suppose that the shock of the last season had been great enough to kill off the whole of our pines, the result would have been a complete change in the character of our forests; oaks generally would take the vacant place. This would affect the character of the undergrowth very materially, for the lesser plants of a pine wood are very different from those which flourish beneath oaks. This would have had a very great effect upon insect life, and more or less directly influenced the number and character of the birds and the animals. Even the climate would be in some measure influenced, for a pine forest retains the snow better than one which loses its leaves in the winter, and thus tends to secure a more equable temperature in the region where it lies. Thus we see that an accidental drought might bring about a change in the assemblage of vital conditions on the surface of the land, as great as those which, when recorded in strata, we accept as indicating distinct geological formations.

The "scientific writer" who seems to be the authority of the *New York Star*, is apparently ignorant of a simple fact that is familiar to every Wisconsin lumberman, namely that pine again succeeds hard woods, just as hard woods in the first place succeeded pine. Deciduous trees are really the "legitimate successors" of

pine. After a crop of this character, nature supplies the elements for the production of conifers. This is a fact which is rarely taken into account by the multitude of "scientific writers" who talk so lugubriously about the destruction of pine timber. As a matter of fact it appears that nature believes just as firmly in the "rotation of crops" as the most scientific farmer.

TIMBER TRADE OF CANADA OVERDONE.

From the *Ottawa, (Ont.) Citizen*.

Saw log-makers are at present engaging to go to the bush at as low wages as \$13 per month, and in some rare instances at lower figures. We have not noticed wages at so low a pitch for some years. We trust that proprietors of saw mills and timber shanties will not be induced by the cheapness of labor to increase their operations this season so as to glut the market again, as it would be as great a detriment to trade to overdo it as to reduce it too much. From appearances we would infer that the work of making in both lines will be curtailed this winter, and much more so than contained in the resolution adopted by the square-timber merchants, published a few days ago in the *Citizen*. There are men who are among the largest timber manufacturers on the Ottawa, who have not sold one stick of their timber this season, and have not sent one gang of men to the woods for this winter's work. Some makers have merely sent enough to the woods to consume the supplies at their depots, which have lain there since last year. We contemplate and earnestly hope that the present flatness in the lumber line will bring about a marked improvement, and a great benefit will, in our opinion, result from the present stagnation. As the lumber trade was conducted, a great many persons with capital of their own, and those who could borrow money rushed headlong into the speculation, fancying that they had but to touch lumber and they were rich men. Mills were built in every direction, and a great amount of borrowed capital consumed in their erection. The banks noticed this

some months ago, and foreseeing the result, refused indiscriminate accommodations to aid in furthering the lumber trade, either as referred to bush operations or the manufacturing into season material. We would not wish to discourage lumbermen, but merely explain how, and whence came the stagnation. Lumbermen have been paying ruinous wages to men in the bush, and for grains, and all kinds of supplies. Their timber accordingly cost them very high prices, and now when the Quebec prices are less than contemplated, they hold it over, if they are in a position to do so. Thus many have refused to sell this season in expectation of the supply being short next year. We cannot altogether agree with those lumbermen in such a policy, as money is selling at high figures, boomage is high, and men's wages are low. They could sell their lumber at lower prices than it brings at present, and still realize more profit than they are likely to reap next season. We claim that wages have been lowered too quickly, and too large a number of men will be thrown out of employment this season, or forced to work at very unprofitable prices. Had lumbermen lessened their operations, one-half and two-thirds as resolved upon, the danger of future losses to the trade generally would be greatly lessened.

LUMBERING STATISTICS.

The following comparative statistics regarding the lumber business of America are compiled from the columns of the *Commercial Review* of Cleveland.

In the order of their importance the great shipping and consuming points are as follows :

Chicago, sawed pine lumber.....	231,943,232
Chicago, hewn pine lumber.....	660,000
Chicago, pickets.....	706,000
Chicago, lath packages.....	27,761,529
Chicago, shingles.....	40,301,000
Chicago, cedar posts.....	107,000
Buffalo, by lake, lumber.....	204,976,754
Buffalo, by lake, lath.....	6,105,650
Buffalo, by lake, shingles.....	16,039,300
Buffalo, by canal, lumber.....	1,431,701
Buffalo, by canal, timber.....	811,200
Buffalo, by rail and team, lumber.....	10,600,000
Oswego, on Lake Ontario, lumber.....	292,919,483
Cleveland, by lake, lumber.....	191,079,000
Cleveland, by lake, lath.....	41,133,000
Cleveland, by lake, shingles.....	68,557,000
Toledo, by lake and canal, lumber.....	120,188,000
Toledo, by lake and canal, lath.....	15,563,000
Toledo, by lake and canal, shingles.....	55,414,000
Erie, by lake, lumber.....	44,799,998
Erie, by lake, lath.....	1,114,954
Erie, by lake, shingles.....	4,712,000

MARKET OF THE SAGINAW VALLEY.

From the *Saginaw Enterprise*, Oct. 23.

The shipments from the ports of East Saginaw and Bay City for the week ending yesterday, are as follows :

	Bay City.	Saginaw.
Lumber.....	9,777,783	4,598,000
Lath.....	1,402,000	567,000
Sale.....	9,904
Shingles.....	928,000	1,392,000
Staves.....	65,000
Hoops.....	145,000
Timber.....	1,215,500

The total shipments from the river to date aggregate 432,350,231 feet.

From the 10th to the 17th inclusive, in the years named, the following number of pieces were rafted out by the Tattibawassee Boom Co. :

1873	23,259 pieces
1872	54,983 "
Excess in 1872.....	31,725 "

As mentioned heretofore, the Boom Co. at a meeting on Tuesday, of the directors, resolved to issue \$30,000 in notes of the denomination of \$5 and \$10, bearing 10 per cent interest, and maturing at three and six months, in order to pay their men, it being impossible to obtain currency, and the merchants of the valley have agreed to accept them. These notes will be issued the first of next week, and the idea of the directors finds favor with all who have expressed themselves on the subject. Previous to the strike, September 28th, the amount of logs rafted out this year will equal that of last.

There is nothing new to note of the market here. A sale of 1,000,000 feet was reported a day or two since, but at figures that the parties in the transaction did not care to be made public. A sale of 800,000 in Saginaw city, a few days since, was reported at \$5 50, \$11, \$30, \$35 and \$40 per M, on six months time with interest, and another of 260,000 feet to central New York parties on private terms. A Bay City party also reports a sale on Thursday of 280,000 feet of lumber—100,000 strips, at \$6, \$12 and \$35, and the remainder at \$5,50, \$11 and \$36, on 30, 60 and 90 days' time. There are very few buyers in the market, the panic having practically knocked lumber transactions (as well as everything else) in the head for the present.

THE QUESTION OF WAGES.

The *Appleton Crescent* gives the following information of interests to lumbermen generally:

Laborers must make no calculation based upon an idea that there will be extensive lumbering upon the Wolf or its tributaries the coming winter; for there will not be half as much business as last season.

Laborers will do well to be on their guard against 'medicated' loggers, invidious speculators and sharpers, who will contrive to get parties at work trusting to some chance to make a raise and 'slide' without paying the workers.

Choppers, loggers and teamsters will command much lower wages the coming season than at any time since the war. Hence it is important to them to know the financial responsibility of the parties for whom they work.

Probably not over two or three responsible lumbering firms of this city will enter the woods with lumbering parties.

The *Menominee* (Mich.) *Herald* thinks that the amount of operations for the coming winter in its region will resolve itself into a question of wages. It says:

A majority of the leading lumbermen men of the river have been in this week, and have held several conferences in regard to future prospects and operations. The low price and small demand for lumber has rendered it necessary that radical steps shall be taken in some direction, and so much discouragement was felt that it has even been proposed to close things down for a year, and allow matters to become settled again. We think that it will finally culminate, however, in nearly as many men as ever being sent into the woods, though at reduced prices.

On this subject the *Marinette and Peshigo Eagle*: Wages of all kinds must be lower during the coming season, and if the close times continue many will be out of employment entirely, and much suffering must ensue. Laboring men may as well accept the situation and make the best of it, for it can't be helped. Laborers are now thronging the lumber offices in Chicago and offering to work for \$12 per month and their board during the winter. The prices of lumber have ruled so low for the past eighteen months that lumbermen cannot pay the wages they have

been paying for the past three or four years and live at it. If they continue in business they must get their labor at a lower figure than formerly. Unless they can secure help at less wages than they have been paying, they must close their mills and cease operating until lumber is sufficiently cleaned out of the market to command a higher price, when they may possibly resume again.

LOSS OF LOGS IN MASSACHUSETTS.—The rear portion of the immense drives of logs which for the past three months have been leisurely floating down from the north has made its appearance at Turner's Falls, Mass., and the assorters are working Sundays as well as other days. Of all the logs received at the Turner's Falls lumbering company's booms, about 4,000,000 feet were for themselves, 8,000,000 for the McIndoes lumber company at Northampton, and nearly 7,000,000 for the Holyoke Lumber company. About fifty men are engaged in assorting, a short distance south of the lumber mills, and have their encampment close by, on the north bank. During the recent storm, one of the booms broke away, and the logs went crashing over the dam at a fearful rate, and becoming lodged among the rocks were piled up in some instances thirty feet high. Many of the finest logs on striking the rocks were shattered to pieces; most of these belonged to the Holyoke company and the loss is considerable.—*Boston Lumber Trade*.

LOGGING THIS WINTER IN PENNSYLVANIA.—The tendency at present among the lumbermen is to contract the amount of logs to be cut this winter and put in a much smaller stock than usual. The following is the reported amount that will be put in by the parties named: N. Shaw & Co., about 14,000,000 feet on Anderson and Musquito creeks, one half of this for the Williamsport mill. Gamble, White & Co., 5,000,000 pine and a half a million hemlock, on Paddy's run. Liggett & Cook, 2,000,000 on Baugher's creek. Ross, Rockey & Co., about 7,000,000 on the first fork of the Sinnemahoning. On Youngwown's creek, A. P. Roberts will put in for J. B. Gray, 5,000,000. Mench & Lowenstean are to put in 3,000,000; White, Lentz & White 4,000,000; A. J. Quiggle and J. W. Crawford 2,000,000; Eder, Housel & Eemer about 2,500,000.—*Clinton* (Pa.) *Democrat*.

LUMBERING ON THE WISCONSIN.

From the Wisconsin Pilot.

The effect of the money panic upon the logging and lumbering business must certainly be a very serious question. The present prices if nothing else will cut down all heavy operations and shorten up the product at least one half. Large owners of pine lands will prefer to let their timber stand. In fact all owners of pine timber will prefer to hold on to it if possible. Only the mill owners will attempt to do business in order to prevent if possible a season of idleness for their mills. But the stringency in money matters will cut off more than one half the logging usually done by the mill owners themselves. So that we may safely say that not more than one fourth the usual amount of lumber will be turned out this season from the Wisconsin pineries. From reports received from a number of Michigan men, who, during the last winter have invested upon this river, we learn that the effect will be the same beyond doubt in the Michigan pineries. Several heavy firms have already given up preparations for logging during the coming winter. Should money get easier and prices of lumber improve towards the end of December or first of January it will perhaps give some additions to the product of logs. To speak of this particular locality we might say that with the prospects of better transportation facilities, business will be tolerably fair and if not as many boards are turned out, there will be considerable business done in other lines of trade.

STRENGTH OF TIMBER.—The strength of a piece of timber depends on the part of the tree from which it was taken. Up to a certain age, the heart of the tree is the best; after that period, it begins to fail gradually. The worst part of the tree is the sap-wood, which is next the bark. It is softer than the other parts of the wood, and is liable to premature decay. The deleterious component of the sap-wood is absorbed, if the tree is allowed to grow for a long period, and in time the old sap-wood becomes proper timber-fibre, similar to the heart wood. Hence, the goodness of a tree, for timber purposes, depends on the age at which the tree was cut down. When young, the heart-wood is the best; at maturity, with the exception of the sap-wood, the trunk is equally good

throughout; and, when the tree is allowed to grow to long, the heart-wood is first to show symptoms of weakness, and deteriorates gradually.

The best timber is secured by felling the tree at the age of maturity, which depends on its nature, as well as on the soil and climate. The ash, beech, elm and fir are generally considered at their best when at seventy or eighty years' growth, and the oak is seldom at its best in less than one hundred years, but much depends on surrounding circumstances. As a rule, trees should not be cut before arriving at maturity, because there is then too much sap-wood, and the durability of the timber is much inferior to that of trees after they have arrived at their full development.—*Boston Lumber Trade.*

THE TRADE OF ST. JOHN.—The deal trade has been extremely active this year, and promises to be greatly in excess of last year's export. Last year up to the 30th of September inclusive, the quantity of deals shipped from this port was 103,890, 320 feet. This year, up to the 30th of September inclusive the quantity of deals shipped is 156,210,813 feet. The total shipment of deals last year from this port was 146,643,000 feet, or nearly ten million feet less than the quantity shipped in the first nine months of this year. Yesterday 4,599,729 feet of deals were shipped, making the total shipments of this year so far 160,810,542 feet. We have no doubt that the total shipment of deals this year from St. John will largely exceed two hundred million feet, an amount which we do not think has ever been equaled or even closely approached at this port in any former year.—*St. John, (N. B.) Telegraph.*

FANCY SHINGLES.—A bunch of shingles manufactured by a Swedish woman, in Aroostook county, has been presented to the state of Maine. Their story will bear repeating: They were manufactured in New Sweden by a Swedish woman, Madame Ochestrane. She did all the work alone—felled the tree, sawed, split, shaved and bunched the shingles and carried them on her back three and a half miles, and sold them at a country store for flour for the support of her family. Her husband was sick at the time and not able to work. Weight of the bunch when first made, 63½ pounds. The truth of the statement is vouched for by several responsible citizens.—*New York Commercial Advertiser.*

OPERATIONS ON GREEN BAY.

From the Green Bay Advocate, 29th inst.

During a trip along the west shore on the bay last week, we took pains to ascertain the views of the mill owners as to the course to be pursued this winter. The result is not a very encouraging outlook for laborers in the pineries. Two or three illustrations will give an idea of what will be done. The Peshtigo Company got in last winter about 55,000,000 feet of logs and will have cut this season, in about 10 days from now 42,000,000 feet of lumber. It is the intention of the company this winter to get in about 30,000,000 feet of logs, or only about one-half of last winter's crop. While this comparison looks bad, yet it is not so bad after all in comparison with previous years. It must be remembered that an unusual stock was cut last winter all along the bay, in order to save the burned timber from becoming destroyed by worms.

In Marinette, F. Carney & Co., will put in about 12,000,000 feet, against 14,000,000 feet last year, and the other companies in Marinette, Menominee and Menekaune, expect to put in two-thirds or three-fourths of the stock they did last year.

The mills on the Menominee are all running with two exceptions, but will shut down in a few days, probably the last of this week. The mills in Oconto will shut down, in fact we believe most of them did last week.

On the Menominee there was little news of general interest last week. The most exciting item perhaps was the death of a man named Palmer. He was found on the railroad track near the furnace in Menominee on Thursday morning with his skull broken. There was at first some suspicion of murder, but it is probable that he fell from a train of cars and sustained the injury.

