

AN IMPORTANT AWARD.

THE accompanying cut is a good illustration of the "Andrews" Lumber Dryer, which was last month awarded the Gold Medal at the World's Columbian Exposition in Chicago.

The gentlemen appointed to investigate the different systems now before the public for the drying of lumber and other wood goods, reported as follows:

"The Andrews Lumber Dryer is adjudged worthy of award for the following points of excellence:

(1) For its fire-proof qualities, the sides being brass, primarily serving as condensing surfaces, and the roof being covered with gravel.

(2) For a progressive system of heating, secured by a graduated arrangement of pipes beneath the lumber.

(3) For even circulation of heat upward through the lumber and downward through the hollow walls, thus coming in contact with the brass exterior covering, acting as condensing sheets, the heat thus being nearly even at the top and bottom of kiln with a positive circulation without the aid of blowers or chimneys.

(4) For controlling the condensation so that the moisture appears on the surface until it is entirely expelled from the lumber, the drying being from centre outward.

(5) Economy of heat by means of using the same air continuously with little loss."

The following gentlemen composed the Departmental Committee on awards:

S. Suwa, Secretary Imperial Japanese Commission.
Baron de Marajo, commissioner from Brazil.

G. Neiderlien, scientist and commissioner from Argentine Republic.

Dr. E. Hessler, botanist and commissioner from Paraguay.

Prof. A. Runnebaum, University of Eberswalde, Germany.

Prof. G. Selligren, University of Stockholm, Sweden.

Prof. A. Grelinitzky, University of St. Petersburg, Russia.

Robert Hudson, commissioner from New South Wales, Australia.

Hon. B. L. Butcher, West Virginia, U.S.

G. A. Priest, Census Bureau, Washington, D.C.

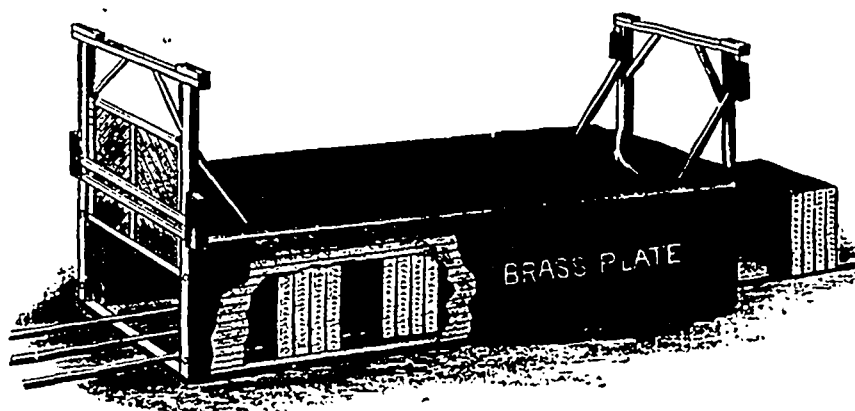
Hon. R. C. Joiner, Wisconsin.

M. Fenlon, Kansas.

Dr. B. E. Fernow, Chief Forestry Department, Washington.

O. S. Whitmore, Forest Botanist, Chicago.

Phro Suriya, Siam.



"ANDREWS" LUMBER DRYER.

This kiln, of which there are now nearly five hundred in use in the United States and Canada, is controlled in this country by the Dominion Dry Kiln Co., of Toronto, who will cheerfully furnish full particulars as to its workings to anyone making application for same.

THE GANG EDGER.

ONCE obtain intelligent control of the main machines in a mill and it may be said that half the battle of mechanical management is mastered. The gang edger, in the judgment of Mr. J. H. Miner, who usually writes with a clear comprehension of mechanical matters, is one of the most important machines of a sawmill. It is, he tells us in an article in the Southern Lumberman, one-half the capacity of a mill when it is a good machine and run as it ought to be. It is too often classed as secondary and has attention only when necessity compels it. Edgers have been much improved lately, yet it is a difficult matter for a man to get just what he wants. Some manufacturers have discarded valuable features simply that they proved a detriment in the hands of an operator.

Take adjustable boxes for the rollers. This is certainly a valuable feature, but as a prominent manufacturer remarked to me, "the first time that the saws got dull, sprung and running crooked, the rollers would be adjusted, throwing the machine out," which is true. Such a machine should not be in the hands of any but a skilled saw-mill foreman. For a time all will work well with solid boxes cast into the frame, but the "punching" of the lumber against the front roller and the pull of the driving-belt wear the two shafts so that they come closer together, and there is no bearings of this class that do not wear. The front idler roller is now discarded by many, and if rightly conducted I think they are an advantage. The principal drawback seems to be the obscuring of the saws, by

which, with the malleable frames a better view could be had, and with sectional idler rolls do 10 per cent. more and better work. Only when the saws are in nice trim does the edgerman have no "chasing" to do until the back rollers take the lumber. Guides are a nuisance on edgers. The shaft becomes dry and the force necessary to shift the saw wears the pins very fast. Soon a one-fourth inch play can be found, and unless they are taken up frequently much lumber is badly edged. I have no objection to good yoke shifters with a taper groove, so that every few months the yokes can be set up to accommodate the wear. Guides often heat the saws. There can be but little throat had to allow the saws to close up to within three inches. Knots, splinter—and in cypress mills, bark—give much trouble. An eight gauge for an eighteen inch saw and seven gauge for a twenty inch saw will do better work without a guide if they are kept in anything like shape. A dull saw pulling against a guide pin only makes matters worse.

