

[54] **PLANAR WOODEN BODY ADAPTED TO SHRINK ABOUT ITS CIRCUMFERENCE**

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[52] **U.S. Cl.**..... **161/56**, 52/313, 52/613, 52/614, 52/753 J, 144/309 A, 144/315 A, 156/63, 156/304, 161/36, 161/37, 161/270, D6/146

[51] **Int. Cl.**..... **B32b 5/12**, B32b 21/13, B27m 3/18

[58] **Field of Search** D6/146; 156/304, 63, 256; 52/613, 614, 313, 753 R, 753 J; 161/270, 36, 37, 56; 144/309 A, 314, 315

[56] **References Cited**

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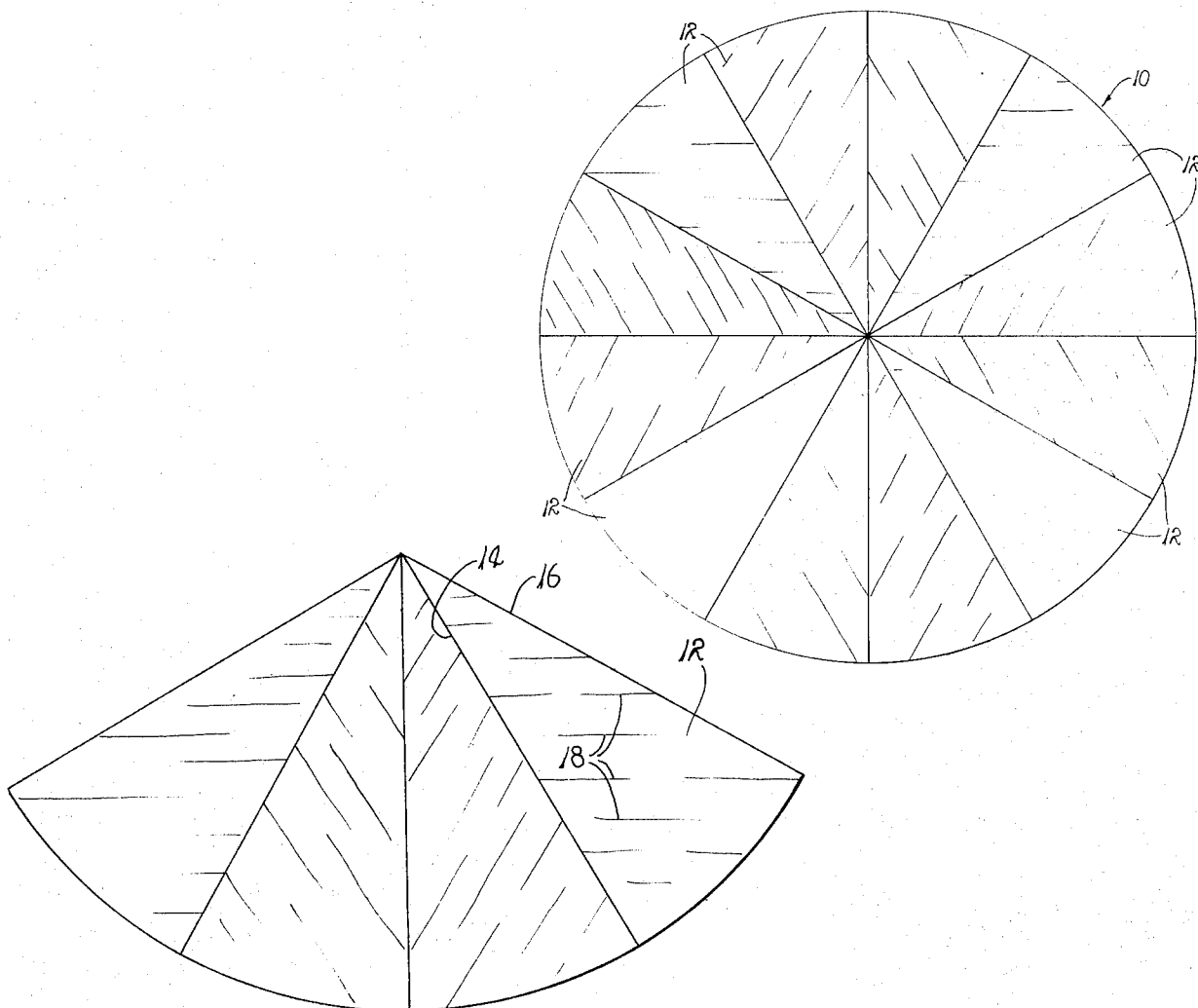
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Primary Examiner—Mayer Weinblatt
Assistant Examiner—Dennis L. Albrecht
Attorney, Agent, or Firm—Huebner & Worrel