Business is by no means lively, but everybody is doing something, and the various lumbering firms on the river are composed of men who have got sufficient capital to weather the storm.

The *Menominee Herald* says:

The Boom Co's report of logs scaled during the season shows a total of 710,281 logs, or 122,008,529.

The Menekaune mill has shut down, after having sawed 17,725 M feet of lumber, and 3,485,250 lath.

GREEN BAY HARBOR IMPROVEMENT.—

The steam dredge, Albert Conro, which has been at work during the past season, left here during the week, in tow of the tug Hagerman, for Milwaukee. The last appropriation money having been exhausted by the season's operations, of course brings an end to further dredging, for the present, or until another appropriation is made. The work this season has been under the supervision of Mr. Samuel Whitney of the U. S. Engineer corps, to whom the *Advocate* reporter is indebted for an interview, enabling him to give our readers the exact condition of the work, though it must be done without the aid of Mr. Whitney's well-defined and perspicuous charts.

The original "Straight Cut" was a channel 14 feet deep, 200 feet in width and 7,000 feet in length. It extended from the mouth of the river due north 2,400 feet, thence considerably east of north 4,600 feet through Grass Island. The work contemplated this season, and to do which it was thought that the remaining \$20,000 of the appropriation money was sufficient, was first to widen by 150 feet the south 2,400 feet of cut, that is, to the angle, and then to cut away the exterior angle itself. The money was exhausted in the first part of the work. The Conro commenced on the 16th day of July and finished Oct. 20th, working on the average twelve hours a day. Not counting delays they have dredged an average of 600 yards daily, the largest day's work being 1,100 yards, from 4 to 8 feet deep. The total amount of dredging done was 49,800 yards, giving us a channel from the mouth of the river out 2,400 feet, 350 feet in width and 14 deep, and from that point, 200 feet in width, as above stated, 4,600 feet. The soundings indicated by the charts were taken some two years ago. New soundings will be made this winter as soon as the bay freezes over.

The Conro is a new dredge, this being her first season's work. Her capacity is well shown by the above record. She is operated by two hoisting engines of 50 horse power and two swing engines of 30 horse power. She has been commanded by Capt. D. C. Reed, who will not remain with her, however, having recently received an appointment as inspector of engineers and boilers.—*Green Bay Advocate*.

OPERATIONS ON THE EAST THE TRADE AT THE EAST. SHORE.

From the Ludington (Mich.) Record.

Probably no class of men will suffer more by the present stringency in monetary affairs than our lumbermen, and no other branch of industry will be so seriously affected for a time as the lumbering interests.

The usually low prices which have ruled through the season, followed by the more recent deadness of the market, which is now brightening again in a barely perceptible degree, have served to curtail to a large extent the operations for the coming winter. Reports from all quarters indicate that less than half of the work will be done in the woods this winter than was accomplished last season. Lumbermen are determined upon a large reduction of wages, and even then will operate sparingly.

Our shippers report very few sales of late, and what has been sold has been on time. Both of Ward's mills shut down on Saturday. There is considerable lumber upon the docks which will probably be shipped this season. Mr. Ward has some logs on hand and will put in about 25,000,000 the coming winter.

The Pere Marquette Lumber Company has been running its mills at less than half capacity for some time past but it is still running. They will carry over logs enough to fill their contracts for next season and will lumber this winter as little as possible. The mill of Geo. W. Roby & Co., shut down nearly two weeks ago for want of logs. They have about 2,000,000 in the river and will probably cut more this season if they can be got down in time. They intend to put in about 7,000,000 or 8,000,000 this winter.

Danaber & Malendy are still running. They have upward of 2,000,000 of logs in the river and will put in 15,000,000.

The mills of Foster & Stanchfield and Sweet & Taylor are still running, but the former will probably shut down this week. The mill of C. Mears, at Lincoln, will shut down this week. He has about 4,000,000 of logs on hand, and will put in only about 2,000,000 the coming winter.

A few other lumbermen will operate moderately upon Pere Marquette River.

From the Albany Argus (16th. inst.)

The uncertainty felt as regards the future of financial affairs has seriously affected the lumber trade all over the country, and although there is some business being done in the district, matters are very quiet, and not what they ought to be at this season of the year. Receipts are still light, and there is no visible increase of stock in yards. Shipments are about keeping pace with receipts. The late heavy rains have not helped the northern mills as much as anticipated; some mills, however are running which were previously unable to; there is a scarcity just now in the market of narrow spruce boards and planks. There is still, as there has been all the season, a demand for desirable lots of the better grades of pine, which meets with a ready sale.

Our advices from Michigan are that many of the largest mills have stopped sawing for the season, and several of the most extensive firms do not intend taking out any logs this winter. It is thought that the production this year in Michigan and vicinity will not exceed one-third of the customary amount. We notice that at a private meeting of square-timber makers held at Ottawa, resolutions were passed to lessen the operations in square timber making this winter, and one-half or two-thirds of last year's product to be the maximum.

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

	Boards & Scant- ling, feet.	Shingles, No. of M.
1873	275,442,400	9,483
1871	334,933,100	10,000

The receipts and shipments from Chicago during the the periods named are as follows:

	RECEIPTS.	
	Last week.	Since Jan. 1.
Lumber, m ft.	37,902	926,356
Shingles, m.	9,277	414,776
Lath, m.	1,568	71,600

	SHIPMENTS.	
	Last week.	Since Jan. 1.
Lumber, m ft.	16,919	462,081
Shingles, m.	10,837	327,461
Lath, m.	2,051	45,737

THE Wisconsin Valley Railroad, we are informed, is being pushed forward vigorously. There are now fifteen hundred men at work upon it between Centralia.

and Knowlton. It is expected that the road-bed will be finished and ties upon the ground and the track most of it down, so that the cars will be running from Grand Rapids to Knowlton, early in November. Track-laying will commence from Centralia immediately, and in a few days will reach the Central Wisconsin Railroad. The road will be finished to Wausau early next spring.

EVILS OF SPECULATION.

From the Boston (Mass.) Lumber Trade.

Speculation in timbered lands is a detriment to the lumber interest. It has induced men of small capital and men of no capital, to purchase large tracts of lands, principally on credit, on which they commence operations with a small amount of cash, generally hired at exorbitant rates of interest. The season is hardly opened before they find it necessary to obtain an advance, and, from the day they take possession of the property to the day when the last stick of timber upon it is cut, they are hard pressed for money to meet payments upon their tracts, to pay interest, to buy stores and stock, to pay help, to buy tools and to pay taxes. For an hundred purposes money must constantly be raised and logs as well as manufactured lumber must be sacrificed, to meet these constant demands. In this way these men work hard, involving themselves deeper and deeper, injuring the business of their neighbors, in a hopeless speculation. And this mode of procedure is little short of criminal! There is not one stick of timber now growing, more than the needs of our people will require for their regular business purposes, and the present wasteful manner of lumbering and milling in many sections of new country is entirely wrong. A National Association of Lumbermen—for which we argued months ago, and the advantages of which many of the ablest journals in the country have since heartily acknowledged—would have it in their province to prevent much of this wrong, and correct many other abuses that have tended to create the present unhealthy condition of the lumber trade of America.

ADVICE ABOUT BOILERS.

Captain Hardy, of Marquette, favors the *Mining Journal* of that place with these useful suggestions about the causes and prevention of boiler explosions:

There is only one grand direct cause of boiler explosions, that is in the incapacity of the metal, at the time, to sustain the pressure to which it is subjected. This can be brought about in several ways; defective material of which the boiler is constructed; defective construction, all parts of the boiler being incapable of sustaining the same pressure; gradual accumulated pressure without the means of escape; sudden accumulated pressure by pumping water on red hot sheets; collapse occasioned by a vacuum in the boiler, the reverse valve being inoperative; collapse of flue occasioned by internal pressure in the boiler and a partial vacuum in the flue; overheating the plates, brought about by the accumulation of large quantities of scale upon them, thereby reducing their tenacity.

Boilers having been previously tested by hydrostatic pressure considerably beyond the limit to which it is intended ever to allow the steam to reach, and each and every boiler being fitted with steam and water gauges, proper sized safety-valves and such like instruments, there is never any good excuse, under any circumstances, for the cause of boiler explosions. Incompetency or recklessness must be somewhere manifest, for the engineer, knowing the pressure that his boiler will with safety bear, should under no circumstances allow it to exceed that pressure. We would, however, observe here, that we have noticed in many cases where there are a number of boilers connected together, instead of having a steam gauge attached to each one separately, there was but one gauge to the whole number; and hence, if one or more boilers be shut off from the others, there would be no means of ascertaining the pressure within them; and it is a very common thing with some boilers to have no steam gauge whatever. In such cases as these the owners take upon themselves the responsibility, which would otherwise be attached to the engineer, of any disastrous result.

The legislation in regard to the inspection of steam boilers is hardly adequate to the cause; for though the testing the strengths of boilers from time to time is

very good so far as it goes, it falls short of what the seriousness of the case demands. The same amount of strict, unbiased inspection by the parties who have charge of the very powerful, yet governable element of steam, would be followed by far more beneficial results. Place only those in charge of the steam engine, boilers and dependencies, who are competent to the task; prevent owners from employing any one simply because his services can be secured for a small competence, and then you touch the subject in a vital point. It is too prevalent an opinion that any one who can stop and start an engine, have the fires started and hauled, is an engineer, regardless of his knowledge of the element of which he has charge.

It is true, however, that the system of rivalry and competition, carried on by owners and others using steam power, is such as to prevent any one independently from paying a very high rate of compensation; but if all were compelled to employ equally competent services, no difficulty could be experienced on this head.

A BIG MICHIGAN MILL.

From the *Grand Rapids Eagle* we learn that Messrs. John Widdicombe and W. H. Jones, two young men of known business capacity, have purchased one-half of his two-thirds interest in the Empire Gang saw mills and pine lands of J. H. Wonderly, for \$258,000, after which a joint stock company was organized with a paid up capital of \$775,000, under the name of "Wonderly Lumber Company." J. H. Wonderly and D. E. Little own stock to the amount of \$258,000 each, and the balance is held by Messrs. Widdicombe and Jones. The Empire gang mill is one of the largest in Michigan. It was built three years ago, and during the past summer was very much enlarged. Its sawing capacity is 125,000 feet per day of eleven hours. The company possess facilities for handling logs and lumber not enjoyed by any other lumbering institution in the state. Logs are received by both river and rail in sufficient quantities to keep the mill constantly in operation throughout the year. The company owns at the present time 300,000,000 feet of pine timber, located mostly in Montcalm and Nowaygo counties, easy of access and adjoining or in close proximity to large streams.

REVIVAL OF AMERICAN SHIP-BUILDING.

From the N. Y. Trade Journal.

It was not to be supposed that when all the other interests of this country were flourishing, that of ship-building should long be dormant. For many years it was indeed under a cloud, and prophets of evil announced its death, but the present activity has shown the falsity of these predictions. Untoward events for a long time prevented our building many vessels; the war pressed into the government service every available craft, large and small, drawing them from commerce, thereby giving it a death-blow, and England, by means of unfair advantages, produced by letting loose hostile cruisers—an act since justly condemned and charged against her account—took possession of our carrying trade, thus leaving us to mournful recollections upon our past glory upon the seas. Having everything her own way, that nation built vessels innumerable, and all was activity in her ship yards, while the builders rubbed their hands with glee as they looked this way at our empty yards, rejoicing that their greatest rivals were at last put down. Unfortunately for them, but well for us, coal, iron and wages advanced so enormously that ships could not be built, except at greatly increased cost, and then our own builders began to call their hands and go to work, and now the sound of the shipwright is heard all along our coasts.

During the long interval of dullness, some of our thoughtful and observant mechanics were going through the British shipyards making notes on the operations therein, seeing where improvements were made and could be further made, and then, returning home, put their knowledge into practice. The result of this is that to-day, in spite of England, the target of protectionists, and the model and strong tower of refuge for free traders, we are building our own vessels of iron or wood to compare with and even excel their finest productions. We have in Chester, Pennsylvania, a second Clyde, and one that will soon eclipse its ancestor, while our city yards are busily engaged in turning out some of the finest specimens of naval architecture.

We venture to predict that before many years, English capital will be invested in American ship-building, as it has been so

largely in American railways. It is useless to deny the inherent advantages for superiority we have, and the only drawbacks to our growth and prosperity will be found in unwise legislation which we believe can hardly occur. The great need of vessels can be readily seen when we consider that almost double rates are now charged for carrying grain to Europe, the extra price for which would, if paid to the farmer, give him a fair profit. It is not worth while to say, take off the tariff and bring in free ships, since foreign countries cannot now build as many ships as they have orders for, unless at a cost to exclude profit. The present condition of affairs will in time right itself legitimately, and we must await that time. Meanwhile we can rejoice heartily that this branch of industry in which as a nation we do and ought to take pride is assuming such large proportions with such a bright future before it.

BUSINESS OF WOOD COUNTY.

From the Grand Rapids Tribune.

It has been a year of payments; the liabilities of citizens of the county to outside parties have been reduced several hundreds of thousands of dollars. It has been a year of improvements; within the limits of Grand Rapids and Centralia—we speak of them as one, as they are in interest, and should be in name and in fact—more than one hundred buildings have been erected or are in process of erection, besides the improvements upon other buildings and upon the streets, public edifices and grounds, which have never progressed more rapidly. Nor have the improvements by any means been confined to Grand Rapids and Centralia; the growth in wealth in the outside towns has been even greater than in the metropolis. Two large stave and barrel factories and three or four saw mills are in process of erection in the towns of Remington and Dexter. The marshes, which three years ago the state could not sell at fifty cents per acre, are being dotted all over with substantial buildings; vast cranberry farms have been laid out: extensive systems of improvements planned, and many thousands of dollars already expended, to provide proper drainage and flowage. Several villages have been laid out and are rapidly building up. * * * * * All this has been brought about by the magnificent system of railroads that have built within the past two years.

LUMBER AND LOGS.

The *Chippewa Herald* says: advices from below do not furnish the most encouraging news in regard to the price of lumber, or the demand for it. Whenever there is a panic, or whenever the money market is very stringent, lumber is the first article that is depressed. During "hard times," it almost comes under the head of luxuries that can be dispensed with in case of necessity. A good share of the Chippewa river lumber was contracted for below, but the financial troubles prevented the parties from taking it, except on very long time, which of course was out of the question, particularly as the banks everywhere refuse to touch such paper. How long this state of things will continue, is a matter of conjecture, but it does not seem as if it were possible to last long. Europe must have our wheat—there is a short crop there, and a full one here—and in ten days from now, all kinds of grain will command currency everywhere. As soon as the farmers are "flush," the lumber market must of necessity improve, although the lateness of the season will prevent sales to any considerable amount.

If the present scarcity of money and fear of prices for next spring, will deter lumbermen from cutting so many logs, it will prove a regular blessing. There seems to be a kind of mania among operators to see how much pine land can be stripped—how much timber cut—a kind of reckless slaughter of pine. This is foolish. It is simply "killing the goose that lays the golden egg." Of all the logs put in last winter, we do not believe the owners of pine that operated on their own land, and sawed their own logs, realized a cent. Lumber has been a good deal of a drug in the market all summer, and the prices in consequence, have been very low. The supply was more than the demand. If land owners would consult their own interest, there would not be half the logs got out to-day that there is. When it is too late, they will discover this. Many of them have found it out and are acting accordingly.