I have never seen an edger with as large a pulley as I would want, and I can safely say that the edger costs more in many mills for belting than the remainder of the mill.

In some cases the belts are taken care of, and in one mill I knew a belt to run for several years. How many mills do we see with the edger belt entirely protected from dust and grease? and how many running a good endless belt with a reliable take-up? And yet they can

be had from every flour-mill or extensive sawmill builder. Rickety tighteners are an abomination. In some mills it requires a monkey-wrench performance in the starting and stopping of the engines, the belt tending away over to one side, running the edge if not arrested. In this particular case the pulley was twenty by twelve inches face, and flat at that. That pulley has worn out \$500 worth of belting, and I venture to say (if the firm hasn't suspended) that it is yet in use. With large crown pulleys and endless belts there is no occasion for such enormous expense.

The majority of edgers now in use cannot take over a 2-inch piece without a delay and the smoke flying from saws or belt. I have run on the light "St. Louis gang edger," 6-inch stitches making 6 x 6 and 6 x 8, and there are very few of the \$1,000 edgers that will do this.

The secret was in a variable feed. That is, I arranged a brake shoe by which I could regulate the feed as desired by friction. Four-inch stuff was as nicely run on that little edger as were 1-inch boards. No one could think of shifting belts, or having a trap of cones, but, with a feed similar to that of a good planing machine, an edger will do from 10 to 25 per cent. more work, which is a clear gain for the mill.

If an edger is kept in order, studding would not need sizing only for very fine work. Take the ordinary practice and 4-inch stuff ranges very nearly from 3 1/4 inches to 4 1/4 in width, and in extreme cases worse than this. The fence of many edgers are too far back from the saw. They should be right up to the first saw, and should it have much lead, by "monkeying" with it the end of the board will not fly around, making a nice little crook. A good edger will help to make or keep a good man. He will have time to make his calculations to the best economy and can "shoot" with certainty. A good workman appreciates a good machine, and naturally has the inclination and pride to do good work with it.

VIEWS AND INTERVIEWS.

Beechwood. Beechwood is neglected, especially for use in parquet floors, for which it is particularly suited. In Germany

some decorators prefer it to oak for such uses. Mention is made in a recent German article of several oak floors laid some years later than others of beech, which show much greater signs of wear, the oak being much deteriorated, while the beech put down twenty years ago is still sound and the fibre as firm and fresh as if it had been laid but a few years. It is necessary to select the close-grained, narrow-ringed wood grown, so as to secure freedom from sap and to obtain a tough, compact fibre if the best results are to be attained. Though employed at times without comprehensive steaming, the wood is greatly improved by this process, as it tears open the walls of the cells and liberates the sap, and it is generally considered advisable to carry out this treatment as speedily as possible after the timber is felled.

Tree of the Forbidden Fruit.

What was the tree that contained the forbidden fruit, so fatal to the happiness of our first parents? To those

who enjoy mental recreation of this kind the theme has always proven one of supreme interest. General (Chinese) Gordon is authority for the statement that the forbidden fruit was a cocoanut; the fruit of a palm tree called coco de mer, the botanical name of which is

Lodicea Seychellarum. He made numerous sketches of it during his extensive travels, and has left the most authentic description of it we have, and it was through his writings that public sentiment was called to this singular palm tree. After years of efforts and experiments, the gardeners and botanists have succeeded in finally establishing it in the royal gardens of England. Whether the tree ever grew in the Garden of Eden or not is a matter of speculation of little interest to science or botany. Its present home is on the Seychelle islands, lying to the Northeast of Madagascar, a very considerable distance from the reputed location of the Garden of Eden. The

fruit is a double cocoanut, about fourteen inches in length and weighs, on an average, about forty pounds. The Malay and Chinese sailors said it grew on a tree at the bottom of the sea, hence the name, coco de mer. The tree itself has been known to the civilized world only about 150 years.

Unwise Economy.

Just now every one is talking about hard times. Things are panicky, trade is depressed, and no one is sure

what disaster is ahead of them. One writer, more optimistic, doubtless, than some others, says: "When we get down to the bottom of things, no panic, no depression of a paralyzing character, can be found. And this is usually the case. People eat about as much, clothe about as well, live in about the usual style, in one year as another. The farmer at the base of industry works as hard and produces as much, and those that manufacture for him and others, and those ranged between the farmer and manufacturer, engage in distribution and professional and personal services, must also be kept right on at work in their several places. Sometimes a period of extravagance intervenes, when people get to buying more than their labor justifies them in consuming, and then dealers lay in large stock and manufacturers gauge production to a demand that cannot last. Such a time we have just passed, and now comes a reaction. But there can be no loss to the material welfare of any considerable fraction of the working body or of the country. People may be led to the other extreme of undue economy, and then business becomes restricted, but the purchasing power of the people as a whole has not been diminished. Its exercise may be deferred to in some degree, but it will not be lost, and hence it is that every period of reaction and depression carries with it the certainty of extremely good times to follow. And so it is of the present case."