[57] **ABSTRACT**

A planar wooden body adapted to shrink about its circumference. The body consists of a plurality of contiguous blocks of wood having congruent geometric configurations, each block is provided with a planar face and is characterized by a pair of side edge surfaces coincident with a pair of intersecting planes normally related to the plane of the face and a longitudinal axis of symmetry extended from the intersection of said pair of planes at an angle of substantially 45 degrees with respect to the direction of the grain of the wood, said plurality of blocks being adhered together by films of adhesive disposed between said side edge surfaces to form an integrated mass of a symmetric configuration with the side edge surfaces of the plurality of blocks being extended radially from a substantially common center.

2 Claims, 6 Drawing Figures



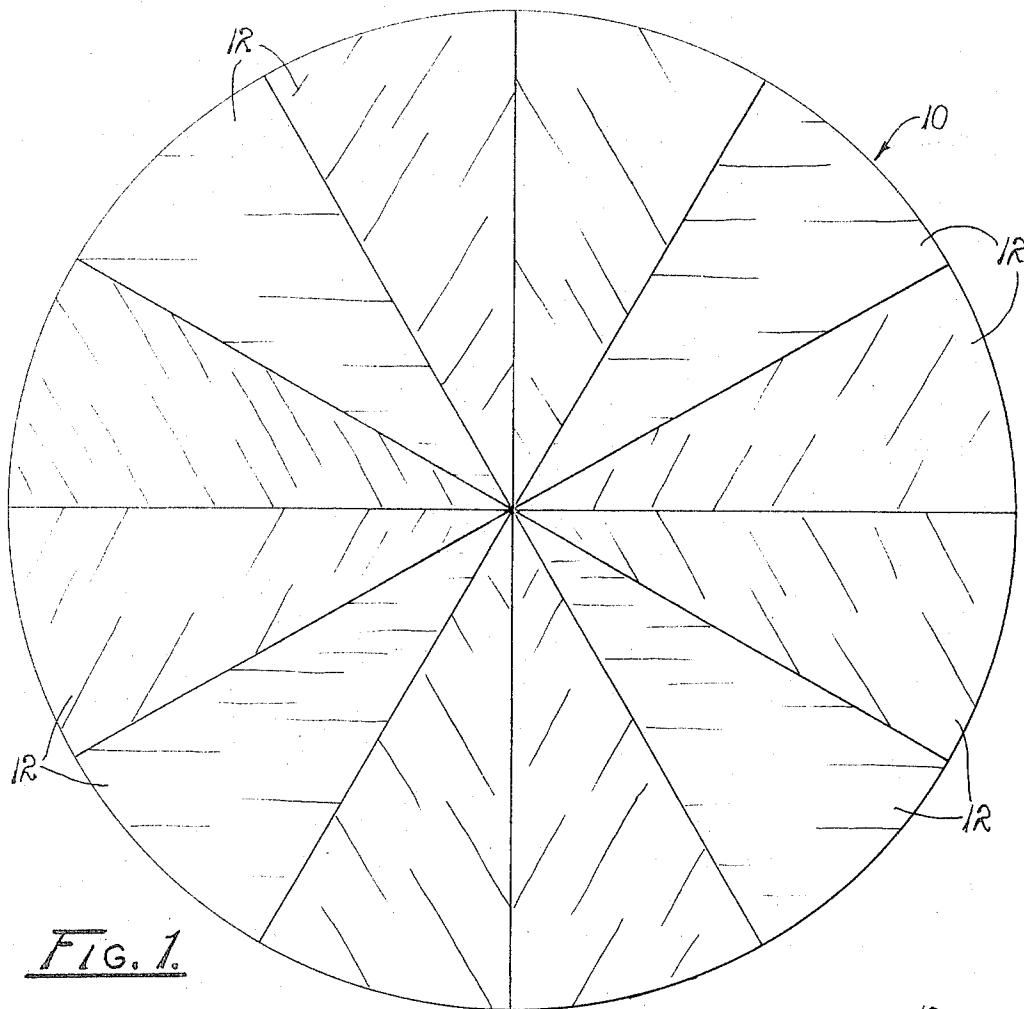


FIG. 1.

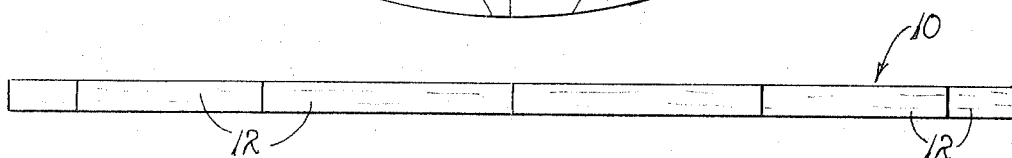


FIG. 2.

