

# CURLY Pine

Southern pine, with all of its desirable features, is not famous as a "figured" or unusually showy wood; but occasionally a board with spectacular wavy or erratic grain shows up in the lumber produced by one of the large mills. Often a small standing reward goes to the man who first spots such a board as the lumber moves across the sorting table. One mill, by offering a quart of milk for each curly board found, has built up a small stockpile of special lumber over a period of years through the process of supplementing a good many dinner-pail lunches. Probably there are similar special stockpiles at many of the older established mills. Mill officials may have offices paneled in "curly pine" and the unique wood sometimes finds its way into other special uses. But on the whole, curly Southern pine is not a standard item in the average retail lumber yard.

We know very little about the cause or relative occurrence of curly pine. The figure in the wood is produced by abnormal growth of the tree, but whether this unnatural or irregular growth is caused by injury to the tree by insects, bird pecks, or mechanical damage, or whether it is an inherited characteristic peculiar to the tree itself has not been proven in pine. Many hardwoods have figured wood, and there is reason to believe that in some cases the figure in the wood can be induced by wounding or otherwise affecting the growing tree. In other instances it has been shown that the unusual grain is a feature which is passed down from one generation to another through the seed; in other words there are trees which have figured wood and trees grown from their seed will produce figured lumber. Some research has been done in Europe and in this country in an effort to learn more about the occurrence of figured wood and how to produce it. Practically all of this research has been concerned with the figure in hardwoods, particularly such species as birch, maple, sweet gum, cherry, and cottonwood or poplar.

This much is known about curly Southern yellow pine: It occurs infrequently; the percentage of curly wood in mill-run lumber is very small. Only part of the lumber produced from a tree having curly wood will show the unusual pattern; the rest of the lumber

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from the same tree will be typical pine lumber. To the author's knowledge, curly pine is found only in old-growth or mature timber. It is not usually found in small trees or small logs; hence the small ground mills very seldom produce any curly boards. Curly wood in pine often has small pockets or flecks in the wood which contain bark or resin or both. When this particular defect occurs, it is difficult to finish the lumber satisfactorily for a table top or any uniform smooth surface, but this does not affect its use for paneling and decorative effects.

Trees which can yield curly pine lumber are not generally sought out in the woods because of the scarcity and

limited market demand for the wood. However, K. B. Trousdel of the Southeastern Forest Experiment Station, while inventorying and marking a stand on the Bigwoods Experimental Forest,<sup>1</sup> came upon a shortleaf pine which looked as if it might contain figured lumber. He marked the tree, noted its location, and arranged to have it sawed separately to see whether or not it did produce curly pine lumber.

The tree (Fig. 1) had a diameter of 22 inches at a point 4½ feet above the ground. Its total height was in the neighborhood of 100 feet, with about 60 feet clear of limbs. A count of rings on the stump showed that the tree was over 180 years old. The lower trunk (Fig. 2) was decidedly bumpy and irregular, although no outward sign of injuries, woodpecker attacks, or insect damage could be seen. It was this irregular appearance that suggested the possibility of curly grain in the wood. When the tree was felled, it was bucked into two 16-foot logs, one 14-foot log, and a 12-foot top log. The butt log (Fig. 3) was 19 inches in diameter at the small end. Bark removed in the skidding operation revealed that the irregularity in the trunk was not due to uneven bark thickness but to irregular bumps on the surface of the wood. The end of the log showed dark blotches of pitch or included bark in the outer layers of wood. The upper logs particularly the top log, were not as irregular as the lower logs.

The logs were taken into the mill of Camp Manufacturing Company, Inc., in Franklin, Virginia, and were kept separate on the yard until they could be sawed without the lumber becoming mixed with that from other logs. One morning the head saw was stopped until all boards had cleared the resaws and trimmer saws at the end of the mill, and the four logs from the shortleaf pine were packed on the deck, fed into the mill, and cut into one-inch boards on the head saw and resaws. It was soon apparent that some curly lumber was being cut, especially from the outside of the larger logs. Lumber which showed no distinctive figure was also produced. After the lumber came from the dry kiln an experienced grader



FIGURE 1.—A 180-year-old shortleaf pine 22 inches in diameter, showing irregularities on bole.

<sup>1</sup>Maintained by the Southeastern Forest Experiment Station in cooperation with the Union Bag-Camp Paper Corporation, Franklin, Virginia.

