June 14, 1938. H. E. McKENZIE 2,120,368

PROCESS OF DRYING WOOD BLOCKS

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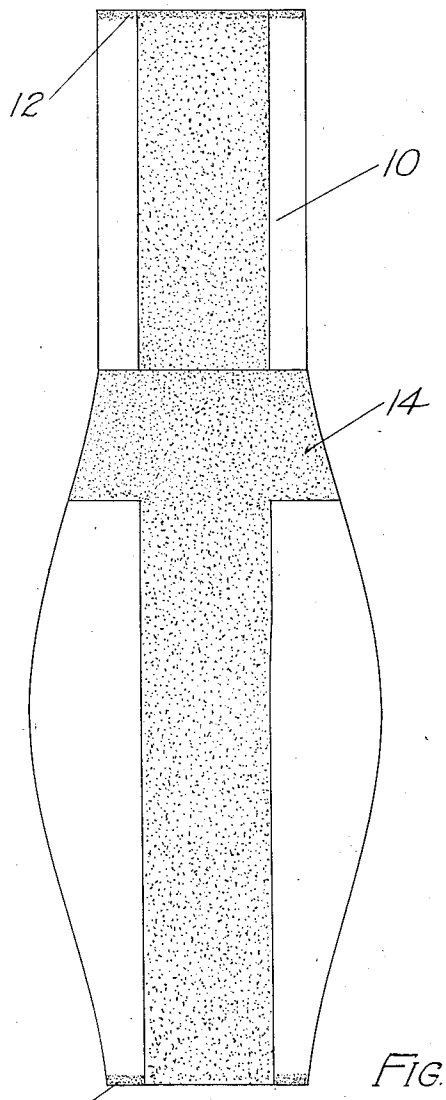


FIG. 1.

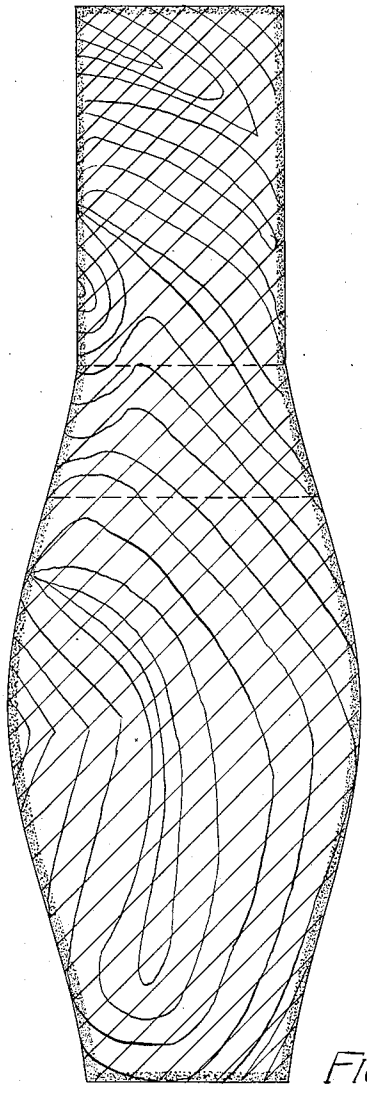


FIG. 2.

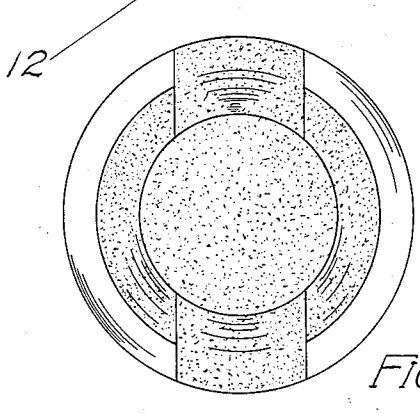


FIG. 3.

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PROCESS OF DRYING WOOD BLOCKS

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4 Claims. (Cl. 34—24)

This invention relates to an improved method of drying or seasoning wood, particularly wood blocks, and has for one of its principal objects the provision of a new and improved method of so preparing green wood for subsequent operations thereon.

One of the important objects of this invention is to provide a method of drying or seasoning wood, particularly wood in the form of blocks or strips of fairly representative dimensions whereby the same can be more quickly and economically dried and seasoned without the danger of checking or splitting.

