

FOREST TREES CUT FOR BARRELS.

MILL FOR CUTTING LOGS INTO BARREL STAVES.

THE USEFUL BARREL.

Wood for Making It Growing Scarcer and Scarcer.

[From The Tribune Bureau.]

Washington, Oct. 5.—One of the commonest articles in everyday use is the barrel. To the average man a barrel is simply a barrel, and he seldom thinks of the important part it plays in many American industries. He never stops to think how seriously trade would be handicapped if the barrel supply were suddenly to give out, or if some individual or corporation succeeded in cornering the barrel market. Neither of these things is likely, but a moment's thought on either will serve to convince one that the homely barrel is a more important factor in industry than it is popularly thought to be.

This is particularly true of the "slack" barrel. In the cooperage trade barrels are commonly classified as "tight" and "slack." The slack barrel is used to hold commodities which are not liquid, such as lime, salt, cement, flour, sugar, fruit, vegetables and a great many other articles. In many respects the slack barrel is an ideal container for such material. It is strong, durable and easily handled. The articles which it contains are thoroughly protected, and after being once used the barrel may be again used and reused for many different purposes, and, after having served its time as container, it has a final value as firewood.

The ordinary slack barrel consists of some sixteen or seventeen staves, two heads of three pieces each, and half a dozen hoops. No complete statistics are available upon the amount of timber annually used in the manufacture of slack cooperage, but reports indicate that last year there were produced over a billion staves, over two hundred million sets of heading and more than three hundred million hoops. Many wire hoops are also used. It is probably safe to say that, altogether, more than eight hundred million board feet of timber are used annually in the manufacture of slack barrels in the United States, and that if the barrels which are made in a single year were stood on end, side by side, they would cover an area of over eighty thousand acres.

Because of its great strength and toughness elm has long been the principal wood used for staves for high class barrels and for hoops, and it will be the favorite until the supply is exhausted. There has been a great increase in the use of gum wood for staves within the last few years. Basswood has always been the preferred wood for heading because of its soft, even grain, but it, too, is being gradually replaced by gum.

The production of elm lumber in the United States has decreased over 50 per cent in the last seven years. Elm is cut most largely in the Northern states, and particularly in Wisconsin, Indiana and Michigan, and the exhaustion of the supply in those states has had a most serious effect upon the slack cooperage industry.

One of the prominent manufacturers estimates that there are not half the staves made in

Michigan now that there were ten years ago. Saginaw, which used to be the principal home of the industry, is now producing stock only in a small way, and, as a matter of fact, most of the cooperage stock made in Michigan now comes from the Northern Peninsula, instead of from the Southern Peninsula, as was formerly the case. It is the opinion of one of the best informed and most prominent manufacturers in Ohio that to-day there are not 1,000 staves produced in that state, where there were 10,000 staves made ten years ago.

Red gum grows most abundantly in Arkansas, Missouri, Mississippi and Tennessee, and with the increased use of this and other southern woods in the manufacture of slack cooperage, the industry is shifting southward at a rapid rate. It is said that there are now a score of

finally emerges in the manufactured form, and that, with heading, perhaps no more than 25 per cent of the actual volume of the log finally goes into barrel heads.

Much of this lack of utilization cannot be prevented, yet there are possibilities of greater economy than is commonly practised.

It is equally important to utilize the waste which unavoidably occurs. Every part of a tree may serve some useful purpose, and officers of the forest service say that the time when it will do so is rapidly approaching. Manufacturers of slack cooperage stock are confronted by the same problems, which are now meeting almost every user of wood in the United States, an increasing scarcity and a correspondingly higher price. The farm wood lot has frequently furnished timber for the maker of hoops and



BRONZE STATUE OF THE GOD PAN PRESENTED TO COLUMBIA UNIVERSITY BY THE WIFE OF BISHOP POTTER AND HER SON. Cast by the Henry-Bonnard Bronze Company. Sculptor, George Grey Barnard.

first class plants, making staves and heading in Louisiana, where there was only one of any large capacity ten years ago. It will be only a few years, however, until the maximum output of these states will be reached, and there, too, the manufacturers will be compelled by the scarcity of material to hunt vigorously for a supply of timber.

So far, forest utilization in the United States has been of the most wasteful kind, and only a relatively small percentage of the actual wood content of trees has finally reached the consumer in the form of some useful article, whether that be board or stave or shingle. Studies made by the forest service of the Department of Agriculture indicate that in the manufacture of staves and hoops only 50 to 60 per cent of the contents of the log which goes to the mill

staves and heading, and it is the opinion of some who are best informed upon conditions in the slack cooperage industry that if properly managed these wood lots could be made the source of supply for a large proportion of the timber required for barrels.

