

## LAKE MICHIGAN TRADE—AN IMPENDING CHANGE.

That the lumber trade of the Lake Michigan districts is passing toward an important change can be plainly seen. The tendency to transition is especially noticeable in this city, where a large portion of west Michigan, upper peninsula and Green Bay lumber finds a market. The past two years of general depression and close competition, to sell on a weak market has nearly wiped out the profit margin between mill and retail yard, when the lumber has to be handled in a wholesale or jobbing way. This has caused manufacturers here, who have distributed their lumber as wholesale dealers, to conclude that lumber at the mill, or by the cargo, has more profit in it than when run through the yards in the line of assorted stock. Some of the Menominee manufacturers are seeking to place their business on a more profitable basis by relinquishing their yard trade in this city, piling at the mills and shipping direct to retail yards or consumers. Others contemplate throwing up the grading and finer manipulation of lumber entirely, and substituting therefor the selling in cargo lots, or in any way the call may come to them.

It is the general impression among the wholesale dealers of this city that the carrying on of yards here is so costly that a handling bill cannot be made in the sale of lumber, to say nothing of fair profits. But this cannot be the real reason of the merchants' dissatisfaction, for with the exception of difficulty of obtaining a safe line of insurance, and a late increased rate of insurance, it costs no more to run a yard now than it did five years ago. Indeed it may be asserted that a yard can be conducted more economically now than it was before dock rates weakened, as they have done during the past two years, if it were not for insurance.

The fact is that the cause of so much dissatisfaction with the yard trade is the fierce competition between the various manufacturing districts, which has grown worse under the influence of depressed demand, low prices, and the new transportation facilities that have been furnished. By reason of the last named evolution, new fields of production have been made accessible, and new avenues to market have been opened up. It has come to this, that a buyer in Kansas, Nebraska or Iowa, can have a choice of any market along the river from St. Louis to St. Paul, of any mill stock in Wisconsin or the upper peninsula, or he can even go around the lake in lower Michigan, if he likes, and thus steal a march on the Chicago wholesale dealer—all because the railroads and the seller will part the Chicago profit in the middle and divide it between them. Thus the manufacturers are brought to the conclusion that there is no object in trying to distribute their product through yards when it can be sold at a fair profit at the mill, without so much risk and worry as the yard business involves. Besides, an important factor in the new departure is increasing demand in the east for product—a requirement that has recently taken a longer reach westward, and grasped larger handfuls than formerly. In order to get what they want, eastern buyers are offering a little more for lumber than it would bring in this or other western markets. This tends to a stiffening of cargo values compared to prices in the yards. The mill owners along the lake shores have also acquired sufficient capital to hold their lumber for all they can get for it. In other words, the conditions that prevailed a few years ago have been reversed. Whereas once the dealers or factors in lumber held the purse strings and permitted the mill men to go on with their sawing by loaning them money, now the manufacturers are the capitalists of the heavier calibre of the two. This change in circumstances enables the mill owners to more nearly hold the balance of power than formerly, and insist on prices that are not favorable to the wholesale handlers.

Besides, the tendency of the retail dealer and the contractor is to go to the mill for their lumber. Retail handlers are also becoming capitalists, for they have relatively made more money within the past two or three years than the wholesale merchants, for the reason that they have been able to buy at almost their own figures. The handlers of large stocks in a

retail way are more than ever inclined to buy of first hands, and thus secure the profit that the wholesale dealer is supposed to make by assorting.

What, then, will be the result of the change in the lake white pine trade that seems inevitable? Will the wholesale trade of this city, South Chicago, Michigan City, Milwaukee and Racine be wiped out? Probably not; but it will, within a few years, fall below its present proportions. While the white pine that is accessible to lake ports lasts, there will be stocks held in this city and at other points for sale by wholesale. The business of assorting will be maintained, if for no other reason than that retail handlers are constantly running out of sorts that have to be supplied at short notice. But the jobber will also more and more cultivate the retail trade at home as well as throughout the country. The time will come when the holders of stock here will lose their distinctive character of "wholesalers," and will sell in round lots at wholesale prices only as an incident of their business, as do large country retail dealers of merchandise sometimes. But this market will always remain a large repository of assorted stocks, which can be drawn upon as occasion requires, by the trade at large.—*Northwestern Lumberman*.

