

## REDWOOD IN CHICAGO.

A California correspondent writes the *Lumberman* in regard to the status of California redwood in this market. He says, "can you inform me whether there is any particular prejudice among the dealers and carpenters against the wood, or whether the light demand is the result of high prices and limited supply? So far as we know on this coast the latter is the cause." This opinion is the correct one. What prejudice there may have been in the past seems to have about passed away, and now consumers are perfectly ready to use it for any purpose for which it is adapted, provided it can be obtained, and the price is not too high.

The wood has had to contend against the difficulty of a small and uncertain supply. Various firms have tried to handle it here; but, as they were not willing to invest the necessary amount to carry a full stock here, and depended on shipments from California, as they received orders, in which shipments they were often disappointed from lack of dry stock in the hands of their coast connections, the business has languished. We may be doing an unintentional injustice to some Chicago dealers; but, as far as we know, there is at present but one firm in the city that has such arrangements on the coast that it can guarantee shipments, and even this firm does not carry any stock worth speaking of here. Its method of carrying on the business does well enough in the case of large contracts when there is time for the lumber to come from California, but it does not do for the smaller trade which wants material for immediate use. The result of the present condition of the trade here is that redwood hardly figures as a factor in the lumber trade of this city, and can not come into general use among the carpenters and other small consumers.

Our correspondent also enquires as to whether the wood cannot come into competition with white pine for some uses. It is hard to tell what it might do if the price was 25 per cent. lower than it is, but at present it is no more a competitor of white pine than is black walnut. It is merely thought of as a special finishing wood. Some architects make use of the lumber; and a good many dimension shingles, both plain and fancy butts, are used for roofs and in place of siding on suburban cottages; but neither have any acknowledged standing. What is needed to introduce the wood is a supply in yard in this city sufficient for any current demand. A stock of 1,000,000 feet of lumber and plank with a few millions of shingles, the whole well assorted and held at as low prices as possible, would probably encourage a large consumer demand.

That the necessity of such a method is understood on the Pacific coast is shown by our correspondent, who says:—

"There has already been inaugurated a movement which, if carried to completion, will place an abundant supply at your door. Believing that arrangements should be made to control an abundant supply, that the same should be thoroughly seasoned to reduce the freight as much as possible, and that the lumber should pass through as few hands as possible, it is proposed to form a company, the stockholders to be only redwood lumber manufacturers. It is expected that the company will have to carry a stock of from 10,000,000 to 15,000,000 feet of our best and most valuable clear lumber, which will involve a capital of from \$250,000 to \$500,000. There has, as yet, been found no artificial dryer that will season redwood and turn it out in as good condition as when seasoned in the open air. Hence, should the company start in now, it would be four or six months before it would be ready to ship any lumber. We anticipate that such a company as this, which looks for a manufacturer's profit only, will be able to place our clear redwood in your market at about the price that clear pine is selling for there, and should your consumers give it a fair trial, we are confident they will find it equal to your best clear pine in all respects, and for many purposes, especially where its lasting qualities are tested, far superior."

Such a scheme, if carried out, should put a large stock of redwood in this market in time for next spring and summer's building. And

we believe that all that is necessary to make it a success is to thoroughly advertise, not the merits of redwood, but the fact that an ample supply is at hand for all which it.

Our correspondent also asks whether such an introduction of redwood would be kindly received by our dealers. It is difficult to see why there should be any antagonism to it. Redwood could only come in competition with white pine uppers, and they are firm in price and growing in value year by year. A few millions of redwood will be but a drop in the bucket of the lumber trade of Chicago, and could hardly influence the market in any way. —*Northwestern Lumberman*.