The Union Lumbering Company, of this city, owing to the marketless condition of lumber on the Mississippi, have been compelled to "pull out" several millions of feet, rather than have it freeze up the coming winter. They have purchased the yard of O. W. Eckel, at Mustine, Iowa, and will probably secure several

others ere long. Heretofore, all the stock of the company has been placed on the market and sold in rafts; the Muscatine market being their first venture of this kind.

Daniel Shaw & Co.'s mill, in Eau Claire, closed for the season on Tuesday. Most of the others will run for a week or so longer. The U. L. Co.'s, of this city, will quit sawing about the 26th inst.

LUMBERING IN CANADA.

MANUFACTURERS OF THE OTTAWA VALLEY
—SAW MILLS OF THE CHAUDIERE FALLS
—THE MILLS OF HAWKESBURY.

Correspondence Williamsport Gazette and Bulletin.

OTTAWA, October, 1873.

MR. EDITOR:—Knowing the interest your valuable paper has taken in the lumber manufacture of the country, it affords me much pleasure to give you a few details of the stupendous manner in which the lumber interest is carried on here. I have not the least doubt but it will be read with anxiety by the community at large, and more especially by your lumbermen, as much is said of these pine forests the world over. Of the forests here there seems to be an agency for its rapid growth, for there appears to be more and more every year, although vast quantities of square timber and saw logs are cut annually. In order to give your readers a faint idea of this tremendous traffic, I will mention a few facts of the rafting business. From the cliffs of the Ottawa river, a vast sea of square timber rafts meets my gaze; on all sides I behold rafts, preparing for their onward march to their destination (Quebec), from whence they are shipped to England and other points. As many of your readers are not acquainted with the rafting system of this country, I will endeavor to describe it. Each of these rafts contain from 2,000 to 3,000 pieces of the best quality of white pine (square), while a few are oak. The rafts are made up in what is called cribs. A frame is made to admit twenty-one pieces, then traverses laid across, after which four pieces are laid on top, binding the whole in a solid mass. Thus one crib constituting twenty-five pieces, and thus all arranged until the whole raft is made up, and then set sail for the foaming St. Lawrence. While I

stand gazing from this rocky cliff, no less than one hundred of these immense rafts are counted, with three times that many more which have floated down the Ottawa for Quebec.

After admiring this for some time I strolled a little further up, when I came to the foot of three successive schutes, again to see square timber running through them, and as far up as the naked eye could reach, the same met my view. I could go hundreds of miles up this river and all along the same spectacle would present itself.

I will continue my onward course of the lumber business, so vastly carried on here, and also give you the names of some of the most prominent lumbermen, who are mostly Americans. In order to do this I will give a grand review of the saw mills, which are mostly all water power, and the main body of these mills are located around the Chaudiere falls, facing the city. Some of these mills have a tremendous capacity.

My first call was at the mill of J. MacLaren & Co. This mill is of the smaller size, but not deficient in capacity. It contains one slabber, one flat gang, one Yankee gang, and one circular, and runs night and day, turning out an annual average of 20,000,000 feet of lumber. They have also a sash and blind factory in connection with the mill, also doing a fair share of work, the whole establishment giving employment to one hundred and fifty men.

After giving this structure a careful survey, I crossed the river to interview some of the larger mills. I then came to the steam saw mill of Wright, Batson & Currier, a magnificent and well constructed edifice, containing two slabbers, two flat gangs, one round gang, and one circular saw. Estimated annual capacity, 17,000,000 feet, and giving employment to about 250 men, in and about the mill.

At this point there is also being constructed a steam saw mill, the property of Gilmore & Co. It is to be a fine brick mill, with an annual capacity of about 15,000,000, and to be in full operation the latter part of October.

Capt. Young's mill is also of small calibre but it turns out a very proper share of work. It contains one slabber, one flat gang, and one Yankee gang, cutting some 16,000,000 feet annually, and employs about 100 men.

Bronson & Weston's have two mills in close proximity, one containing two

slabbers, two flat gangs, two Yankee gangs, and one English gate; the other contains one slabber, one flat gang, and one Yankee gang, cutting about 40,000,000 feet annually. In a separate building are placed four lath machines, cutting an average of 90,000 lath per day, and a great number of palings; also a large amount of box boards. They employ in the neighborhood of 400 men.

A. H. Baldwin also has two mills connected, having one slabber, one flat gang, and four Yankees, turning out an annual average of 25,000,000 feet. They also have two lath machines, with a capacity of between 50,000 and 60,000 lath per day. A machine shop, foundry, and a blacksmith shop, with six fires, is also in connection with these mills, giving employment to about 200 men around this establishment, with as many more on the river.

J. R. Booth has two mills connected, located on the head of the Chaudiere falls, affording an immense water power. The larger one contains two slabbers, two flat gangs, and one Yankee gang. The other has one slabber, one flat gang, and one Yankee, cutting annually about 40,000,000, and giving employment to some 400 men.

The mill of Perley & Pattee is also located on the very edge of the falls, giving it all required power. It has two Yankees, two slabbers, two flat gangs, one English gate and one resplitting gang, turning out an average of 30,000,000 feet annually, and this on day work only. They employ about 275 men in and around the mill, with as many more on the river.

E. B. Eddy's mills and piling grounds cover a large tract of land on the north shore of the Ottawa, at the Chaudiere falls, and extend from above the falls to an island opposite the parliament buildings. They consist of one large pail factory, built solidly of stone; a match factory, also of stone; four saw mills of great extent, built principally of wood, and numerous other buildings, offices, etc., necessary to such extensive operations, including a sash, door and blind factory, and a general store. In addition to these mills Mr. Eddy has built a double track railway over a mile in length, which runs from his mills to the further extremity of his piling grounds, and enables him to distribute and pile the enormous amount of lumber produced expeditiously. These mills man-

ufacture annually about 40,000,000 feet of pine lumber of which there are always from 8,000,000 to 10,000,000 feet on the piling grounds. They also manufacture annually 600,000 pails, 45,000 wash tubs, 72,000 zinc wash boards and 270,000 gross of matches, besides the productions of the sash, door and blind factory. The saw mills are fitted with gang and circular saws of all kinds and sizes, and the whole establishment gives employment to from seventeen to eighteen hundred persons, many of whom are girls employed in the manufacture of matches. In addition to these there are about four or five hundred men employed in the woods, where Mr. Eddy owns "limits"—a tract of land about five hundred miles in extent, the greater part of which is forest, but there are also some cultivated lands, and a growing village called "Fort Eddy." The force employed in driving the mills is derived from the unlimited water power of the Ottawa, assisted by mechanical agencies of modern invention, and is equal to about six hundred horse power.

The mills belonging to Messrs. Gilmore & Co., consist of two large, substantial buildings, and a smaller mill for preparing lumber for the American market, and they were commenced about thirty years ago. The water power used is equal to 500 horse power. There are thirteen saw gates, containing about 220 saws; and twenty edging, butting, and re-sawing circulars. These mills will manufacture 230,000 feet, board measure, in eleven hours, or about 40,000,000 feet per season. About one-third of this lumber is cut for the Quebec market, and the balance for the United States. Attached to the mills there are about three miles of wooden canal for conveying the sawed lumber to the piling grounds. Messrs. Gilmore & Co. possess timber limits to the extent of 1,700 square miles, whence they obtain the requisite number of sawlogs to supply these extensive works; and 1,000 men receive employment from them during the winter, and 500 in summer, including lumbermen, farmers, surveyors, etc., etc. They also employ 250 span of horses and 80 yokes of oxen; and during each season they consume 40,000 bushels of oats, 600 tons of hay, 1,500 barrels of pork, and 3,000 barrels of flour, besides large quantities of clothing, boots, shoes, tea, tobacco, blankets, etc. These mills are among the most celebrated in the country, not only for the romantic beauty

of the surrounding scenery, but for the perfection of the machinery employed and the order and the good management exhibited throughout them. I must not omit to mention that upon their timber limits this firm has no less than nine farms, comprising in all about 1,500 acres. The land is excellent—as much as fifty bushels of wheat to the acre have been raised some seasons. Of course, this is above the average, but the yield is generally excellent. The whole of the produce of these farms is consumed by the employes of the firm. On the banks of the river Gatineau they have four principal depots from which supplies are sent to the men at work in the woods. One of these is distant upwards of 200 miles from Ottawa. This firm pays from \$275,000 to \$380,000 in wages, annually.

Nearly two years have elapsed since the destruction by fire of the steam mill belonging to the Hon. James Skead, at Thompson's Bay, a short distance from this city. By that disaster Mr. Skead was a severe sufferer. Undaunted, however, by his misfortune, and full of that energy which has raised him from a comparatively humble position to that of a man of wealth and a senator of the dominion, he soon set to work to retrieve his losses, and has succeeded admirably. A new mill on the site of the old one is now in running order, and is, without question, one of the finest mills of the kind in the whole country. Beautifully situated at the foot of the bay, in the midst of a grove a maple, beech, birch and hickory, approached by a carriage from the Richmond road, and crossing the Canada Central at right angles, the mill presents externally a fine appearance. It is 176 feet in length and 76 in breadth, with two attachments, one being used as a sorting room and the other for filing. The foundation is of stone, very compactly laid; the sides are of wood coated with fire-proof paint, and the roof is of corrugated galvanized iron. A cupola crowns the edifice, through which a flag-staff protrudes, bearing the British flag.

Hamilton & Co.'s Hawkesbury mills are of the largest of the great milling establishments of the Ottawa valley. They are situated about sixty miles from Ottawa city, on the south shore of the river, near what is called Greenville Rapids.

There are included in this establishment four saw mills, together with a grist mill, with four run of stones, for the production of flour for the use of the raftsmen, shanty-

men and other employes, as well as for the neighboring farmers. The mills contain 101 vertical saws and 44 circular saws, driven by 72 water wheels, and turn out from 40,000,000 to 50,000,000 feet of lumber per annum. About 500 men and boys are employed constantly by the firm of Hawkesbury alone, in summer. Some conception of the immense extent of the operations of this firm may be formed when we say that more than 3,000 tons of agricultural produce are consumed annually. The Hon. John Hamilton resides at Hawkesbury; and the whole village and establishment bear evident signs of opulence and comfort. The limits from which these mills obtain their supply of timber are situated principally upon the rivers Rouge, Gatineau and Du Moine. Messrs. Hamilton & Co. bring down from their limits 200,000 logs, on an average, annually.

Lake Superior Geology.

From the Marquette Mining Journal.

The commotion which took place in the formation of Lake Superior geology has given to the world an unusually interesting study. The recent copper discoveries on Isle Royale show to an extraordinary degree the age of the country and the power which gave it its present character. A belt of copper extends from the northeast to the southwest, apparently across the whole island, and where opened is twenty-five feet in width, which seems to have been deposited in a canon, between trap walls, and which consists of globes of conglomerate rock from two to twelve inches in diameter, imbedded in the copper. The conglomerate was evidently washed from a sea where it had probably been tossed about for centuries to obtain its globular form, and then forced with the molten copper into the fissure which it now occupies. The copper of the Calumet and Hecla mine is deposited in a similar way, except that instead of large bodies the globules are in the form of sand and all sizes of shot, apparently in the form of drift. At one of the copper mines, we understand, when it was first worked, large globes were found, weighing from one to five pounds, which were at first supposed to be copper, but upon handling them for transportation it was discovered that they were mere copper shells of from one-half to an inch in thickness, filled with rock from the lower silurian formation. These, together with other facts, show the country to be one of great antiquity as well as one of peculiar interest to the geologist.

NORTHWESTERN LUMBER CO.

ITS RISE AND PROGRESS—DESCRIPTION OF
ITS MILLS—SKETCH OF ITS OFFICERS.

The firm of Porter, Moon & Co. will hereafter be known as the Northwestern Lumber Company. The following gentlemen as officers: G. E. Porter, president; D. R. Moon, vice president; S. T. McKnight, treasurer; M. E. O'Connell, secretary; with a paid up capital of \$400,000. This company has organized for the facilitating and carrying on of their immense business, and for the purpose of paying close attention to their real estate transactions and other matters pertaining to the successful carrying on of a large concern. This company being composed entirely of gentlemen who are all self-made men, who by their integrity, honesty and indomitable perseverance have risen up with Eau Claire, we take more than ordinary pleasure in laying before our readers a few facts connected with their mills.

The size of the present lumber mill is 54 by 136 feet, two stories high, with engine and boiler rooms 23x36 feet., using four boilers and three engines, manufactured by Graham White & Co., 100,000 feet of lumber, 30,000 feet of lath and 50,000 shingles are cut daily. During the running season of 6½ months, 15 million feet of lumber are cut; two circular and one gang of saws doing all the work, giving employment to 120 men. There are 500 acres of fine land adjoining the mill site which gives an abundance of room for all purposes. There are thirty-two private dwelling houses erected near the mill for the accommodation of the married employees, which are rented at a very slight advance on the cost of building; the rent of one of these neat cottages is only \$75 per annum, and fire wood already cut is furnished at the doors for this sum. A large dining hall and sleeping apartments are provided for the use of the single men; every care and attention is given to the comfort of the employees; 450 acres are devoted to agricultural purposes. On the farm all kinds of cereals are raised as well as vegetables. Nine teams of horses and three yoke of oxen are among the stock employed by this company. One pilot on the Chippewa and one on the Mississippi river are kept constantly employed. While other

mills shipping less lumber than this employ more pilots, the managers of these mills do well enough with the number above mentioned. They own twenty thousand acres of pine lands in this and adjoining counties. A blacksmith shop is kept in full force doing all the necessary repairs to machinery and other work pertaining to that branch of the business. A store with general merchandise adjoins the office. This fall it is the intention of the company to enlarge it. They hold one-half interest in G. B. Chapman & Co.'s large dry goods house. The shingle mill is three stories high and is the most unique and convenient mill in the Chippewa valley. The bolts are sawed down stairs and by means of an elevator are raised to the third story where they are cut into shingles, and sent down a chute to the second floor where they are trimmed; from there they are sent to the first floor to be sorted and packed.

Mr. G. E. Porter started his old mill in 1864, which he ran by himself until the fall of 1866 when he had the misfortune to be burnt out. This was a severe blow to his business prospects. But nothing daunted he went to work and built his present mill. A pleasing incident in connection with the fire is this. Mr. Porter had just money enough to pay off his men, who after receiving their pay came to him in a body with a request that they might deposit their money with him. It must have been an immense gratification to him to know that in his darkest hour the whole of his employees had the most implicit faith and confidence in his integrity and honor. D. R. Moon went into the firm in the spring of 1867, which was run until 1870 under the name of Porter & Moon, in which year S. T. McKnight took a third interest. The firm was then called Porter, Moon & Co., by which name it has been known until recently, when for many and sufficient reasons they organized as the Northwestern Lumber Co. To many it has been a source of surprise how this firm has progressed so rapidly and established such an immense and favorable reputation. The secret (if there is any) is by strict attention to business, honesty, promptness and strict integrity in all their transactions, which has marked them as substantial and fair dealing men. Another point in their favor is that they never employ agents, but sell direct to their customers, thereby doing away with the profits of middle men, which the pur-

chaser saves. Their principal yard is at Hannibal, Missouri.