## WARPING OF TIMBER.

W. S. Stevenson writes as follows to the *Timber Trades Journal*:—There is a great amount of popular error associated with the wood of the south side of the tree, it being held that the centre or pith is nearer to the north, and that the annular layers of wood are thicker on the south, and that they possess various degrees of density, shrinkage, &c. This is put forward as a rule, whereas it is only a rare exception, and, wherever it is pronounced, it is invariably traceable to local and other influences. In forest-grown trees, the heads of which are small and uniform in height, the growth of the tree is upwards, and the branches and foliage form umbrageous heads fairly equal all around. In the sections of such trees the woody fibres are found fairly and evenly disposed, the pith, or medulla, in the centre, and the wood on the north and south sides identical in every way. It follows from this, that, as forest grown trees furnish the bulk of the woods of commerce, the question of north or south side wood has no practical appreciable bearing upon the trade. In trees grown in the open, as in the centre of our fields, the stems will be short, the lateral branches large, and the heads, as a whole, well rounded. The reason of this is that the light which is the life of the tree, is all around them. The sides towards the sun, say the south, may possibly be the most verdant, but as the sun is at a great altitude during the few months of the year it has influence upon vegetation, but no marked action upon the disposition of woody layers on the south or north sides of timber trees. The above close and open-grown trees for the rule of vegetation, and we must look to the exceptions for any details touching the questions advanced by "Zero." Take a wood or plantation occupying a given area of ground, the trees surrounded by others will be of straight and uniform growth, whereas those on the outside fringe or skit will be distorted. Such trees, from being partially shaded from the light, will grow all upon one side, the side to the light. Here they will put out large lateral branches, and form thick layers of wood upon the stems, and develop great roots to correspond with the branches above. Such trees in sections will show annular layers of woody matter, those towards the open side thick, soft and porous, and those towards the shaded side thin, hard and horny. It matters, say, in England, little whether the light or open ground is on the east, west, north or south, for, wherever it is, there we shall find the thick and thin layers of woody matter, irrespective of polar position. To this rule of one-sided growth there is the exception of trees depositing their woody fibres in spiral form; the position of the pith, or medulla, in such trees would be erratic. You might in a section, say three feet from the ground, expect to find it inclining to the shaded side, whereas it might be found directly opposite. It is true you may

find exceptions in forest growth, for where trees are grown on a hillside, one sloping above another, the foliage will all be produced on the side of the trees towards the light, and the pith or medulla, be found, where spiral growth does not intervene, inclining to the sides where the vegetation is weakest. It would matter but little whether such hills rose towards the east, west, north, or south, the vegetation would all incline to the light. In the far north of Europe the case is somewhat different, there the north and south have distinct influence, the trees being stunted, and only putting out branches towards the south. Linnaeus noted such trees in his travels in Lapland, but was unfamiliar with them in the centre of Sweden. He remarked that the wood on the north sides of the fir trees (*Pinus Sylvestris*) was so hard, tough, and close grown that the Laplanders made their bows of it, and had recourse to it for purposes where hardwood was required. It is fair to suppose that "Zero," in his experience of wood, will never come across a tree so influenced in their growth by the south and the north; but if he does he will find the south sides soft, light and shrinkable, and the north sides hard, heavy and subject to little change by the extraction of the moisture. "Zero's" question is put under the erroneous supposition that all trees are influenced in their growth towards the south and north; I therefore find it impossible to frame a clear or fitting answer.

## LARGE OR SMALL ENGINES—THE SAFE SIDE.

The natural and commendable desire to be on the "safe side" in making a calculation may be, and often is, carried to an extreme, which leads into a greater error than that which it is sought to avoid. A man is going to put in an engine; he has often heard and read of the wastefulness of too small a motor; and so, to be on the safe side he orders an engine which is correctly proportioned for about four times the load which it will be run under, reasoning that a pig horse can drag a little load but a little horse cannot drag a big load. There is this difference between a horse and an engine; that while the big horse might not cost any more to buy or to keep, both the selling price and the cost of running an engine increases with its size, owing not only to the increased friction of the larger engine, but to the fact that in order to keep it from exerting its great power it must be run with low steam, a high grade of expansion, and at a very low speed. The owner finds in consequence that he has paid a number of hundred dollars more than he needed for a machine which is less economical than the smaller and cheaper would have been, in order to be on the "safe side."

It is quite as possible, though not so frequent in occurrence, that the boiler power may be too great as it is too little, and as for the boiler material the government authorities are obliged, in the interests of safety, to restrict the fire sheets to a given thickness.

