

SOMETHING ABOUT HARDWOODS.

THE LUMBERMAN has received numerous enquiries of late regarding the proper mode of manufacture, and the sizes in demand for hardwood lumber in the different markets. After careful research we have placed ourselves in a position to supply the information asked; and while the whole subject cannot be well covered in one article, we will content ourselves this month by dwelling briefly on the principal kinds of hard woods required for the Canadian and United States markets.

MAPLE—The size in demand for this class of wood in the Canadian market is principally one-inch stock, although sales can generally be effected for small quantities of 1½-inch, which is used principally for flooring purposes, but which rapidly being replaced by birch. In the United States market there is a good demand for 4, 3, 2½, 2, 1½, and 1 inch, planks and lumber. One inch especially calls for clear white stock. Thicker stock should always be manufactured from the largest and best logs, and good judgment exercised in proportioning other thicknesses. Maple from 2 inch thickness and up, should be 6 inches wide and up for Canadian, and 8 inches wide and up for United States market.

BIRCH—For the home market there is a demand for clear white, or one face clear white, 1 and 1½ inch principally. A good grade of mixed colors will generally find ready sale in Canada. Squares 4x4 and up is what is usually called for in the United States. The larger and better logs must be selected for squares, which must be perfect, no hearts or checks allowed. In the last-named market there is also a ready sale for 3 and 4 inch plank and 1½ inch boards. Great attention should be paid to color of Birch, which should be red or cherry color. Widths same as maple. In connection with this wood it is well to impress on the manufacturers the necessity of avoiding more than very medium stocks, as the market is inclined to be glutted with this particular wood.

BEECH—Demand very small. Used by a few firms only in the manufacture of tools, etc. The principal demand is for 1½ inch stock when dry, although other thicknesses are occasionally used.

ROCK ELM—Should be manufactured principally into 2, 3, and 4 inch stock, 8 inches up and wide, for U. S., and 6 inches and up wide for Canadian market. The home market frequently calls for 1½ inch in special widths, 9 inches and over for 12 feet lengths, and 6 inches and over for 14 and 16 feet lengths. Great care to be taken in piling and stripping.

SOFT ELM—Thicknesses in constant demand 1 and 2 inch, with a preference for the former. Should be 6 inches and up wide for Canadian and 8 inches and up for American market. After cutting Soft Elm care should be taken to stock it down for a few weeks, and stick it up in one length as near as possible, which will greatly improve lumber and make it more saleable.

BASSWOOD—No one need be apprehensive of cutting too much Basswood. While there is a danger of overstocking in other classes of hard woods, Basswood, if properly manufactured, will find a ready sale, both in the Canadian and United States market. This class of lumber should be cut in winter while sap is in the log. If this is done stock will be white, and will bring at least \$2 per M more than logs cut in the spring, which are inclined to be discolored. The most saleable thicknesses are 1 and 1½ inch, the demand being much greater for the former. The widths for the Canadian and U.S. markets should be 6 inches and up. There is a constant demand for good white Basswood in the U. S., and a ready sale for common and cull Basswood in this country.

CHERRY—This very desirable class of wood is very scarce in this country, and consequently if grade is good will bring a good price. It should be manufactured into mixed thicknesses from 1 to 4 inches, and 4x4 squares and up, both for Canadian and United States markets.

HEMLOCK—There is great amount of Hemlock used, and too much cut into unsaleable sizes. Scantling and joisting is about all that is called for in this kind of wood. The sizes usually in demand for scantling is

2x4x10, the lengths especially in demand being 12, 14 and 16 feet, with as many 12 and 14 feet lengths as possible. Joisting should be cut into 2x6 and 8x6, 12 inches wide, and from 12 to 22 feet long. In a stock of say 500,000 about one-fifth should be 18 to 22 feet, with a small percentage of 24 to 26 feet lengths. Long lengths refer principally to 10 and 12 inch. Balance of stock to be cut into shorter lengths. Avoid manufacture of more than say 20 per cent. of total cut in 2x6, 2x8, 2x10, and 2x12 in 12 feet lengths. In cutting 10 feet logs to produce 2x4x10, always avoid the production of unsaleable sizes. 2x2 inch stock may often be ripped off, and will be found a saleable size for narrow partition work, bridging, etc. An important feature concerning Hemlock is in having it duly seasoned before shipping, as it effects a great saving in freight.

CEDAR—Demand very small. The market principally calls for 4x4, 4x6 and 4x8 inch, but it is not advisable to cut these sizes on speculation, but on order only, unless it be into 4x4 inch. There is usually a considerable call for good sound cedar 6x6 and 8x8 for turning purposes.

WHITE ASH—Should be cut to 3 and 4 inch stock. There is always a fair demand for good stock, at exceptionally good prices.

SYCAMORE—Should all be quarter-sawed.

OAK—White Oak, of good quality, will bring from \$30 to \$32 per M; and Red Oak from \$24 to \$26 per M. It is advisable to cut only the best class of logs obtainable in these woods.