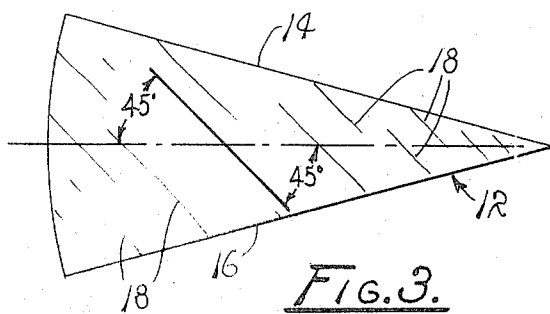


FIG. 3.

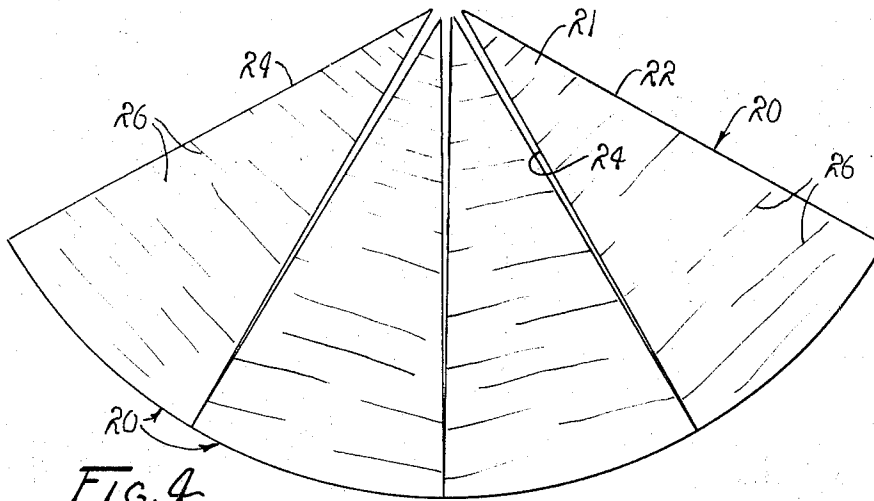


FIG. 4.

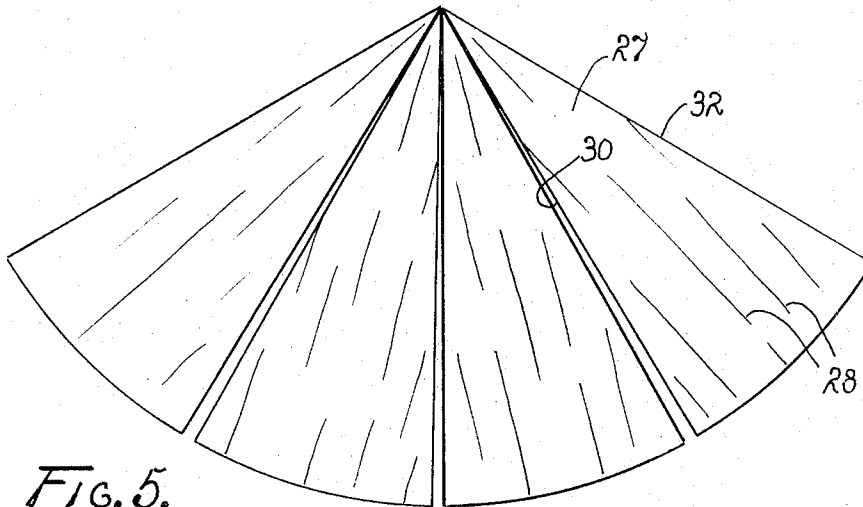


FIG. 5.