Many superintendents and managers will, to be on the "safe side," fit their boiler room up with all manner of patent traps and get it where it will almost run itself, or so that anybody can run it, and then to be on the "safe side" of the ledger they put any "thing" in to run it. Any "thing" depends upon the safety automatic machinery to look out for everything—he does not even look after the machinery itself, and when it slips up at some critical moment with more or less damage, who is to blame? Any "thing," the automatic safety appliance, or the man who substituted it for brains, to be on the "safe side."—*Saw Mill Gazette*.

## BIG WEEK'S BUSINESS.

It is almost impossible to interview T. W. Hastings, the stirring, pushing, enterprising head worker in the business of Mosher & Fisher, of West Bay City, Mich., without getting some interesting and reliable facts for the ear of the reading public.

"How is business, Mr. Hastings?" said the pencil pusher.

"Business is excellent, if we may judge thereof by our own transactions," retorted Mr. Hastings. "During the week back the transactions of Mosher & Fisher have been on a scale of magnitude. Their sales and purchases

have been as follows: 350,000 feet of lumber sold to Ohio parties; 4,500,000 to eastern parties; 1,100,000 to western parties. They have also purchased during the week 10,000,000 feet of logs from Thomas H. McGraw & Co.; 25,000,000 feet of logs from Sibley & Bearinger; these latter were intended for East Saginaw mills, but will be brought to Bay City for conversion into lumber; they also purchased during the week 5,000,000 feet of lumber, and invested a sum appropriating \$50,000 in pine lands."

"How much do your sales amount to since the close of navigation," queried the seeker after news.

"At the close of navigation the firm had lumber on hand aggregating 21,000,000 feet."

"They have sold up to date 20,000,000 feet."

"The purchases during the same time amount to 5,000,000 feet."

"Leaving lumber on hand at this date 6,000,000 feet."

"Since January 1st, the log transactions of the firm are as follows: Purchased of Smith Bros., Cheboygan, 3,000,000 feet; of T. H. McGraw, 16,000,000 feet; of Sibley & Bearinger, 25,000,000 feet; they have cut on their own land 10,000,000 feet; and having 5,000,000 left over in the Tittabawassee, it gives them a stock for the next season of 57,000,000 feet."

"The mills of McLean, Son & Co., Malone & Co., Laderach Bros., Miller Bros., and Green & Stevens will do the manufacturing for the firm during the season of 1884."—*Lumberman's Gazette*.

## BEARINGS FOR MAIN SAW MILL SHAFTING.

In reply to "W. S. F." the *Timber Trades Journal* says that bearings for saw mill shafting are in the latest and best practice made considerably longer than they used to be, with a very satisfactory result both as regards wear and tear and steadiness in running. If you are remodelling your mill we should recommend you to put in bearings about four times as long as the diameter of your shaft, and by all means have them arranged to pivot so that they can adjust themselves to any deviation in the shaft. This is an important matter, but one very often lost sight of, consequently there is a considerable daily loss through increased friction and wear and tear on the bearings, and more power is consumed in driving. It is astonishing how these important matters are neglected even in these days when people should know better. As an illustration we may say we recently went into a box factory where the power was conveyed by a twisted belt running at 10 ft. centres, and the saw benches were about the same distance off, and almost immediately beneath the main shaft. We need hardly say that, with this arrangement, the loss was large, probably nearly £100 a year from loss of steam, loss of speed on benches through slip on belts, increased wear on belts and bearings, less output from benches and worse work. When we pointed it out the reply was, "Yes, perhaps so; but it has done for us for some years, and I don't think we shall alter now." We had therefore nothing further to say.

## MATCHES.

Many people now living can remember the time when there were no matches, and people were obliged to depend upon tinder boxes and similar contrivances when they wished to strike a light. It is possible that the time is not far distant when the matches now so universally used will again go out of use. At least a patent is said to have been granted in Russia for a lucifer match that can be used an indefinite number of times, the wood being impregnated with a special chemical solution. Match making is one of the Canadian industries that has attained a high state of development, and matches have usually been much cheaper in Canada than in the United States, partly because the American Government imposed an excise duty on matches, and every box sold had to have a Government stamp.—*Montreal Star*.

The tug *Nat Stickney* has been chartered by the Cheboygan Lumber Company to tow logs from Spanish river, Ont., to Cheboygan, Mich., for the season to come.