## THE WOODEN AGE.

This has been properly called the iron age, the age of steel, and the metal age generally, but from figures that go to show the enormous consumption of manufactured lumber, and the inevitable future impoverishment of the supply sources, the age may be more fitly termed the age of wood. Metal manufacturers, says the *Building Woods Journal*, there will always be as long as there is human strength to wrest the ore from the bowels of the earth, but it is a fact, made evident from careful computation, that each successive year so diminishes the extent of forests in this country and Canada that the time must come when the scarcity of timber, particularly pine, will so increase its market that it will be stricken from the list of economical building materials. This period may be farther in the future than has been predicted, but it is safe to say that in the next century a gradual revolution in building will be commenced by the enforced use of metals where wood has been used in construction. At the recent convention of American engineers, a paper was read containing very carefully compiled statistics, proving the necessity of more economy being used in the manufacture and use of lumber products. The author concluded that the supply of white pine in the United States, and probably in Canada, at the present rate of consumption, was almost certain to be exhausted by the end of the present century. Of yellow pine, spruce and hemlock, the forests of the South would yield a supply of 150 years, at the present rate of consumption. East of the Mississippi there is probably twenty-five years' supply of hard wood. The supply of walnut and ash is being rapidly exhausted. It may be that these theoretical limits may be greatly extended in reality, as the country is large and the possibilities of the growth of new timber very great, if immigration to this country and natural increase in population do not make such demand upon the forest territory that the next generation of timber will be insignificant in amount and value.

When the lumber supply is at an end so far as concerns building operations, entirely new features of architecture will be developed. Building will be erected that will stand as long as brick, stone and metal will endure, and the comparative cost being greater, a higher order of architectural talent will be encouraged to suit the universal demand for permanence and beauty. Then will truly begin the age of metal and architectural perfection.

## THE DULUTH TRADE.

There is a startling change taken place in the direction of Duluth's lumber trade. The manufacturers of that district have hitherto looked westward for their distributing field. They have mainly depended on the Northern Pacific railroad as an outlet, and, within two years past tried to squeeze a little of their surplus into Kansas and Nebraska. For a few years they had a bonanza in the Northern Pacific trade, which took everything which could be run out of a saw mill, without question as to quality or grade. But a change came upon the Duluth business after the boom of 1880-82 subsided. Customers became more fastidious, competition sharper, and the full flush of Duluth prosperity was overclouded with gloom. Manufacturers in that district for the past two years, until recently, complained bitterly of the limited demand and meager profits. But this season the demand has improved. It has come from all parts of the compass—west, southwest, from

Port Arthur, Chicago and the East. Now our correspondent from that point announces that the prospect is that hereafter a large proportion of the Duluth mill product will go to Buffalo and Tonawanda. The big coal barges from Buffalo offer to take lumber from Duluth to the lower end of Lake Erie at \$2 a thousand, only 50 cents more than from Saginaw or Bay City. At this rate lumber can be profitably shipped from Duluth to eastern markets, and thus the surplus at that point can be disposed of. There is also an increase of shipment from Duluth to this city. This new direction of Duluth lumber shows, as the *Lumberman* has before intimated, that the markets situated on the great lakes must absorb most of the lumber tributary to the lakes. Low lake freight rates determine the movements of lumber in the direction of the lake markets. It is also evident that the consumptive requirement east of Chicago is bound to be such as to constantly draw away and absorb the bulk of the lumber to be produced in the territory contiguous to the lakes. —*Northwestern Lumberman*.

## A SUCCESSFUL SAWYER.

1. Acquire sufficient knowledge of machinery to keep a mill in good repair.
2. See that both the machinery and saws are in good order.
3. It does not follow because one saw will work well that another will do the same on the same mandrel, or that even two saws will hang alike on the same mandrel: on the same principle that no two clocks can be made that tick alike, no two saws can be made that will run alike.
4. It is not well to file the teeth of circular saws from the same side of the saw, especially if each alternate tooth is bent for the set, but file one-half the teeth from each side of the saw, and of the teeth that are bent from you, so as to leave them on a slight bevel and the outer corner a little the longest.
5. Never file any saw too sharp or acute angles under the teeth, but no circular lines, as all saws are liable to crack from sharp corners.
6. Keep your saw round, so that each tooth will do its proportional part of the work, or, if a reciprocating saw, keep the cutting points jointed on a straight line.
7. The teeth of all saws wear narrowest at the extreme points, consequently they must be kept spread so that they will be widest at the very points of the teeth, otherwise saws will not work successfully.
8. Teeth of all saws should be kept as near a uniform shape and distance apart as possible, in order to keep a circular saw in balance and in condition for use. —*Michigan Manufacturer*.