Gilbert E. Porter came to Eau Claire in 1865 with a small capital, but a large determination to succeed. It is useless for us to tell our readers how admirably he has done that, for at the present time no citizen is more respected than this gentleman. Mr. Porter's first position was with Chapman & Thorp (now the Eau Claire Lumber Co.) with whom he remained for a little over one year, retiring from them he was induced to take the management of the *Eau Claire Free Press*; during his successful career with that paper, people from abroad received their first ideas and knowledge of the immense resources of Eau Claire, his many literary productions on behalf of the interests, of the then village, being read with interests by thousands. To Mr. Porter the thanks of the whole community are due for his unceasing and untiring efforts to make Eau Claire a city of some size. On the first of May 1864, the *Free Press* office was burnt down. Mr. Porter then made over his entire interest in the paper to the Stocking Bros. He then went into the lumber business in which he has since continued. For nine years he was Register of United States Lands, which office he filled to the entire satisfaction of everybody with whom he had business transactions. In every undertaking that is for the benefit of Eau Claire, Mr. Porter takes an active and leading part and it is with pleasure that we claim him as one of our representative citizens.

D. R. Moon came to Eau Claire in 1857, and went into the banking business with Hall & Bro., who started at the worst time it was possible to, and soon paid the penalty by failing with thousands of others during the terrible panic of 1857. Mr. Moon then went into the general merchandise business with G. B. Chapman & Co. He being the Co. In the spring of 1867 he joined Mr. Porter in the lumber business. Mr. Moon is building himself a handsome residence on the farm where he with his pleasant wife and family intend to reside.

Mr. S. T. McKnight the resident partner at Hannibal, Mo., was formerly a Wisconsin river lumberman who has risen to his present position by honesty and close attention to his business; he has the selling of all lumber that is sent to Hannibal, Mo.

The appointment of Mr. M. E. O. Con-

nell as secretary is a well merited and deserved compliment to that gentleman for his long and faithful services which have continued for over seven years with this firm.

This is a slight sketch of the history of this firm, and it shows how well men can succeed in business when they make a determination to do so.—*Eau Claire Free Press*.

The *Stevens Point Journal* reports incessant activity in the entering and settlement of homesteads along the line of the Wisconsin Central. It says:

The country along the line of the Central, northwest of this city, has been settling up quite rapidly all summer, and the influx of actual settlers still continues. They go singly, by twos and in squads. Hardly a day passes but that some one goes up the line to look up a home, or to Wausau to make entries. A good many homesteads have already been entered, and another summer will undoubtedly add largely to the number. The erroneous idea that the country through which the Central passes was only valuable for its timber and minerals has been corrected. The truth is gradually finding its way into print, and the people are beginning to learn that it traverses some of the finest farming lands in the state. Hence the trade that is surely setting this way.

The Wealth of Penoka.

Mr. Struckmeyer informs us that the recent exploration made on the La Pointe Co.'s lands at Penoka, are very flattering. The ore is in mass and very richly magnetic. Several test pits have been dug, and the lode is found to be 40 feet wide, extending for a quarter of a mile. Capt. Moore is sure he has struck the metal, and with an additional force of miners, tools, &c., will be able to open a rich mine. The ore when struck with a pickaxe leaves a black spot, and the dust sticks to the point of the pick, which proves it to be magnetic. The impurities found in the outcrop does not appear under the surface. Some of the test pits are 20 feet deep, through sand gravel, and as the location is far above the valley below, drainage can be easily obtained.—*Ashland Press*.

The Wisconsin Central is beginning to prepare for the bad weather that cannot be far in the future. The choppers have reached the center of section 101. This is as far as the graders will be likely to go this fall, and consequently a large portion of the choppers have been taken off. Some of the gravel hands have also been discharged.—*Stevens Point Journal*.

WISCONSIN'S YOUNGEST TOWN.

The Panic and the Resources of Northern Wisconsin—No Harm to Come to Solid Enterprises from the Explosion of a Bubble—The Wisconsin Central to Hasten Slowly—A Good Field for Hard Work, Enterprise and Capital.

The following words from Sam S. Field, founder of Wisconsin's youngest town, editor of the *Ashland Press*, and candidate for the state assembly from the "Upper District," will be read with profit by eastern capitalists and others. There is sense as well as grit in Sam's remarks. The splendid resources of northern Wisconsin are not to be appreciably put back by the explosion of Jay Cooke's bubble. Let the immigrants that Wisconsin was sending off to isothermal regions stop at Ashland, Bayfield and Superior; let the capitalists who have been risking everything on inflated stocks, come to northern Wisconsin and buy mines, farms and timber lands; and it will yet appear that the panic has proved a godsend to every solid interest of this noble state. The *Ashland Press* says:

The financial panic seems to have spent its force, confidence being restored east and west and the trade and commerce again resuming their regular channels. The recent fall of the money kings has, however, disturbed to a certain degree the men who have undertaken the hereleau task of penetrating the unsettled portions of the great west with railroads, and it now looks as though a great many worthy enterprises would be indefinitely postponed in consequence. Capital is a barometer that feels the least change in the commercial atmosphere, and the men who use it are quick to discover any variations of the indicator, and shorten sail at the approach of the least financial cloud. Such is the situation at the present time. The war upon the old established railroads, no matter how just it may be, has had its bad effect with new roads, and driven the boldest operator to seek shelter and safety in retrenchment, or temporary suspension. The recent failure of Jay Cooke & Co., affected railroad securities

of every description, and while the Northern Pacific will, perhaps, receive the heaviest blow, still every railroad in the country has felt the shock to some extent, and has been crippled and embarrassed. The Wisconsin Central, though financially sound, is not an exception, and while the company will undoubtedly pull through and do its best to complete its land road before the expiration of its land grant, still it will not be able to push its work as rapidly as it had planned to do, or accomplish the task laid out for the present year.

Having completed its northern division from Ashland to Penoka Range, it had intended to push the work forward still further into the wilderness, and rest its labors at the end of the season at the south line of Ashland county, and within a few miles of the northern terminus of the southern division, now being rapidly pushed forward by a force of two thousand men. But the best laid plans often fail, and under the present state of affairs, the company deem it safest and best to go slow, and for the present content themselves with doing well, and wait for a more favorable turn of fortunes wheel. To this end orders were issued to Capt. W. W. Rich, division engineer in charge, early last week, to suspend all work south of the range and discharge about half his force, using the balance, about two hundred and fifty men, in finishing up, ballasting, etc., the thirty miles of track now laid. These orders have been obeyed, and during the present week the men have been paid off, and mostly taken their departure to other fields of labor.

This sudden turp of affairs has of course created some commotion and surprise among our people, who have looked forward to a busy fall and winter and consequent easy times. But the worst is known now, and confidence restored. People keep about their business just as though nothing had happened, and few if any have lost courage, or faith in Ashland.

That it will affect us for a while and make times dull we will not attempt to deny, but that it will be a permanent check to our growth and prosperity no one is foolish enough to believe for a moment. The most sanguine has not expected to see a city built up and maintained upon the money expended in building and operating the road, and sooner or later, all have known, this source of supply must fail, and a more solid basis be

found only in the improvement of the country and the development of its agricultural and mineral wealth. This will necessarily be slow work until the opening of the road through an eastern connection, but while slow it will be sure, and of a character not to be upset by every financial squall. It is time people looked at things through proper eyes, and realize that hard work, enterprise and capital alone can build up a city. With us, at this time, is our darkest day, but light is behind every cloud and the faithful will see it shine forth from this, more brilliant than their fondest hopes ever fancied.

Stand firm, men of Ashland! Stand to your guns, men of Lake Superior! Be of good cheer brothers and neighbors for all will yet be well. God never made this great inland sea to lie idle in its beauty, nor this broad land with its valuable timber and mines of untold wealth to remain a wilderness. The great army of progress has not been defeated by the financial bubble; it has only halted a moment to rest. Its march will be resumed and its steady tread will be heard thundering along our shores, conquering all opposition and working out our glorious destiny. Work on and be patient.

GOOD ADVICE TO MR. BOUTWELL.

"A Busy Merchant," through the *New York Times* addresses "A Letter to Mr. Boutwell" which so well expresses the feeling of all business interests in the west, that we reproduce it without extended comment. It is of especial interest as a protest of the sound business sense of the country against what seems likely to be the temporizing policy of the next congress:

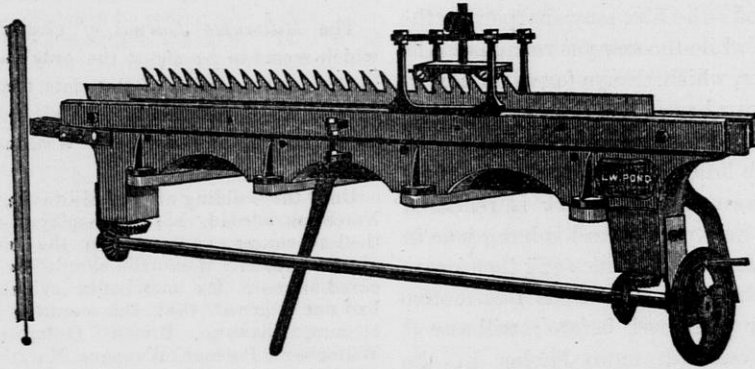
In common with the great class of business men, I noticed with deep interest that you were to speak next before last in New York on "Finance;" but I read your lecture with profound disappointment. The occasion seemed so opportune for practical suggestions applicable to the present exigencies, by one speaking with your experience and authority, that it was widely believed that you would enter the open way with propositions for decided measures looking towards an honest currency.

Everybody knows that, in the discussion of financial principles, unity of sentiment is as unattainable as in theological debates: but at such a time as this, when simple practical measures are in order and indispensable, to whom can the country look if not to its highest financial officers?

Hitherto, since the war, the spirit of wild speculation has constantly overpowered good morals in finance. By almost universal consent, all earnest efforts for a return to specie payments have been deferred until the mania of speculation and railway building culminated. It was useless to talk of specie payments six months ago; by parity of reasoning it will be found impossible to ignore the question in the immediate future. The national banking system is broken down, and must be reconstructed. The Fisk-Gould party first discovered (through the reserve delusion) their easy method of breaking all the banks in New York at will, and now the people have unwittingly, in pocketing all the currency, dishonored and upset the system. It must, it is clear, be reformed and everybody will say that we must now build on a sound basis. I am perfectly aware that nobody wants or expects me to say anything on the subject, but as you have made the "unlooked for" the rule on this subject, as well as others, let me at the close of a hard day's work offer a few suggestions for your consideration.

The country suffers through a limited irredeemable currency. It is irredeemable because limited. The provisions of law for the redemption of national bank notes in legal tender would become operative instantly, were the limitations of currency removed. Now the banks say, "There is only so much, all told. It will all be wanted soon. We will not trouble ourselves to assort and send it for redemption." Then the banks would say, "There being no limit to this issue, we must regularly send our neighbors' bills in and get legal tenders for them." This is natural, and it is sound. There is no danger that people will, in the long run, or often, indulge in excessive issues of paper money based solely on government bonds deposited with the treasury at Washington, with stringent laws for daily redemption at a few of the chief cities. It is my experience or observation are worth anything, there is at this moment a grand opportunity for rescuing our country within a reasonably short time from the dishonor and loss of a depreciated currency. If the president of the United States had the power, and should now exercise it, to allow all the national banks to issue their notes, *ad libitum*, on the deposit of five-twenties, as now, with strict regulations for daily redemption, the results would be, first, that the dead-lock in the currency would be terminated all over the country on the instant; and then, as the great railroad projects are put off, and the varied and vast industries which were dependent on them are necessarily crippled, it will soon be found that our present currency exceeds the legitimate wants of the country, and instead of more of it, we shall have healthy contraction, and a steady approach to the time when the government will be able to pay gold for greenbacks when wanted, which means full redemption.

You declare yourself hostile to "free banking" without explaining precisely what is involved in the term. I cannot see why banks should not be as free to issue paper (amply secured and always redeemable) as Mr. Stewart and Mr. Clafin are to import and vend silks on paying the required duties thereon. There is not a bit more danger of overissues of currency (based on United States bonds) than of excessive imports of silks purchased with Mr. Stewart's gold. Precisely the same law governs both cases, and the time is not distant when the great debate which has been going on for twelve years between the advocates of expansion and contraction will result in this solution of the question. The laws governing our currency now seem to me no more reasonable, no more in accord with common sense than for the keeper of a hotel, whose guests vary from twenty to five hundred, to provide the same dinner daily. We have just as much currency in seed time as in harvest, and that is an offense against reason and the prosperity of the nation.

POND'S PATENT GANG-SAW JOINTER AND BENCH.

MANUFACTURED AT Eau Claire, WIS.

The above illustration represents the most perfect machine yet invented for jointing and perfecting gang saws. Perhaps no better idea can be conveyed of the great utility of this invention than to describe the circumstances of its first use by the Eau Claire Lumbering Company. The gang mills in operation at the Eau Claire establishment while being in reality noted for first-class work, would yet occasionally fail of giving entire satisfaction to the proprietors; it was concluded, therefore, that greater power was desirable in their mill, and their 24-inch cylinder engine was to be replaced by a new engine of greater power; an order was sent to E. P. Allis & Co., of Milwaukee, but before the new engine could be built and sent on to Eau Claire, Mr. Pond had constructed his saw-jointer and the machine was tried on the gang saws at the Eau Claire mills of the Eau Claire Lumbering Co. The result was marvelous; the 24-inch cylinder engine was immediately found to possess ample power for all the work required;

the saws ran smoothly, rapidly, truly and in every way satisfactory. The result was the work of Mr. Pond's invention of a very simple machine.

It is well known by operators of gang saws that great care is necessary in placing the saws in position, and that still greater judgment is necessary in filing and afterwards so hanging them that every tooth does its whole duty and perfect sawing is obtained. It is known that, notwithstanding the greatest care, saws will "belly out," and the result of a few teeth doing the work which should be performed by the whole saw, tends to make the saws vibrate, run, and otherwise work imperfectly. Mr. Pond's invention remedies all this by the following process: While in the gang the saws are plumbed and the plumb line drawn on the saw blade; the saw is then placed in the saw-jointer and the surface of the clamps made to exactly follow the plumb line; the jointer with its files is then gauged and, running on an exact parallel with the surface of the plumb line on the saw, the teeth are jointed down until their points are all precisely on a parallel

with that line. This being done—the saws being previously swadged if needed—the filer may sharpen up the teeth while the saw yet remains in the jointer, which always forms an admirable saw bench, and the saw may then be placed in position according to the plumb line, and assurance guaranteed that for once a gang saw is rendered absolutely perfect and is hung true in its frame. Experience will then prove that the gang mill needs less motive power than ever before; will saw at least one-fifth more lumber in the same time with the same power; will saw lumber very much smoother; will save at least *seven-eighths* of lumber formerly rendered “culls” by imperfect sawing; will enable the saws to run longer without filing; and by their perfectness and trueness will be safe from liability to break. It is also proved that a saw will last as long again if perfected by this machine, as it, being continually perfect, may be worked safely when the blade is worked down to a very narrow width. In fact, mill men who will take pains to study the principal of this saw-jointer will see for themselves that the invention is almost invaluable in perfecting their gang saws and in obviating difficulties which have always existed, but until now were never fully overcome even with the greatest care and judgment in filing and hanging the saws. The Pond saw-jointer is manufactured at Eau Claire, Wis., and is sold at rates which will render its adoption certain in every gang saw mill. We recommend mill owners to investigate the merits of this invention, for its use will benefit them hundreds of dollars annually.