A further object of the invention is to provide means for preparing wooden blocks or the like for a rapid yet satisfactory and efficient kiln drying whereby the moisture can be practically removed from the same while at the same time there will be no danger of checking or splitting, this to be accomplished by retardation of drying in dangerous directions.

Other and further important objects of the invention will be apparent from the disclosures in the accompanying drawing and following specification.

The invention, in a preferred form, is illustrated in the drawing and hereinafter more fully described.

In the drawing—

Figure 1 is a side elevation of a wooden block or the like which has been prepared for drying in accordance with the improved process of this invention;

Figure 2 is a vertical section of the block showing the protective media applied thereto;

Figure 3 is an end view of the block.

As shown in the drawing—

The reference numeral 10 indicates generally a wooden block or the like, which may be of any suitable or desired shape or dimensions exceeding two or three inches, and which in this particular instance is shown as applied to a block from which bowling pins are made. However it will be understood that the invention may be equally as well applied to other objects in the same manner and with equally as good results.

The reference numerals 12 indicate generally the application of a coating of paint or some other suitable material, such as a resin compound, either natural or synthetic, to the ends of the block, and it will be stated at this point that this particular idea has been previously applied in this industry, namely: the coating of the ends of blocks of wood or the like preliminary to drying in order to prevent undue checking or splitting.

The reference numeral 14, however, indicates a further application of this coating, which so far as I can determine is new in the art and which consists of the application of the aforesaid coating to other portions of a block which are to be protected from undue or excess drying in the kiln.

The coating of resin paint or the like is applied to the blocks shortly after they have been cut from the green wood, and only after the same have been sufficiently dried at a temperature of about 65 or 70 degrees Fahrenheit so as to assure the proper adhering of the resinous coating of paint to the surface of the block itself.

The coating is applied in a particular manner, namely: to the bark and heart side of the block, as indicated in the drawing, the other portions being left uncoated. It has been found that this coating prevents undue evaporation of the interior moisture through these bark and heart faces or surface and accordingly reduces interior stresses and strains which ordinarily will occur. In other words, the application of this protective coating to the bark and heart side of the blocks directs the drying to the surfaces where checking or splitting will not take place; to radial or rift grain surfaces.

It will be noted that some of the coating is applied to any unprotected ends of the grain such as occur in this particular block at portions which will eventually be the neck of the final bowling pin, thereby acting to prevent undesirable splitting or checking at these points.

However the most important feature of the invention is, as aforesaid, the application of the protective coating to the heart and bark sides of the block. As is well known, the heart and bark sides of a block are, respectively, those tangential faces of a block of wood which is cut from a quarter-sawed log, one face being that originally adjacent to the heart of the log and the other respectively designated face obviously being that adjacent to the outer face or bark of the log. The other two sides of the block, which are substantially at right angles to the tangential faces or surfaces, may, for convenience, be designated as radial surfaces.

After the coating has been applied, the block can be placed in a kiln and the temperature gradually raised to 80 or 85 degrees Fahrenheit, at the same time, of course, maintaining the proper relative humidity in the air which is being circulated around the blocks in the kiln. From

this point the temperature can be then gradually raised on up to 175 degrees Fahrenheit, maintaining, of course, sufficient relative humidity; and it has been found that by so preliminarily coating the blocks, the same can be completely cured or dried in one-half or one-quarter of the time which has heretofore ordinarily been considered absolutely essential for proper seasoning. At the same time, checking or splitting will be positively reduced and a substantially complete elimination of moisture will take place.

I am aware that many changes may be made and numerous details in the process varied throughout a wide range, without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon otherwise than as necessitated by the prior art.

I claim as my invention—

1. A method of protecting wood blocks while drying, consisting in coating the ends and the exposed heart and bark faces with a protective covering.

2. A method of seasoning wood blocks, consisting in coating the ends and the exposed heart and bark faces with a resinous paint and subsequently drying the same.

3. A method of protecting wood while drying, consisting in coating the exposed heart and bark faces and any diagonally cut surfaces with a protective covering of a resinous paint and subsequently drying the same in air of controlled humidity, temperature and flow.

4. A method of protecting wood blocks while drying, consisting in coating the ends and the exposed heart and bark faces with a protective covering of a resinous paint and subsequently drying the same in air of controlled humidity and required temperatures.

H. E. McKENZIE.