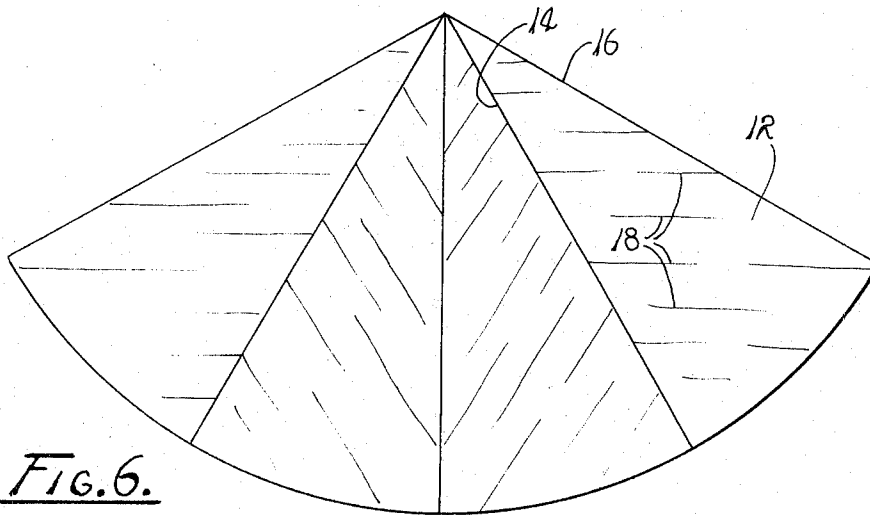


FIG. 6.

PLANAR WOODEN BODY ADAPTED TO SHRINK ABOUT ITS CIRCUMFERENCE

BACKGROUND OF THE INVENTION

The invention relates to improved wooden bodies and more particularly to a wooden body of a planar configuration adapted to shrink about its circumference and particularly suited for use as a table top in an environment which is conducive to the shrinkage of wood.

The prior art, of course, includes wooden bodies of planar configurations fabricated from a plurality of contiguous blocks of wood having congruent geometric configurations, each block being provided with a planar face and characterized by at least a pair of side edge surfaces coincident with a pair of uniformly converging planes, said plurality of blocks being adhered together by films of adhesive disposed between the side edge surface, to form an integrated mass of a symmetric configuration, which extends radially from a substantially common center.

As is well understood by those familiar with the fabrication of products made from wood, wood experiences shrinkage, as it dries, in a direction extending across the grains thereof. As can readily be appreciated by those familiar with the fabrication of bodies such as table tops and the like from a plurality of blocks of a generally triangular configuration, it is extremely difficult to prevent such bodies from experiencing deterioration due to a fracturing of the bodies as shrinkage is experienced, even in those instances where the wood employed is well "seasoned". Because of such deterioration, it heretofore has been considered impractical if not impossible to form large planar bodies from a plurality of contiguous blocks of wood of substantially pie-shape or triangular configurations.

It is therefore the general purpose of the instant invention to provide bodies of wood adapted to shrink about the circumference thereof in order to avoid fracturing as a consequence of shrinkage when subjected to an atmosphere conducive to the shrinkage of wood.

OBJECTS AND SUMMARY OF THE INVENTION

It is therefore an object of the instant invention to provide a wooden body which overcomes the aforementioned difficulties and disadvantages.

It is another object to provide a planar wooden body adapted to shrink about its circumference in order to avoid fracturing as a consequence of shrinkage inherently experienced by a body of wood when placed in an environment conducive to shrinkage of wood.

These and other objects and advantages are achieved by providing a wooden body of a planar configuration having a circular circumference comprising a plurality of contiguous blocks of wood of congruent geometric configurations, each block being provided with a planar face and characterized by at least a pair of side edges coincident with a pair of intersecting planes normally related to the plane of the face and a longitudinal axis of symmetry extended from the intersection of the planes at an angle of substantially 45 degrees with respect to the direction of the grain, said plurality of blocks being adhered together by films of adhesive disposed between said side edge surfaces, as will become more readily apparent by reference to the following description and claims in light of the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top plan view of a wooden body which embodies the principles of the instant invention consisting of a plurality of contiguous blocks of wood having congruent geometric configurations.

FIG. 2 is a side view of the body shown in FIG. 1.

FIG. 3 is a top plan view of a block of wood employed in the fabrication of the body illustrated in FIG. 1.

FIG. 4 is a fragmented top plan view of a prior art body of wood of a circular configuration consisting of a plurality of contiguous blocks with the grains thereof being so oriented that direction of shrinkage of the wood is caused to occur in radial directions.

FIG. 5 is a fragmented top plan view of a prior art body of wood of a circular configuration consisting of a plurality of contiguous blocks with the grains thereof being so oriented that the direction of the shrinkage of the wood is caused to occur, being in directions normally related to the radius.

FIG. 6 is a fragmented top plan view of a wooden body of circular configuration which embodies the principles of the instant invention, consisting of a plurality of contiguous blocks with the grains thereof being so oriented that the direction of shrinkage of the wood is caused to occur in a direction oblique to the radius of the body.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawing wherein like reference characters designate like or corresponding parts throughout the several views, there is shown in FIG. 1 a wooden body of circular, planar configuration, generally designated 10, which embodies the principles of the instant invention. As a practical matter, the body 10 has particular utility as a table top.