## CROSS-TIES.

According to the report made by F.B. Hough, of the Department of Agriculture, on the "Durability of Cross-Tie Timbers," the cross-ties needed for railroad construction are a heavy draft upon our forests. In France and England the country does not raise sufficient timber to furnish ties, and they have to be imported abroad; and in Mexico and South America, notwithstanding the great forests, many ties were similarly imported. In this country, on the other hand, we are exporting them; but the time will soon come when the demand will meet the supply. It requires 17,000,000 acres or 26,500 square miles of forests to furnish the present demand of the railroads, and at the rate of progress in building new lines 30,000 square miles of forests will have to be set aside for this purpose within a decade.

The principal timbers employed for railroad purposes are the following, given in the order of their use. Oak, pine, chestnut, hemlock, cedar, tamarack, cypress, elm, ash, cherry, black walnut, fir, butternut, coffee nut, mulberry and mesquite.

The oak lasts seven and a half years as a cross-tie, and costs 41 cents per tie. Red oak, however, lasts only five years and black oak four and a half. Southern pine is good for six and a half years, and costs 37 cents, white pine has the same durability, but costs less, 31 cents.

Cedar shows the greatest average durability of twelve years, with a cost of 34 cents, but it

is to be soft to bear heavy freightage and is consequently not much used in railroad building.

California redwood is also very durable and lasts seven years, but this, it must be remembered, is in the dry climate of California, where all kinds of timber last well.

Cypress makes a good cross-tie, lasting nearly nine years where white and black ash rot in four years. Finally, all hewed woods are much more lasting than when sawed.

The present price paid for cross-ties in the United States—an average of 35 cents—is phenomenally low in comparison with other countries, and is due to the fact that so many of our railroads traverse well-wooded districts. It is inevitable that with the destruction of our forests their price will rise, and that our railroads of the future will find cross-ties among the most expensive articles of construction.

## HOW TO PREVENT FIRES.

The *Boston Globe* gives the following report of a debate at the Forestry Congress in which the Canadian delegates took part:—

Mr. William Little, of Montreal, who was endorsed very handsomely as a friend of the forests and a practical lumberman of Canada for many years, opened a discussion on the Rev. Mr. Eggleston's paper. He claimed that in the condition in which lumbermen leave forests the woods are naturally made the prey of fire. He asserted that lumbermen were largely and principally responsible for the destruction of the forests.

Commissioner Coleman asked what should be done to prevent leaving forests mere masses of kindling wood and to guard against forest fires.

Mr. Little thought that one remedy was to take out and utilize the entire tree when it is cut down, somewhat after the custom in France, where every portion of a tree is recognized as valuable timber.

Judge Ladd, of New York, asked as to the practicability of requiring the burning up of branches and limbs and debris on forest-cleared land in winter, so that fire might not spread.

Mr. Little said the scheme would not be practicable. The true idea was to secure a recognition of the value of tops and branches of trees.

Mr. Merriam, of New York, explained the advanced methods of some of the Adirondack lumbermen, who see the value of protection to their property, and take every possible precaution against forest fires. It is from the carelessness of tourists that damage to the Adirondack woods has been chiefly due of late years. The residents are aroused to the importance of preserving our forests. Mr. Merriam regretted that Boston should not have shown more interest in the great cause.

Mr. Little spoke of the interest felt in American forestry by the Hon. Mr. Lynch, Commissioner of Crown Lands for the Province of Quebec, a gentleman who would gladly have attended the congress, but had been kept away by unavoidable circumstances.

## A VALUABLE TREE ATTACKED.

The hachmatac trees of the whole Province of New Brunswick presents a half-dead appearance on account of the ravages of a grub or worm of the caterpillar species. It attacks the largest trees by preference, destroying the fresh verdure of the upper portions first and leaving that of the lower branches comparatively uninjured. It spares the very young trees, those about eight feet in height and under being untouched. The work of this pest was first discovered on the south side of the Miramichi in Blackville parish, but it has since been seen in different parts of New Brunswick, and Gloucester. A contemporary referring to the ravages of the same worm, says:—"For some time past an insect, which has been mistaken by many for the army worm, has been destroying the hachmatac trees of the province. All along the St. John river and the New Brunswick railroad their ravages are discernible." We understand the spruce trees have also been attacked by the same insect. —*Ex*