TRADE OF CENTRAL AND NORTHERN WISCONSIN.

The *Milwaukee Journal of Commerce*, which seems to be about the only paper in the southern part of the state that is alive to the developments that are going on in central and northern Wisconsin, says:

Until the building of the Milwaukee & Northern railroad, this city displayed not the least concern as to whether the trade of northeastern Wisconsin should be secured or not. Its merchants evidently had not learned that the counties of Oconto, Shawano, Brown, Outagamie, Winnebago, Portage, Waupaca, Marathon and Wood not only contains at least one-sixth of the population, and one-tenth of the wealth and business of the state, but in natural resources of water power, minerals, agricultural and timber lands, far exceeds any like area of southern Wisconsin, or of Minnesota and northern Iowa, whose trade has seemed so desirable to them. The trade also of the peninsula of Michigan—where one county annually exports more than any one year's wheat crop of Minnesota has ever been worth—has rolled by Milwaukee and passed its wealth like *Cæsar*, into the “foreign lap” of Chicago. The Milwaukee & St. Paul Railway Company after extending a branch to Berlin seemed to think that the extent of the wheat country had been reached, and coldly predicted disaster to lines struggling to penetrate the great timber region. It seemed not to realize the gigantic resources and natural wealth of the country north of latitude 44. The result has been that the St. Paul company, allowing rival lines to partially develop that portion of the state, finds itself unable to compete in this region in freighting or in the good will of the people. Milwaukee accordingly is obliged to suffer from a hostile sentiment engendered by the action of that company when the people of the pinery were offering almost any inducement for the extension of its line north from Berlin. The railroad system of central Wisconsin is assuming proportions equal to the demands of the business and trade of that section. Three important lines now center in Wood and Portage counties, of which the outlet directly south will be by the road from Stevens point to Portage city, whereas an extension of the Milwaukee & St. Paul would

have answered the same purpose and controlled an immense trade for Milwaukee that will soon be rolling over a direct line to more southern markets. It will be difficult to impress upon our readers any adequate conception of the amount of business that is to be thus diverted from Milwaukee. Anything short of a thorough investigation into the lumbering statistics of the state would afford no approximate idea of the number of laborers and teams employed, and of the sums of money required, to carry on the manufacturing of the billion feet of lumber now produced yearly in Wisconsin. It is sufficient to say that nearly all of the trade created throughout Wisconsin by that branch of industry centres in Chicago, while nearly all of it should have been controlled by Milwaukee.

Cannot something yet be done to secure at least a portion of this trade, is the practical question suggested by a review of the blunders in Milwaukee's past railway policy. Trade from the northeastern counties will, as the Milwaukee & Northern railway progresses, be somewhat diverted from its old channel, the Northwestern. It is probably not yet too late for the Milwaukee & St. Paul by an extension from Berlin, to command a share of the rapidly growing business of central Wisconsin. Proper efforts on the part of our merchants to thoroughly advertise to redeem the good will which has been lost by their former neglect and inattention, and to insist upon such regulations from the railroads as to rates and expedition of freights as will enable this market to compete with more remote ones, will gradually bring about a new state of affairs. Greater attention *must* be given to the fact that no locality in the west is more worthy of notice than northern Wisconsin, and that it will *pay* to look somewhat after that long neglected portion of the state. Let Milwaukee business men investigate the matter and ascertain how much they are now losing every year, and adopt such imperative measures as the occasion requires and their common sense may suggest.

The *Northwestern* gives the details of the recent destruction of the mill of R. T. Morgan & Bro. in Oshkosh. It places the loss on buildings and lumber at \$50,000, of which there was only \$10,000 insurance on the former and \$1,000, on the latter.

A LUMBERMEN'S ASSOCIATION.

In our first issue of the WISCONSIN LUMBERMAN we advocate the establishment of a "Lumbermen's Association." We find that the suggestions offered are meeting with notice, and that there is really a strong desire among prominent manufacturers and loggers to organize an association which shall somewhat assist in the regulation of matters pertaining to their business. A consideration of the question will show at once that an association might be formed which would materially assist lumbermen in the regulation of value of labor, and also have a tendency to assist in maintaining suitable prices for lumber. In conversation with Mr. W. T. Price, of Black River Falls, we learned that an effort was once made towards the establishment of an association, that fell through on account of insufficient energy and lack of well defined ideas of what was actually wanting. The lumber business of Wisconsin might be benefited thousands of dollars annually if a well directed and earnest effort was made towards a better acquaintance and understanding among the lumbermen of the different pine-ries. This object could best be accomplished by an association of the character of which we speak. Many prominent lumbermen will pass a portion of the winter at Madison, and during the session of the Legislature it would be a very easy matter to call a sufficient number of lumbermen together to organize and establish a "WISCONSIN LUMBERMEN'S ASSOCIATION."

We should be pleased to receive and publish communications on this subject, from those interested.

Problems In Petroleum.

A correspondent in the last number of the *Iron Age*, writing from Philadelphia, describes experiments in the use and transportation of petroleum which if successful will revolutionize certain branches of trade. He says:

The importance of this trade to Philadelphia may be appreciated by the statement that there were exported from this port during one week recently 1,484,300 gallons of refined, and 230,600 gallons of crude petroleum, while the receipts covered 26,213 bbls. of crude, and 27,500 bbls. of refined. The production of petroleum has of late been greatly increased by the discovery of new oil territory in Butler county, Pennsylvania and further by the discovery that the fourth sand rock, hitherto believed to be *ultima thule* in well boring, really covers another and probably equally great supply. All this of course greatly increases the supply, taxing the transportation facilities to their utmost, and vastly reducing the cost of oil. At present prices petroleum offers great inducements as a fuel in place of coal, and it is not surprising that the efforts of inventors should be turned in this direction. Hitherto the inventions in this line have not been successful, at least commercially. In the summer of 1872 the writer saw an apparatus for using petroleum as fuel for puddling furnaces, in operation at the La Clide Mills, St. Louis and the superintendent of the mill then expressed the opinion that the obstacles to entire success with it were only that the parties in charge of the matter were ignorant of the management of the puddling furnace. We have never succeeded thoroughly in burning liquid fuel for locomotive driving, but in both France and Belgium it has been accomplished. The advantages to be gained are patent, while the present and probably the future low cost of the material offers every inducement.

The Philadelphia and Baltimore Railroad Company has lately been testing, at the company's shops at Lamokin, Pa., 16 miles from this city, an invention of Mr. Kendrick, to use crude petroleum as a fuel for stationary engines. The vaporizing apparatus consists of a burner, an iron cylinder in which steam is superheated, and another iron cylinder in which the superheated steam is brought in contact with the gas. The burner and cylinders are first heated by burning a small quantity of benzine beneath them, after which the steam and crude oil are turned on. There appears to be no difficulty in burning the crude oil thus, nor are the cylinders coated with carbon or any residuum. The cost is itemized as follows: seven gallons of crude oil, at a cost of forty cents per hour, against seventy or eighty cents per hour when coal is used. The inventor further claims to be able to make, by this process, and illuminating gas at a cost of 60 cents per 1000 feet, with oil at 8 cents per gallon. That this would seem practicable, appears from the description of the new English

patent of Mr. Ruck, for the manufacture of gas from steam and petroleum, which is well explained in a late number of the *British Journal of Gas Lighting*. Here superheated steam is passed over coke and scrape iron in a series of retorts, and thence, after purification by oxide of iron, into a saturator containing refined petroleum or naphtha of 680 specific gravity. The cost of this gas is not to exceed 1-6. per 100 feet feet with coke at 20, and oil at 8d, or 16 cents, gold, per gallon. Such being the case abroad, it would appear that Mr. Kendrick's figures here are within the possibilities, and the more so since a contractor to supply gas to the new House of Correction, in this city, offers to provide a gas not exceeding in cost \$1 per 1000 feet, by a new process. To render petroleum sufficiently cheap to compete with coal as a fuel in iron works, the cost of transportation must be greatly reduced, and this subject is also under process of improvement. An able engineer, Mr. G. W. Platt, who has successfully superintended the introduction of the Holley system of water works, advance a scheme which he demonstrates as thoroughly practicable, for a pipe line from Titusville to Philadelphia, distance of 260 miles. The plan proposes a six inch cast iron pipe to be laid in an air line between the two points, with an allowance of 40 miles of pipe for undulations, or in all 300 miles. This pipe would hold 37,000 barrels of oil, and would present no greater difficulty in passing through it than is found with water, through our city mains. Pumping stations, at a distance of 5 miles apart, in the 40 miles between Titusville and the summit, will be provided, and reservoirs. The scheme proposes to deliver 23,000 barrels every twenty-four hours, at a cost of ten cents per barrel. The total cost would be \$4,406,150. and expenses of running, with interest, \$412,717 per annum, which, with a charge of 50 cents per barrel, would give an immense profit, while it is said the loss from waste in transport would not be as great as now in barrels or tank cars. This would not only reduce the price of petroleum at the seaboard sufficiently for the purposes of fuel given a successful process for burning it, but would greatly relieve the railroads, and permit greater amounts of Western produce to be carried. The importance of the subject insures attention from practical men, and the enterprise is likely to be carried out. The process for burning oil, referred to above, is being applied to locomotives on the Philadelphia and Baltimore Railroad, and will be thoroughly tested in a short time, when the result will be here announced.

The Marquette *Mining Journal* learns of a lumber sale of 500,000 feet to Cleveland parties at figures way down in the toe of the market's boot.

*THE WISCONSIN PINERIES.*GENERAL STAGNATION OF LUMBERING
OPERATIONS.

We have recently visited many different localities in the pineries of the Wisconsin, Black and Chippewa rivers with a view of furnishing the readers of the *WISCONSIN LUMBERMAN* reliable information in regard to the effect of the commercial panic on lumbermen and also to note particularly the present and prospective business of those pineries. Perhaps no class of business men are so completely distressed by the present monetary stringency as the lumbermen of Wisconsin. The reasons are obvious if we take a retrospective view of operations during the past two years and then consider the present situation. It is known that the season of 1870-71 induced very extended operations in logging; the great fires in the fall of '71 compelled heavy work in the pineries during '71-72, and as prospects still continued favorable (owing to the small amount of logs run to the mills on account of low water) there was no diminution of labor in '72-73. The result was that the spring floods of '73 brought forth from the pineries of the state an unprecedented number of logs and also floated to market on the Mississippi an amount of lumber increased over the usual run by millions of feet which had been tied up in rafts through the winter. The lumber markets were certain of being at least well supplied, and dealers saw that advantage could be taken of the fact that lumbermen had become extensive debtors on account of unfavorable sea-

sons for getting logs to the mills, and lumber to market, and therefor forced their own terms on the very many who were thoroughly cramped by indebtedness; therefore a greater proportion of lumber sold was bought with notes payable this fall during the months of October and November. The panic coming on prevents the payment of those notes in very many, or nearly all, instances, and the lumbermen who were in very close circumstances before the first of October, now find that they are completely prevented from engaging in logging operations this winter. In fact very many who are possessed of large property in pine lands, mills, &c., find themselves short of even the few dollars necessary to meet their daily household expenses. It is certain then that only a very few, proportionally speaking, will engage in logging this season. Among those who do contemplate work in the woods, we found invariably that their calculations were based on doing just sufficient amount to keep at labor the teams and men already in their employ, to furnish barely a sufficiency of logs to run their mills during the next spring, or to fill contracts made before the monetary stringency was fully developed. In case of contracts we found many instances where by mutual agreement, the bargains were cancelled.

Two months ago prospects indicated that at least 50 per cent. of the usual logging and manufacturing operations would be carried on in the Wisconsin pineries; four weeks ago that estimate was reduced to 25 per cent. and now our best informa-

tion induces the opinion that 20 per cent. of the usual work will be all that the Chippewa and Black river lumbermen can accomplish this winter, while on the Wisconsin we think we may safely say that 15 per cent. of the amount performed last season will fully cover the operations for '73-74. No one fact more forcibly presented itself than that of the condition of laborers; in localities where heretofore they have held supreme sway in point of price of labor, they are now willing to engage for the season at any terms proposed by employers; and while wages are now within legitimate bounds, there is a far greater desire to hire out for the entire season than we have ever before noticed in the pineries. As a summary of the information furnished and of our personal observation during a three weeks tour among the pineries mentioned we may say:

The mills are nearly all shut down. The amount of lumber in the pile is not in excess of the usual stock. Preparations which one month ago warranted belief that 25 per cent. of the usual logging would be carried on, have been stopped to an extent which now warrants us in saying that 18 per cent. of last winter's work will be a close approximate to the amount which will be accomplish this season.

Very many who are now commencing operations in the woods will be obliged to stop unless the monetary stringency is relieved before January first. Lumbermen have wisely concluded to let off a little of the steam which has engendered former prices of labor and supplies, are forced to try

the experiment of economy and will remain passive until another spring shall determine the value of pine boards. The policy which has thus been forced upon the manufacturers and loggers will undoubtedly rebound to their future benefit and may perhaps have the good effect to so regulate operations in the years to come as to bring the business of lumbering to a standard of close and careful attention which is necessary to good and economical management, but which has rarely been bestowed by those engaged therein. There is no money, comparatively, in the pineries; yet there stands the great natural wealth of our state and creditors who are now, or have been carrying lumbermen may feel assured that no class of manufacturers will so quickly and surely work out of present difficulties as they. The hard winter and spring will be lived through somehow and a glorious summer will come to the relief of the lumber market, lumberman and their creditors.

ADVANTAGES OF WISCONSIN'S LUMBER TRADE.

The Wisconsin pineries possess certain material advantages over those of both sides of Michigan. The great product of the Saginaw valley has to compete in Quebec, Albany, N. York and Boston with the pineries of the Ottawa, of northern New York and of Maine. The east shore of Lake Michigan is confined entirely to the markets of Milwaukee and Chicago. The principal pineries of Wisconsin on the other hand, have the choice of a wide range of markets. The leading, Wisconsin manufacturers own yards in St. Louis, Hannibal, St. Joseph, Quincy,

Davenport and Dubuque. Besides water courses to these points, the great pine region of central and northeastern Wisconsin already has railroad communication to the south and west, as well as to Milwaukee and Chicago, although the great advantages of our railway system are just beginning to reach the lumber trade. By reason of these advantages in the choice of markets and in the distribution of products, the lumber manufacturers of Wisconsin have not yet, to any considerable extent, in spite of the series of adverse seasons, had to really sacrifice their stock for less than cost and a small profit besides. This is a statement that could not be ventured concerning any other section of the country engaged in the manufacture of lumber.