The body 10, in turn, is made up of a plurality of contiguous blocks of wood 12 having congruent geometric configurations. These blocks, in practice, are cut from a similar grade of lumber, preferably from lumber having particular utility in the manufacture of table tops and the like.

As best illustrated in FIG. 3, each of the blocks 12 is of a pie-shape or substantially triangular configuration and includes first and second side edge surfaces, designated 14 and 16, which are coincident with a pair of uniformly converging planes normally related to the plane of the face of the block and intersect substantially at the center of the body 10.

The relationship of the side edge surfaces 14 and 16 with the grain, designated 18, for the blocks 12 differs substantially from the relationship heretofore found in the prior art where wooden bodies are formed of contiguous blocks of wood of substantially triangular configuration.

For illustrative purposes, there is shown in FIG. 4 a partial body 20 which typifies bodies found in the prior art. As depicted in the drawing, the body 20 includes a plurality of blocks 21, each of which includes a pair of converging side edge surfaces, designated 22 and 24. These surfaces are coincident with a pair of converging planes normally related to the plane of the face of the block and intersecting at the center of the body. A longitudinal axis of symmetry extended from the zone of intersection of the planes traverses the grain 26 of the wood at an angle of approximately 90 degrees with re-

spect to its direction of elongation. Since the block of wood 21 has a propensity to shrink only in a direction orthogonally related to the direction of elongation of the grain 26 and experiences substantially no shrinkage in the direction of the grain, the circumference of the body 20 tends to remain constant while shrinkage occurs along the radius of the body. Hence, fractures and fissures are caused to occur in the body near the center thereof, as illustrated in FIG. 4.

In other instances, bodies of a configuration similar to that herebefore described have been formed from blocks of wood, such as those designated 27, FIG. 5. In such instances a longitudinal axis of symmetry extended from the zone of intersection of the planes of the side edge surfaces parallels the direction of the grain 28 of the wood from which the block is formed. It is noted that the direction of the grain, designated 28, is extended along the radius of the body. Again, shrinkage occurs in a direction extended across the grain of a block of wood rather than in a direction paralleling the length thereof. Therefore, the blocks 27 experience shrinkage only in a direction substantially normal to the radius of the body. Again, the circumference of the body remains constant. As a consequence, while radially extended, fractures and fissures are established in the blocks 27 and between the side edge surfaces, designated 30 and 32 thereof.

It is here noted that the circumference of the body 10 is permitted to shrink so that no fractures or fissures occur in or between the blocks 12 from which the body is formed. This result is achieved simply by cutting the blocks in a manner such that the side edge surfaces of the blocks are coincident with a pair of uniformly converging planes normally related to the plane of the face of the block and an elongated axis of symmetry extended from the intersection of the planes is extended at an angle of substantially 45 degrees with respect to the direction of elongation of the grain of the wood, as illustrated in FIG. 3. Therefore, it is possible for each of the blocks 12 of the body 10 to experience shrinkage, simultaneously, in directions paralleling the radius of the body 10 as well as in a direction substantially

concentric to the circumference of the body. Thus shrinkage of the body about its circumference as well as along its radius is facilitated for thus substantially eliminating stress and thereby avoiding an occurrence of fractures and fissures.

As a practical matter, suitable adhesives, glues and the like are employed, in a well known manner, as films interposed between adjacent edge surfaces of the blocks 12 for securing the blocks into an integrated mass preferably of a symmetrical and circular configuration.

In view of the foregoing, it is to be understood that the body 10 of the instant invention is substantially immune to the adverse affects of shrinkage which inherently occurs in products made of wood and subjected to environments conducive to shrinkage.

Although the invention has been herein shown and described in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is not to be limited to the illustrative details disclosed.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A planar wooden body adapted to shrink about its circumference comprising:

a plurality of contiguous blocks of wood having congruent geometric configurations, each block being provided with a planar face and characterized by at least a pair of side edge surfaces coincident with a pair of intersecting planes normally related to the plane of the face and a longitudinal axis of symmetry extended from the intersection of said pair of planes at an angle of substantially 45 degrees with respect to the direction of the grain of the wood, said plurality of blocks being adhered together by films of adhesive disposed between said side edge surfaces.

2. The body of claim 1 wherein said body is characterized by a circular circumference.

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PRINTER'S TRIM

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,853,679 Dated December 10, 1974

Inventor(s) Amerigo Terenzoni

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

[76] Inventor: Delete "Ierenzoni" and insert
---Terenzoni---

Signed and sealed this 18th day of February 1975.

(SEAL)
Attest:

RUTH C. MASON
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents
and Trademarks