While piling all kinds of hard woods great care should be taken in stripping lumber and trimming to proper lengths. Thickness should invariably be uniform throughout and plump. If cutting inch lumber be careful to leave about one-eighth inch for shrinkage and a proportionate amount for other thicknesses. To secure perfect lumber logs should be cut within a reasonable time, as they are liable to become dozey at ends after standing any length of time. A good idea is to paint the ends of all hard wood logs to prevent sun checks, moisture, etc.

Cherry rejects and culls, also Basswood culls, can easily be disposed of at fair prices; but it is more difficult to dispose of culls of other woods, the freight charges being too high to warrant their shipment. To avoid too many culls the best safe-guard is to buy only the best quality of logs, and not be over-anxious to manufacture too largely. The secret of avoiding culls is to manufacture only the higher grades of lumber.

In future articles on this subject other questions will be touched upon which it is hoped will be of benefit both to the manufacturer and dealer in all classes of hard woods. A hardwood inspection is now being prepared and will be submitted in the next regular issue of this journal.

HAMMERING SAWS.

In hammering saws there are two distinct principles on which the saw should be treated. These consist of tension hammering and straightening. To those who are not well versed in the adjustment of saws, I will explain both the treatments and the effect throughout the life of a saw.

Many saw hammerers know so little about adjusting the tension of a saw that they are not aware of any other system than to hammer the saw always, in all conditions on the anvil, instead of using pad and copper or rawhide hammers. The result with saw on anvil is that it is stretched at every blow. There is a little rebound in the case of a lump, but it is never brought straight without distorting the tension. The saw in this manner is stretched when it only wanted straightening.

I recently had a saw shipped me to repair which had been repaired in New Orleans, and returned to party in worse condition than before. It had been hammered as described, and had been dealt such heavy blows that the steel in the plate was fractured at every blow, in some places almost penetrating the saw. I would hardly rank this party with the so-called saw hammerers; will refer to the man of some judgment and experience. He hammers the average way, regardless of the condition of the tension. If saws have several high places near centre, when he gets them down he

then has to hammer the saw on the rim, as it is too open. I would ask why he did not use the cushion? Then when high places were brought level, the saw would not have been too open. But, says a critic, the saw was sprung and had to be hammered back in order to prevent these lumps from appearing or coming back so easily. Right here is what brings them back. The steel is stretched more here than anywhere else by the hammer, and is weak or open, and the first little mishap to the saw these lumps are out again more prominent than ever. Why? Because the steel was opened at that place by the hammering, and the least heat caused it to set out again. The more hammering, the worse the saw, and finally it has to be thrown aside and a new one put in its place.

So many men place themselves in the position of a first-class saw hammerer. They can hammer a saw once or twice, but take a high-speeded fast-feed saw, and it will soon show whether a man is master of the profession. A saw should run as well the last day it is run as the first where a man is employed to keep the saw up. The same is applicable with almost any machine, and because it is not new, looks old, &c., it is not to be considered so, as many do, but it should perform its work, day in and day out the same. This can only be done by watching the machine and keeping it in thorough order, making all necessary repairs before they make several others or possibly wreck the machine; little details are to be looked after. Small things, hardly worth noticing, soon grow larger, resulting in the destruction of property.

Saws have to be watched closely, and in fact have to be hammered often so as to always run the same. The best mills in the country hammer their saws nearly every time they are changed, and with such saws a man must be thoroughly competent. He must first equalize the tension by removing all tight and loose places, and he will have less lumps and twists to trouble him, besides the saw will stand heavier feed. When the saw wants adjusting to speed, the hammering must be on the anvil, blows light of the same force equal distances apart from rim to centre and on the circumference. When the tension is attained it will be found that there is but little unequal tension, as the work was done systematically and correct. This saw is always kept the same, accomplishing good work with but little hammering. Each time it is taken off it should be examined, and any little lump should be straightened back with the pad and soft hammer, and where a lump is suspected of coming back it should be marked, and if found so is a distortion of tension and must be removed. Space here will not allow an explanation of this.

On the other hand we will take a saw for a high speed and feed, hammered the ordinary way. All goes well until the saw appears with lumps. They are hammered as described, and the saw is soon full of tight and loose places, which can be put up with in lower capacity and speed, but the severe strain of fast saws will not allow this distortion, and the first-class hammerer as he thought he was can find out in his conceit that there is still something for him to learn. In nearly all mills can be seen good saws laid aside for the want of proper repairs, which have probably been hammered by every saw hammerer that comes along, and the mill owner is finally forced to believe there is no improvement in hammering a saw; so he goes ahead with his old saw, trying in vain to overcome its peculiar antics.

At a meeting of the dealers in spruce held Dec. 7, in the Assembly Rooms, Buffalo, N.Y., the following schedule of prices to govern the sale of spruce timber was agreed upon: All timber 9 inches and under, 23 feet or less long, not less than \$20 per M feet. All timber 9 inches and under 24 feet and up long, not less than \$22 per M feet. All timber 10 inches and up wide all lengths, and all square timber, not less than \$22 per M feet. These prices go into effect on all sales and contracts made after December 20, and to continue until June 1, 1890, unless otherwise agreed at a called meeting at which not less than a majority of those present at the meeting now held shall be present. All timber sold for shipping purposes to be exempt from above restrictions.