TAKE COURAGE !

We are certainly not without reason and facts in exhorting business men of all classes to be of good heart, and while they prepare for the worst, to look on the brighter side of affairs. It cannot be that this broad land—with its vast material and moral energies; with its incalculable resources above the soil, in the soil and under the soil; with its splendid crops on hand; with railroads, it is true, more than enough for its immediate necessities, but built at any rate and ready for the inevitable further development of the country; with principles of government and institutions that are more and more asserting their vital, recuperative force with every instance of the exposure and punishment of fraud and wrong doing; with an unchecked contribution of bone and muscle and industrious, frugal habits, from European emigration—is destined to

experience serious or permanent disaster because the calculations of Wall street are deranged. It makes no real difference to the country whether Vanderbilt holds twenty-five or a hundred millions of railway stock values. The failure of the government bankers and their loss of the gains that too easily came to them in the inflation of war time, is no real calamity to the country. The extraction of two hundred millions of water from the railway stocks of the country will be a general benefit, not a catastrophe.

The temporary impairment of the system of credit by which the business of the country has been done, is indeed a calamity to every branch of business. Yet it is to be believed that the troubles will bring with them a remedy that will give us a safer banking system, a more flexible currency, more money for the actual judicious development of the country and less for wild speculation, and a firmer basis of credit, than we have ever had before. At all events, let every business man remember that "panic" is the stupidest mental epidemic in the world, that there are no grounds for general distrust in this country to-day, that the country contains all the solid elements of wealth that it had six weeks ago. It is just the time for a good deal of sound, hopeful thinking, for mutual encouragement and helpfulness and accommodation. The country is all right. The dislocated machinery of business will re-adjust itself pretty soon.

Let every one who is at all disposed to croak look squarely at these

few figures. They will show him what a fool he is, or was going to be: The imports at the port of New York up to October 25 of this year were **\$35,875,398** LESS than for the same period last year. The exports of produce this year were **\$58,711,603** GREATER than for the same period last year. During the same period our export of gold has decreased **\$19,297,747**. As this rate the balance of trade in our favor for the year of 1873 will be over **\$100,000,000**. For the year of 1872 the balance of trade against us was **\$100,617,000**.

More than this. The west has wheat enough to fill every mouth in the land, besides an extraordinary surplus for hungry Europe. The south has an unprecedented cotton crop which Europe must have to keep its populations busy.

These are facts. They show that the business of the country is sound and that prosperity is in store, even though banks are paying their depositors instead of accommodating trade, and even though lumber manufacturers can't sell their wares for a good price nor get right away the pay for what they have sold.

Let's do away with Mr. Bugaboo and, if we can't be altogether cheerful and sensible, be at least as sensible as we can.

ONE of the largest lumbermen of the Wisconsin river pinery, the other day had cross the street to a neighbor, to borrow two dollars to pay his subscription to the WISCONSIN LUMBERMAN. He could not afford, he thought, to be without the only publication ever started in Wisconsin in the exclusive interest of the leading manufacturing business of the State.

TO CREDITORS OF LUMBERMEN.

THE lumber interest of the Northwest, is to-day in a sound and hopeful condition, although the complete financial derangement of the country, coming after a succession of dull seasons for lumber has distressed it greatly, and made lumbermen exceedingly blue. The creditors of the lumbermen should bear in mind that every great manufacturing establishment, however short of money it may be just now, holds in *money's worth* many times the amount of its whole indebtedness. These establishments have invaluable pine lands, logs that must appreciate in value while they are waiting for the saw, buildings and machinery, manufactured stock for which the future demand is bound to increase out of all proportion to the winter's work, and assets now maturing from perfectly sound customers who are temporarily prevented from meeting their obligations by the sudden interruption of the credit system on which the business of the whole country has so largely depended. There is no class of debts in this country to-day so well secured by actual money's worth as those of the lumbermen of Wisconsin and the northwest.

Creditors of lumbermen will do well to bear these facts in mind. The exercise of forbearance, good nature, courage and common sense, will be sure to pay.

The *Enterprise* of Muskegon, Mich., reports the destruction of 2,000,000 feet of lumber, and the narrow escape of the salt works, of Ballentine & Co., of that place, by an incendiary fire.

The portable saw mill of Andrews & Rogers was recently destroyed by fire at Gates, Mich. Loss, \$4,000. The residents of that place subscribed \$300 to rebuild it.

WHAT THE WISCONSIN LUMBERMAN HAS TO SAY FOR ITSELF.

It has no apology to offer for starting in the face of a peculiarly gloomy crisis in the trade, because it is confident that the darkest hour is just before dawn. The conditions that have depressed the lumber trade for two seasons are exceptional and transient. The conditions that prove its soundness and guarantee its prosperity are broad and permanent. The WISCONSIN LUMBERMAN has no apology, either, for coming down on lumber dealers and manufacturers for a two dollar subscription at a time, when dollars with lumbermen are scarce as hen's teeth. It intends that they shall immediately find their return for whatever effort they make to sustain this magazine.

It has, indeed, to express its gratification and surprise at the rate at which subscriptions are already pouring in. These are mostly by mail, in advance of any personal solicitations, from dealers and manufacturers in Wisconsin, Michigan, Missouri, Pennsylvania and the far east. From all quarters we are receiving greetings and substantial encouragement for the publication of which the leading Wisconsin industry has stood so long in need. A second class, for whose information this publication is also designed—operatives, including loggers, raftsmen, and mill hands—owing to the present condition of the trade, we are not warranted in addressing at the present time, although we shall continue to make the WISCONSIN LUMBERMAN really valuable to all classes concerned in the conversion of the forest into articles of general use. Carpenters, builders and shipwrights, and their employers, the ultimate consumers of lumber—the merchant who has a house to build, the farmer who has lands to enclose and cattle to house, the far-seeing capitalist who is now ready to spring into the released field of activity in American shipbuilding—nearly all classes of the human family are

more or less intimately concerned in subjects appertaining to the habits, culture, preservation, manufacture, commerce uses, in short the literature, of wood. From all of these classes, we hope in due time to win a circle of acquaintance for the WISCONSIN LUMBERMAN.

Just now, however, we can reasonably look only to those whom it more immediately interests, and whose needs it directly seeks to serve.

For the present, and until the resumption of profitable activity among lumbermen, we shall not exert ourselves to find advertising patronage. We shall endeavor to make a publication that will command the support of subscriptions through its intrinsic interest and value to the trade. Our market reports shall be careful and elaborate; our articles shall be practical and honest, and no more sanguine than the great facts guaranteeing the future prosperity of the lumber trade warrant; our selections shall be liberal and comprehensive, forming a valuable compendium of the current literature of lumber.

We therefore invite the support, through a somewhat trying season;

1st, Of dealers in and manufacturers of lumber in Wisconsin, who are concerned in sustaining and improving the special organ of their interests and section.

2d, Of dealers in and manufacturers of lumber in other sections who are concerned in learning what is going on in the great northwestern field of the lumber supply.

3d, Manufacturers of and dealers in machinery and goods adapted to the demands of the lumber regions. To these classes we confidently address ourselves, being convinced that no member of either of these classes, whatever his temporary straits, will seriously pause in the investment of the subscription price of this magazine, to forward the objects of the WISCONSIN LUMBERMAN.

EDITORIAL NOTES.

LUMBERMEN should remember that the darkest hour is just before dawn.

THE way freight of the Marquette, Houghton and Ontonagon passenger train consigned to Negaunee one day last week, consisted of two barrels of whiskey and a coffin.—[*Marquette Mining Journal*.]

We should infer from this item that the iron interest of the northwest is even more depressed than the lumber.

MR. ANSON ELDRED, the owner of one of the finest and largest tracts of pine on the Michigan peninsular, is about completing another great mill, at Stiles, on the Chicago & Northwestern railway, where he is to manufacture shingles this winter, for the Chicago market.

A DISPATCH from Washington dated the 27th announces that the Attorney General has decided that the United States is bound to keep the dams of the line of water communication, between the Wisconsin and mouth of the Fox river, in reasonable repair, and that mill owners have no right, which is being done, to reduce the water so as to interfere with the purposes of navigation.

The *Eau Claire Free Press* has discovered a way for Wisconsin lumber dealers to get rich in spite of hard times. We afford our readers the secret with no charge beyond the subscription price of the WISCONSIN LUMBERMAN—two dollars a year in advance. It is this:

An easy way to get rich—buy good culls at eight dollars a thousand, pick out the clear pieces and sell them seasoned at twenty dollars. It can be done very easily if you only believe that in this republic intelligence and virtue are actually productive of opulence.

THE advertisements of this second number of the WISCONSIN LUMBERMAN are interesting. They represent nearly every branch of Milwaukee's great wholesale trades. They demonstrate the enterprise

of Milwaukee merchants, the value of the WISCONSIN LUMBERMAN as an advertising means, and the fact that the soundest business men in the northwest have undiminished faith in the ability of Wisconsin's lumbering firms to ride bravely through the present stress of weather.

The *Milwaukee Journal of Commerce*, of the 15th inst., says:

There was a rumor this week in this city that the big lumber firm of Thad. Pound had failed. A friend of the firm—that firm has many friends in this city—just now commercially speaking—traced up the rumor and found that it came from a notorious and irresponsible hotel gossip. A dispatch from Milwaukee to headquarters also elicited this reply:

"We haven't failed. We're alive and if we could find the man who started that story we'd be kicking like aitch."

MILWAUKEE is, after all, a pretty good place to do business with. Several big Wisconsin lumbering firms and merchants in the lumbering regions, which heretofore always traded exclusively in Chicago, have recently obtained credit in Milwaukee for necessary stocks of goods. The reason was not that Chicago was unwilling to carry them, but that it could not. Milwaukee, on the other hand, itself owning its fine stores and its great trades, is always able to extend material favors to sound parties, who have hundreds of thousands of dollars of assets and not a dollar in cash. "Slow Milwaukee" comes out strong, in times like these.

In Maine the universal complaint of the lumbermen is the low water of the rivers. On the St. John there are 40,000,000 feet of logs lying high and dry in the river bed, and it is feared that there will not be a rise of water, in time to float them to the mills before the ice forms, in which case they will probably prove a total loss.

THE LUMBER MARKET.

Quotations as given by the various commercial reports of St. Louis, Chicago and Milwaukee do not differ materially from prices that ruled one month ago. Less activity, in consequence of the stringency of the money market, is noticeable in the lumber trade both in effort of manufacturers to ship, or dealers to purchase.

Berthold & Jennings's (St. Louis) circular for the last week in October reviews as follows :

There were no new features in the lumber trade during the last week. The disposition among buyers to invest has not improved, and they are governed entirely by immediate demands. White pine is practically at a stand still and very little changed hands. Considerable is being received on stock account and for the market, which keeps the landings well filled. Levee and depot transactions are confined within very narrow limits owing to the light receipts (which are however in excess of demand), and the inability of holders to sell. Prices have suffered to some extent and a favorable reaction depends wholly on contingencies, although improvement will naturally follow an active or even fair demand. We quote : White pine, Chippewa and Minneapolis, \$13 to \$15. Wisconsin, \$13 to \$27. Shingles \$3.75 to \$4.00. Yellow pine dry flooring in demand at \$27 to \$28 for first and second rates ; \$15 to \$16 for third rates. Dimension, mill-run dall at \$14 to \$16.

Chicago reports, if carefully considered, will furnish evidence of an almost unexpected firmness in the lumber market, if the fact be acknowledged that the monetary stringency is in reality but just beginning to be appreciated throughout the west. We quote from the *Chicago Tribune* of October 31st :

THURSDAY EVENING, Oct. 30.

The market was very quiet. Only two or three cargoes were at the docks, and they were unsold at the close. There was a moderate inquiry from local dealers for common boards, and the market for these is nominally firm. It seems probable that grad

the receipts from now on will be very tight. Besides the fact that mills are preparing, or have already stopped running, vessels are getting scarce, so many of them have gone into winter quarters. To-day 2.25 was paid for a vessel to Muskegon, an advance of 25c. Prices are nominally unchanged, as follows : Mill-run boards and strips, \$14@ \$15 ; good to choice boards and strips \$19@ \$13 ; common or mixed do \$8@ \$9 ; joist and scantling \$8 ; shingles \$3.12½ ; lath \$2.

LUMBER FREIGHTS.

Manistee 2.50 ; Muskegon 2.35 ; Ludington 2.25 ; Grand Haven 2.00 ; Pentwater 2.25 ; Menominee 2.00@2.25 ; Oconto 2.65@3.00 ; White Lake 2.25.

AT THE YARDS.

There was no particular change in affairs at the yards. The disagreeable weather interferes with the local trade to some extent, but orders continue to come forward from the interior, and in the aggregate a fair business was transacted. Prices are unchanged as follows :

First clear.....	\$50 00@55 00
Second clear 1 inch to 2 inch.....	47 00 50 00
Third clear 1 inch.....	38 00 40 00
Third clear thick.....	43 00 45 00
Clear flooring, 1st and 2d together, rough	38 00 40 00
Clear siding, 1st and 2d together.....	22 00 23 00
Common siding.....	18 00 20 00
Common flooring, dressed, first.....	33 00 35 00
Common flooring, dressed, second.....	26 00 28 00
Wagon box boards, selected, 14 inches and upward.....	36 00 38 00
A stock boards.....	36 00 38 00
B stock boards.....	27 00 30 00
C stock boards.....	14 00 19 00
Common boards.....	12 00 13 00
Joist, scantling, small timber, fencing, etc., 16 feet and under, green.....	12 00 13 00
Pickets, square.....	13 00 15 00
Pickets, flat.....	12 00 13 00
Cedar posts, split.....	14 00 18 00
Cedar posts, round.....	17 00 35 00
Lath.....	2 25 2 50
No. 1 sawed shingles.....	1 50 2 00
A or Star.....	3 50 3 75
Shingles on track.....	3 25 3 37½
No. 1 sawed.....	1 25 1 50

Three dollars per car to be added when transferred, which charge follows the shingles.

Thickness—Five shingles to be two inches in thickness.

Length—Sixteen inches.

HARD WOOD.

Black Walnut—Counters \$100@ \$150 ; clear \$65@ \$85 ; common \$35@ \$50 ; cull \$20@ \$35 ; flooring \$80.
 Ash—Clear \$28@ \$40 ; common \$16@ \$25 ; cull \$10 @ \$75 ; flooring \$30@ \$40.
 Oak—Clear \$26@ \$40 ; common \$16@ \$25 ; cull \$8 @ \$15.
 Hickory—Clear \$28@ \$50 ; common \$20@ \$35 ; cull \$12@ \$18.
 Maple—Clear \$22@ \$35 ; common \$16@ \$25 ; cull \$10@ \$15.
 Butternut—Clear \$35@ \$60 ; common \$29@ \$30.
 Cherry—Clear \$40@ \$60 ; common \$15@ \$35 ; cull \$12@ \$18.
 Whitewood—Clear, \$30.00 @ \$40.00 ; common, 20.00@25.00 ; cull, 10.00@15.00.
 Wagon Stock—Hickory axles, per set, \$1.00@1.50 ; wagon poles, each, 45¢@55¢ ; box boards, 30.00@40.00.
 Florida red cedar, 35¢ per ft. ; mahogany, 30¢@40¢ ; do. counters, 50¢ ; rosewood, 50¢@80¢ ; white holly, 30¢.