CORRECTED.

A commercial traveller who makes frequent trips to the West from New York is on friendly terms with the porter of the sleeping car, who rejoices in the name of Lawrence Lee.

"Well, Lawrence," announced the salesman, gleefully, "I have good news for you. We've had a birth in our family—twins, by George."

"Dat am no birth, sir," said Lawrence; "dat's a section."—Life.

PAN FOR COLUMBIA.

Bronze Statue To Be Set Up on University Grounds.

At last the large bronze figure of Pan which was designed by George Grey Barnard, an American sculptor, is to find a resting place. It has had an agitated career since it was cast nine or ten years ago. After having been hidden from public gaze for the better part of the nine years it is now to repose in a grove on the grounds of Columbia University.

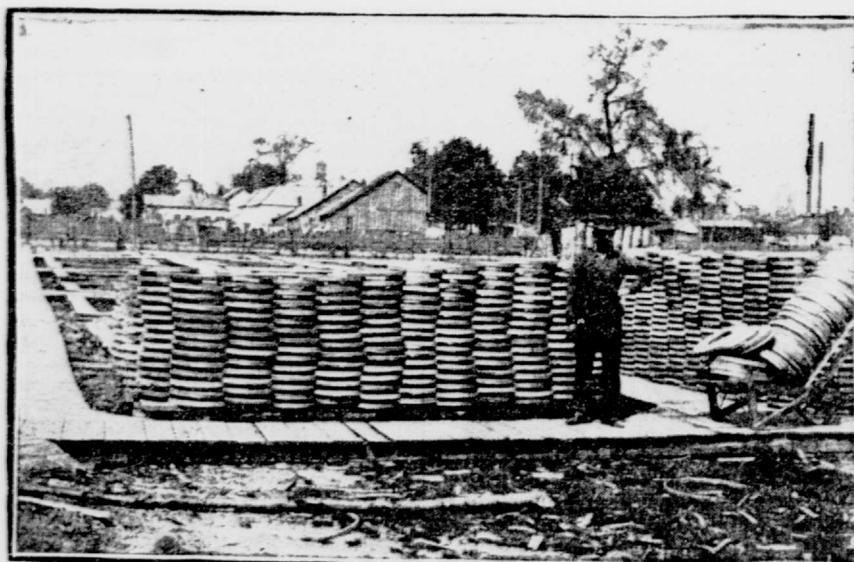
The origin of this giant sportive figure was an order for a fountain to be placed in the courtyard of the Dakota apartment house, given by the late Alfred Corning Clark to Mr. Barnard. When Mr. Clark saw the design he decided that it was too fine a thing to be hidden in a courtyard of an apartment house, and he planned to give it to Central Park. Before it was cast, however, he died, but the executors of his estate carried out the idea. The commission that watches over the public art of New York City decided that it was artistic enough to be worthy of acceptance by the city, but officials in charge of the park were unable to accede to the desires of the sculptor and the representatives of the estate as to the spot where it should be set up. Therefore, it was presented to Columbia.

The statue, which is said to be one of the largest ever cast in a single piece, represents the pagan god lying on a grassy knoll enjoying himself with his reed pipe. Instead of the conventional hairy nether limbs, the goat's legs are only suggested, this being accomplished by means of cloven hoofs. The statue weighs about three tons, and is 11 feet 4 inches long and 5 feet 3 inches wide. If the figure of Pan should suddenly rise from his bronze grass couch it would be found that he was 13 feet 6 inches tall—a figure startling enough to drive the herds into a panic.

It was cast in the fall of 1898 at the Henry-Bonnard Bronze Company's foundry. A corps of workmen was engaged for eight months in preparing the mould. This was comprised of 1,700 pieces, and while the casting was in it weighed 54,650 pounds. It is said that when the master workman saw that the casting was a success he fainted from the reaction of the strain.

The statue, which now rests at Mount Vernon, N. Y., on the lawn of the firm that cast it, will be placed at Columbia University soon upon a large marble exedra, surrounded by a granite tile pavement and a granite seat. The figure will be in the centre of a fountain, and the whole will have a high hedge of Japanese trees as a background.

The gift to Columbia was made by Mrs. Henry C. Potter, wife of Bishop Potter, formerly the widow of Alfred Corning Clark, and by her son, E. Severin Clark. The statue has two prizes to its credit, a gold medal obtained at the Paris exposition and the grand prize secured at the St. Louis exposition.



BARREL HOOPS PILED UP FOR SEASONING.



WASTED WOOD AT A BARREL STAVE SAWMILL.