In the Milwaukee yards, business during the last week of October was fair. Cargo prices are weak on account of the pressure on holders to sell. The latest cargo sales are an

indication of the market at this place.

Scoow South Side, Manistee, 32m small timber at \$11 and 60m scantling and joist at \$8.50.

Schooner Two Churches, Manistee, 85m scantling, joist and timber at 8.50 for scantling and joist, and \$11 for timber, 20 to 30 feet.

Schooner Guido, Manistee, 110m scantling and joist at \$9.

Schooner Challenge, Ludington, 70m scantling and joist at \$5.50.

Scoow Monitor, Ludington, 80m scantling and joist, \$8.50.

Schooner W. M. Brigham, Manistee, 90m scantling and joist, \$5.50.

Scoow Mendota, Ludington, 70m strips and boards, \$10.75; 32m lath, \$2.00.

Schooner Travis, Muskegon, 40m common course mixed, \$8.00; 100m lath, 1.87½.

We have received the following interesting report of the prospects on the east shore of lake Michigan:

MANISTEE, MICH., Oct. 19, 1873.

EDITORS WISCONSIN LUMBERMAN:—In regard to lumbering in this region I would say that the extreme low price we got for lumber this season has crippled the majority of the lumbermen to such an extent that not more than fifty per cent of the usual lumbering operations will be carried on this winter. As a general thing, men carrying over one-quarter of the old stock calculate to put in one-quarter of a new stock, so as not to exceed a one-half stock in all. At the present ruinous prices it does not seem to be a safe thing to do much in lumbering the next season. Our mills are nearly all running at one-half their capacity and if prices do not change for the better, then the majority will close down altogether.

Yours truly,
F. W. H.

A New Cereal.

A new cereal has been grown in Oregon, and the people are puzzled as to whether it belongs to the wheat family or more nearly, resembles rye, barley or oats, opinions being very nearly equally divided. From seven to ten stalks grow from one root, to a height of about four feet, and these stalks, or straws, are thin and hard. The radicals are tough, and spread widely. The heads are six inches in length and covered with a heavy beard, each filament being five inches long. The grain is double the length of a kernel of wheat, and, instead of being firm and compact, is hollow, the cavity containing glutinous matter. While the grain bears a closer resemblance to wheat than anything else, the straw looks more like that of rye or barley. Its origin is somewhat peculiar, the first grain having been taken from the stomach of a wild goose, by a farmer in Tillamook county, nearly three years ago. He was struck with its appearance, and planted it, and the succeeding season sowed the product. He distributed a portion of the second crop among a few friends in different parts of the state, who this year raised small quantities. It will require another year to determine the value of the grain.

Foreign Crops Short.

The returns from the various European countries in regard to the crops grow worse with each successive report. It is now estimated that the deficiency is so great that they will have to import 104,000,000 bushels of wheat before next harvest, which is some 14,000,000 more than previous estimates. France will have to import probably 75,000,000 bushels. In addition to the total failure of crops in southern Russia and Hungary, the information comes from Turkey that the Government has found it necessary, on account of short crops to prohibit the exportation of grain until further orders. This cuts Italy off from the source of supply from which she expected to make good her own deficiency.

America and Australia are the only grain growing countries of the world which have any large supplies of wheat, and it is doubtful whether the surplus will be equal to the demand even after it is reduced as it will be by high prices. The indications are indeed gloomy for the poor people of England during the coming winter, and while the result for us will be that we shall obtain liberally remunerative prices for our breadstuffs, the remote effect will be that prices of labor will be higher and we shall have to pay increased prices for our imports of foreign manufactures.—*Cincinnati Price Current.*

500,000 ACRES OF PINE AND FARMING LANDS FOR SALE!

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

WHITE PINE TIMBER, AND BEST NORWAY PINE.

The FARMING LANDS include many thousand acres of first-rate

BEECH AND MAPLE LANDS.

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

Terms For Sale.

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

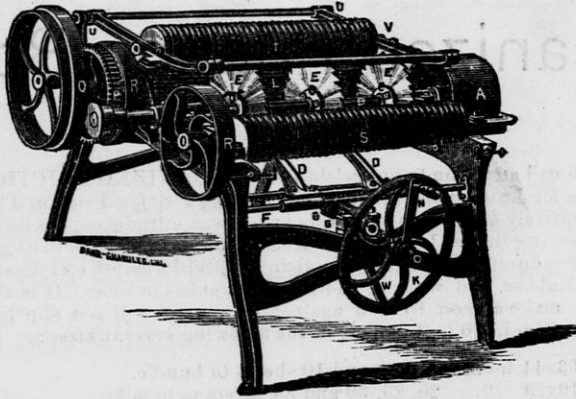
O. M. BARNES,
Land Commissioner.

SOLE AGENT FOR WISCONSIN OE

Caldwell's Pat. Parallel Gang Lumber Edger,

Patented October 13, 1868.

Patented August 19, 1873.



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

Also Agent for C. S. & S. BURT's (Lows and Evert's Patents)

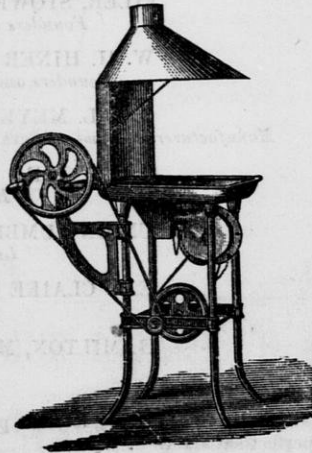
Shingle and Heading Machinery, ERIE CITY IRON WORKS SAW MILLS, ENGINES AND BOILERS,

AMES IRON WORKS

Portable and Farm Engine

GREENWOOD'S

HEADING AND STAVE MACHINERY,



Portable Forge.

Iron and Wood-Working Machinery,

AND ALL KINDS OF

Portable Grist Mills,

KAESTNER'S

Portable Forges, Supplies, Etc., Etc.,

Write or call for Circulars or Information, O. L. Packard's Machinery Depot,

103 WEST WATER STREET, MILWAUKEE, WIS.

IMPORTANT TO MILL OWNERS AND MACHINISTS.

Vulcanized Friction Board.

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

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

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

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

FILER, STOWELL & CO.,
Founders and Machinists, Milwaukee.

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

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

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

UNION LUMBERING CO.,
Lumbermen, Cuippewa Falls.

EAU CLAIRE LUMBER CO.,
Lumbermen, Eau Claire.

HAMILTON, MERRYMAN & CO.,
Lumbermen, Marinette.

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

FOR SALE BY

TYTUS, HAMILTON & CO.,

382 and 384 Broadway, Milwaukee.

PEIRCE & WHALING

Milwaukee, Wis.,

HAVE IN STOCK,

1,200 Tons American Iron,
50 Tons Sleigh Shoe Steel, Flat and Curved,
70 Tons Chain, All Sizes,
2,500 Boxes Horse Nails, North Western, Ausable,
Globe, National and Brundage.

AND A FULL LINE OF

Horse and Mule Shoes, Perkin's Patent,
Toe Calks,
Heavy Hardware,
Blacksmiths Tools,
Plow Materials.

SEND FOR OUR CATALOGUE AND PRICES.

PEIRCE & WHALING,

133, 135, 137 *and* 139 *West Water Street,*
MILWAUKEE, WIS.

Mann, Beals & Co.,

Manufacturers of and Wholesale Dealers in

BOOTS AND SHOES,

Constantly keep on Hand a Large Stock of

BOOT AND SHOE PACKS,

ESPECIALLY ADAPTED FOR THE

LUMBERING TRADE.

We sell more of this class of goods than all the rest of the Northwest put together.

Consequently can afford the trade a better assortment at lower prices than any other house.

THE LUMBERING TRADE A SPECIALTY.

MANN, BEALS & CO.,

91 *Huron Street,*

MILWAUKEE.

GOODRICH, TERRY & CO.

Have a Large and Well Assorted Stock of

GROCERIES

Suited to the Lumbering Trade,

Consisting of, in part,

500 KEGS OF SYRUP,

5 and 10 Gallons, convenient for the Woods.

Full Assortment of Canned Goods,

COMPRISING

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

KENTUCKY AND VIRGINIA

Plug and Fine Cut Tobacco

GREEN, OLONG AND JAPAN TEAS,

Packed in quantities to suit the demand of the camp.

DRIED FRUITS: Apples, Peaches, Cherries,

Blackberries, Turkish Prunes, Zante

Currants, Etc., Etc.,

SUGARS, COFFEES AND SPICES,

Goodrich, Terry & Co.,

314 AND 316 EAST WATER STREET, MILWAUKEE, WIS.

F. J. BOSWORTH.

D. B. HOPKINS.

E. C. HOPKINS.

BOSWORTH & SONS,

JOBBER IN

DRUGS, CHEMICALS, PAINTS, OILS AND FINE OILS,**MILWAUKEE,**

OFFER TO THE WHOLESALE TRADE,

- 500 Boxes Window Glass,
 500 Brls Raw and Boiled Linseed Oil,
 300 Brls Tar Pitch,
 200 Brls Rosin,
 1,000 Brls Extra Carbon and Headlight Oil,
 200 Tons White Lead,
 200 Carboys Muriatic, Nitric and Sulphuric
 Acids,
 500 Cases Niagara Star Bitters,
 1,000 Boxes Sun Chimneys,
 200 Brls Extra Lubricating and W. V. Oils
 500 Pks Ginger, Mustard, Nutmegs, Spices,
 1,000 Pks Whiskey, Brandy, Wine, Gin, Rum,
 A Large Stock of **BRUSHES** of all Descriptions.
 " " **DRUGGISTS SUNDRIES and FANCY GOODS**

✎ We Make a Specialty of the Lumber Trade. ✎

JOHN NAZRO & CO.,
WHOLESALE
HARDWARE,
MILWAUKEE,

Will occupy in a few months their

Mammoth New Store,

Corner of South Water and Reed Streets, near the Milwaukee
& St. Paul Passenger Depot,

ON THE SOUTH SIDE.

Meanwhile they offer at the old stand, on East Water Street,
all kinds of

SEASONABLE GOODS,

INCLUDING

CROSS-CUT SAWS, **WOOD SAWS,**
Champion, Lightning and Perforated Tooth. Lightning, Livingstone's, Braced and Common.

AXES,
Leading Brands.

HORSE SHOES,
Burden's.

COIL CHAIN,
Full Assortment.

Carriage and Tire Bolts, Augurs and Augur Bits, Rafting
Augurs, Skates and Sleigh Bells, and Stock Re-
plete with everything in the line of
Hardware, Metals and
Tinner's Goods.

LUMBERMEN'S REGISTER.

The following list is intended to represent every firm in the pineries of the Northwest who are engaged in the manufacture or the buying and selling of lumber, shingles, &c. The list will be published from month to month and names added just as rapidly as we can, through the medium of canvassers, obtain them. We propose making this Register perfect in all its details, but of course several months must necessarily elapse before we can hope to obtain anything like a full and complete list.

The Register will prove of much benefit to lumbermen generally. Names will be classified as nearly as possible in accordance with post-office address. We desire the assistance of lumbermen in correcting and making complete this department. Send us names of all reliable firms in your locality.

Upham Chas M & Bro.....	Angelica	Yerty J & Kripp,.....	Brandon
Laird & Co.....	"	Bowen E.,.....	Brodhead
McCartney D.....	"	Lamson C & Co.,.....	"
Foster N C.....	"	Usher & Hassinger,.....	"
Prickett T.....	"	Blake Francis W,.....	Burlington
Hall A & Co.....	Ahnapee	Deniston J C,.....	Cadiz
Young D,.....	"	Deniston C R,.....	"
Jewett Lawrence & Co,.....	Algoma	Martin & Deniston,.....	"
Sawyer P,.....	"	Staines J M,.....	"
Lane F,.....	"	Bock.....	Calumet
Pretz Z,.....	Alma Centre	Edwards J & Co,.....	Centralia
Reynolds & Tibbetts,.....	Appleton	Garrison & Blinohley,.....	"
Phillips Dr.....	Arena	Jackson H W.....	"
Yorker S. J.....	"	Lefevre H,.....	"
Goodrich J & Co.....	Augusta	Rumsey H T,.....	Chippewa Falls
Randall S,.....	"	Lyon & Co,.....	Clark's Mills
Parr G,.....	Avoca	Crosby P,.....	Clinton
Flower J H,.....	Bangor	Lampheer H P,.....	"
St. Louis & Wisconsin River Co,.....	Barnum	Wilcox Bros & Co,.....	"
Hodgman S & N, Spring c Mackie.....	Beaver Dam	Bond A D,.....	Columbus
Townsend Jones & Co, Spring c Second	"	Long & Henderson,.....	"
Gratiot E H,.....	Belmont	Aldrich V M,.....	Cooperstown
Goodhue W T,.....	Beloit	Wright P,.....	Coral City
Peck S W.....	"	Stricher M,.....	Cross Plains
Talbot H G,.....	Berlin	Bates, Hoag & Co,.....	Darien
Treadway S N,.....	"	James T & Co,.....	Darlington
Troan E,.....	Black Earth	Pratt & Carpenter,.....	"
Ward J S & Bro,.....	Black River Falls	Woodward T,.....	"
Edmonds J,.....	"	Clark H,.....	Deansville
Elliott A,.....	"	Gormley P & Co,.....	Delevan
Given P G,.....	"	Watson J J & Co,.....	"
Ice J,.....	"	Blake Samuel,.....	DePere
Price W T,.....	"	Kingsley W O,.....	"
Shepherd A,.....	"	Marsh G S,.....	"
Spaulding D J,.....	"	Ritchie James,.....	"
McCarty J,.....	Bloomer	Hiles G,.....	Dexterville
Nelson H & Co,.....	Boscobel	Nason S L,.....	"
Weston, Miner & Co,.....	"	Remington H W,.....	"
Pierce & Sly,.....	Branch		

Hoard & Earl,	Doylestown	Blair & Wagner, Jackson,.....	Janesville
Peck M N,	"	Fifield & Bro, River,	"
Knapp, Stout & Co,	Dunnville	Lovejoy & Blount, W Milwaukee,	"
Rosenberg & Co,	Dykesville	Rexford J D, Academy,	"
Stockman W H,	Eagle	Rockwood & Sons, High,	"
Eau Claire Lumber Co, yards St. Louis,	"	Schutt U, River,	"
Mc,	Eau Claire	Clapp J R,	Juneau
Robson John, Lafayette Mills,	"	Taber J B & Co,	Kunzasville
Smith W F,	Elkhorn	Backus N G,	Kenosha
Larson & Olsen,	El Paso	Grant & Son, Market,	"
Webster & Palmer,	Embarrass	Truesdell Gideon, 3 Main,	"
Fifield E,	Evansville	Hitchcock & Mashek,	Kewaunee
Parker A,	"	Murray, Slauson & Co,	"
Mack H & Bro,	Evanswood	Slauson, Grimmer & Co,	"
Shaw J,	Fall River	Stranky W,	"
Griffith J Q & Son,	Fond du Lac	Hurlburt H H,	Kilbourn City
Meyer Charles J L,	"	Cloespeck M,	Kosuth
Merayman & Co,	"	Kellnor M,	"
McDonald Alexander,	"	Black River Improvement Co,	LaCrosse
Sexmith G W,	"	Bright & Withee,	"
Moore, Galloway & Baker,	"	Russell W C, Main c Second,	"
Parker N & Co,	"	Gile Abner, Third,	"
Mihills N D & Co,	"	Hankinson & Son,	"
Hamilton & Finley,	"	Hewett & Woods, Main c Second,	"
Dale J L,	Forrestyille	Hixon & Withee, Main c Second,	"
Curtis & Cornish,	Fort Atkinson	McMillan Alexander, Main c Third,	"
Wilcox, Southwell & Co,	"	McMillan Duncan D, Main c Third,	"
Cook & Post,	Fort Howard	Mooer R M, Main c Second,	"
Howard Mill Co,	"	Nevins S L, Main c Second,	"
Lamb, Watson & Co,	"	Paul John, Front,	"
Schwartz & Kennwitz,	"	Polleys W H, Main c Second,	"
Clapp & Mead,	Fountain City	Rgot W C, c Second,	"
Matthales F & C,	"	Servis John,	"
Bowman W,	Frankfort	Sill Wm R, Main c Third, c,	"
Arpke J,	Franklin	Vincent & Edwards, Front,	"
Cooley & Race,	Fredonia	Washburne C C, Main c Second,	"
Bergtresser L,	Fremont	Weston RS Main c Second,	"
Schroeder & Co,	"	Barron John,	Lafayette
Edwards J & Co,	Frenchtown	Hodgens & Robson,	"
Freeman A W,	Genoa	Holbert Thos & Co,	"
Wightman E D,	Germantown	Mitchell & Clement,	"
Natchway H,	Gibson	Barney S P,	Lavalle
Clark & Thorp,	Glenbeulah	Sanford J F & Son,	"
Rasfans & Co,	Glen Haven	Hull Elijah,	Luha
Olds J S,	Glenmont	Leigh J,	Little River Mills
Coulson T,	Grafton	Bailey & Vincent,	Little Sturgeon
Arpen A,	Grand Rapids	Gardner, Davis & Co,	Little Saamico
Arpen J,	"	Mikeljohn James,	Little Wolf
Byron F,	"	Furitze W,	Logansville
Clark & Scott,	"	Hankevitz F,	Lomira
Langworthy, Mehan & Co,	"	Zeider L,	"
Meehan P & J,	"	Vaedsch & Runkle,	Lowell
Neeves Geo & Son,	"	Amy P,	Lyndon
Rabin John,	"	McMillan A,	"
Roe & Butterfield,	"	Bunker & Vroman, Mifflin c Carrol,	Madison
Sampeon H,	"	Stein C R, Washington av,	Rock
Scott Thos B,	"	Walsing & Bailey,	Maiden Rock
Graves J A,	Gravesville	Maiden & Jones, Quay,	Manitowoc
Modlin Henry,	"	Emerson L,	"
Earle & Case, Washington,	Green Bay	Guyles & Pankratz, Quay,	"
Lamb, Watson & Co,	"	Horn W H, Commercial,	"
McCartney D,	"	Hubbard H F,	"
Sanford & Co,	"	Reune Chas,	Maple Works
Schwartz & Kennett,	"	Brayton, L J,	Marquette
Shirland & Co,	"	Green J S,	"
Whitney & Foster,	"	Hamilton, Merriman & Co,	Marinette
Woodruff J W & Co,	"	Hilbeck H & Co,	"
Herling Theo,	Green Bush	McCarty Wm,	"
Bailey D. R.,	Hammond	Menomonee Mfg Co,	"
Schmidt Adam,	Harrisville	Spaulding, Houghtaling & Johnson,	"
Cook J,	Hartford	Bartlett L H,	Marshall
Mills J D,	Hartland	Bronson D W, Broadhead,	Mazo Manie
Olmstead Sheldon P,	"	Rein Daniel,	Medina
King P,	Helena	Hewitt Henry, Jr,	Menasha
McCutcheon A,	"	Pope, Ross & Co,	"
Roands W P,	High Cliff	Spaulding, Houghtaling & Johnson,	Menekaune
Tripp N D,	Hillsborough	Stephenson T & Co,	"
Fisher J, Lake,	Horicon	Knapp, Stout & Co,	Menomonee
Baily D R,	Hudson	Bainbridge W,	Mifflin
Palmer M P & Co,	"	Harker & Bainbridge,	"
Andrews F M & Co,	Jenny	Greene N S & Co,	Milford
Matthews Thos,	"	Brown & Evans,	Mills Centre
White C F,	"	Dunham L,	"
Jewett A & Sons,	Jewett's Mills	Lucas & Bro,	"
Sutherland Sol,	Juda	Greenman R J,	Milton

Hutchinson James,.....	Mineral Point	Eighme R P.....	Oshkosh
Pierce J H,.....	"	Hanson W E.....	"
White S,.....	"	Crowell & Son.....	"
Weyhausen A,.....	Mishicot	Webb, Albert & Co.....	"
Williams J W,.....	Monroe	Myers & Van Every.....	"
Dessert J R,.....	Mosinee	Williamson G M & Co.....	"
Goldsbury W,.....	"	James & Stille.....	"
Sterling W A,.....	Mukwa	Nash, Lines, Libbey & Co.....	"
Garland J,.....	Muscoda	Morgan Bros.....	"
Parr & Co,.....	"	Fraker J S.....	"
Bull & Bowers.....	Muskego Centre	Spalding & Peck.....	"
Houghton Geo G & Co.....	Milwaukee	Campbell Wm & Sons.....	"
Mayhew Bros.....	"	Libby D L & Co.....	"
Lurr & Rugee.....	"	Regan, Cheney & Pratt.....	"
Schmidt & Reichel.....	"	Doe & Miller.....	"
Judd T H & Co.....	"	Ripley & Mead.....	"
Comstock L & Co.....	"	Dorby & Curran.....	"
Chandler Walter S.....	"	McMillan R. & Co.....	"
Seyfried Martin.....	"	Sawyer P & Son.....	"
Brembach Fred.....	"	Paine C N & Co.....	"
Mabbett & Foster.....	"	Reed L B.....	"
Simpson E. B. & Co.....	"	Sheldon I. P. & Son.....	"
Pierce K. W. & Co.....	"	Laabs J & Co.....	"
Kellogg A S.....	Nashota	Buckstaff Bros & Chase.....	"
Bradford & Co,.....	Necedah	Foster & Jones.....	"
Burch G B & Co,.....	"	Henderson & Wilson.....	Palmyra
Dawes W F & Co,.....	"	Wentworth, McGregor & Co.....	Portage City
Shorey P & Co,.....	"	Bates & Hoag, Second n Main.....	Racine
Weston W & Co,.....	"	Hall & Scott.....	"
Sherry Henry.....	Neenah	Hood S & Co, Main c Second.....	"
Hewitt & Woods,.....	Neillsville	Murray, Slanson & Co, Second.....	"
King G W,.....	"	Peck S B & Son.....	"
Putnam L G,.....	Neesho	Tremble & Doud, State.....	"
Cooper & Jones,.....	"	French D C.....	Bandolph Station
Lamb W,.....	New Franklin	Cushman A G.....	Readstown
Latham & Smith.....	New Franklin	Smith Timothy,.....	Reedsburgh
Smart J & E (manufacturers) Bridge,.....	New Lisbon	Rudolph C J.....	Richland Centre
Ilale & Springsted,.....	New London	Richardson Mrs. W.....	Richland City
Bell Marcus,.....	New Richmond	Learmouth J.....	Rio
Crozier & Jacobs,.....	"	Barlow J B & Co.....	Ripon
Moore & Bro,.....	Northport	Pedrick M,.....	"
Wisconsin mng Co,.....	"	Bowman Na.....	Roundhill
Streeter J & A C & Co,.....	Oconomowoc	Moore J P & Co.....	Royalton
Vilas G, opp depot.....	"	Judd, Walker & Co.....	Saint Croix
Woodruff Bros, n depot,.....	"	Roberts George.....	Sandy Bay
Brungnest W,.....	Oconto	Halasz Chas.....	Sauk City
Hall & Server,.....	"	Obrecht U.....	"
Leigh John,.....	"	Cowles H H.....	Scott
Oconto Lumber Co,.....	"	Carrol S.....	Seneca
Johnson & Co,.....	Omro	Campbell Y.....	Sharon
Knapp L E.....	Oshkosh	Treat J A.....	"
Jenkins J & Co,.....	"	Naber & Wiley.....	Shawanaw
Harris M,.....	"	Hockner A.....	Sheboygan
Osborn & Christenson.....	"	Schrage Joseph.....	"
Conlee Bro & Co.....	"	Weeks A L.....	"
Lane C & W.....	"	Haseltine C P.....	Sherman
Gill & Son.....	"	Kelly W P & Co.....	"
Copeland Alex.....	"	Stafford & Gray.....	"
Freeborn John.....	"	Nutwig Ole.....	Siegel
Turner Bros.....	"	Harriman Samuel.....	Somerset
Sturtevant & Son.....	"	Irwin O L, Maple.....	Sparta
Stevenson Chas.....	"	Johnson S E.....	Springfield
Bray Jefferson.....	"	Stafford L B.....	Staffordsville
Danforth Josciuh.....	"	Bailey D C.....	Stevens' Point
Danforth E M.....	"	Blake & Mitchell.....	"
Edwards Henry.....	"	Benson P & Bro.....	"
Elwell Joseph.....	"	Burns, Thompson & Co.....	"
Farrow T H.....	"	Boynton N.....	"
Jewell, Lawrence & Co.....	"	Brown E D.....	"
McNair Jas.....	"	Burr, Emmons & Co.....	"
Barnes W W.....	"	Bean T G & Son.....	"
Doughty & Bro,.....	"	Campbell P.....	"
Streeter Geo.....	"	Clark Owen.....	"
Rockwell & McCord.....	"	Cooper B F.....	"
Reynolds Paul.....	"	Cronkhitte, Plummer & Co.....	"
Bray & Chote.....	"	Clements D R.....	"
Lynch John.....	"	Cook Cornelius.....	"
Wall & Fitzgerald.....	"	Curran H & J D.....	"
Rumery & Kellogg.....	"	Clifford Wm J.....	"
Hutchinson Thos.....	"	Gilchrist A B.....	"
Mller L J.....	"	Goodhue Geo J, Jr.....	"
Fuinely & McDonald.....	"	Gamble Ross.....	"
Wetherby David.....	"	Hungerford Seely.....	"
McAllyster J P.....	"	Hutchinson & Bro.....	"

Homestead Seth.....	Stevens Point	Lewellen & Lunn.....	Waterloo
Hubbard.....	"	Squires & Sheldon.....	"
Karner S H.....	"	Coe O K.....	Watertown
Kelly Bros.....	"	Hamlin & Sleeper.....	"
Knox Bros.....	"	Streeter J & A C & Co, W Water.....	"
Meehan Bros.....	"	Hammond Alfred.....	Waukechon
McCulloch H D.....	"	Semple A.....	"
McDill T & Bro.....	"	Semple F.....	"
McMillan & Sons.....	"	Kimball R N, Madison.....	Waukesha
Moe Louis I.....	"	Richardson Silas.....	"
Lester and Plummer.....	"	Morse O A.....	Waupun
Park G L.....	"	Yewdike A H.....	"
Pike E L.....	"	Andrews & Parcher.....	Wausau
Perry I & J.....	"	Ancutt & Callon.....	"
Quinn Jas.....	"	Allen Henry.....	"
Rennie John.....	"	Bernhard & Simpson.....	"
Robeson J M.....	"	Brown John.....	"
Reading & Van Order.....	"	Clark J C.....	"
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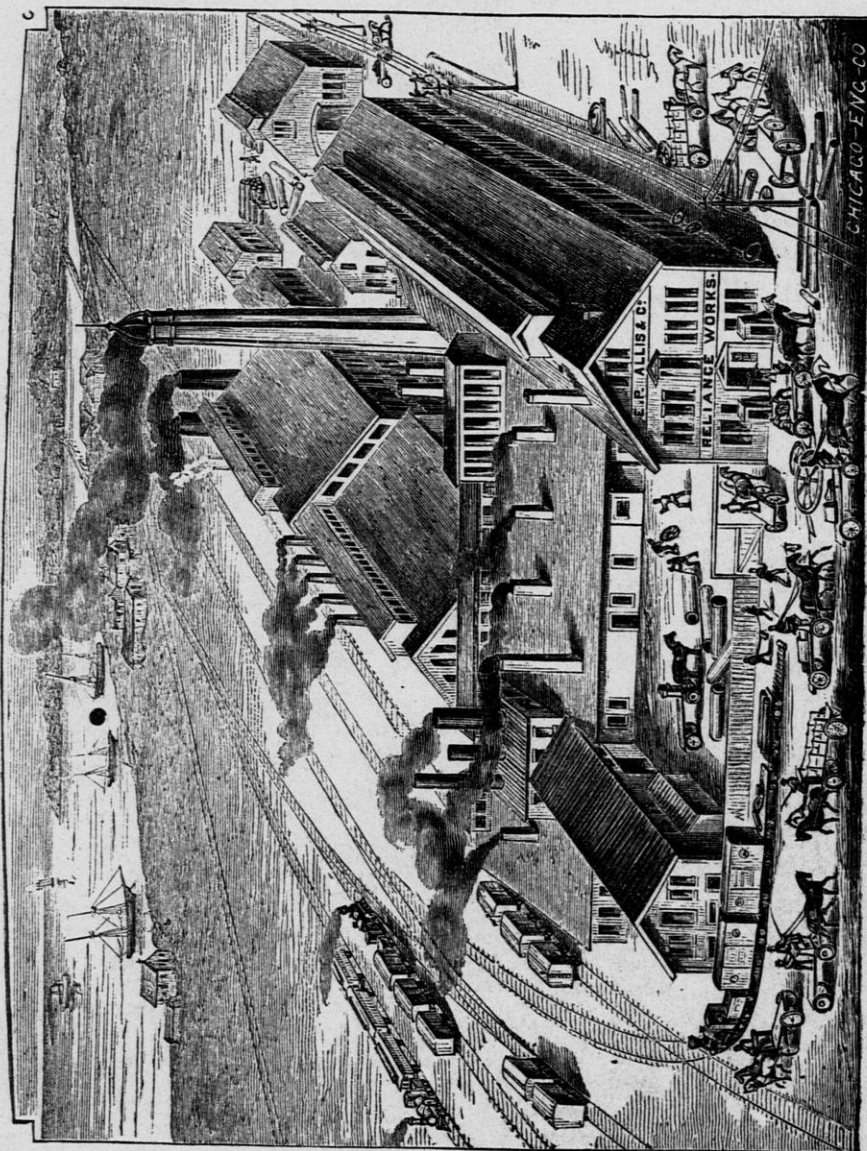
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