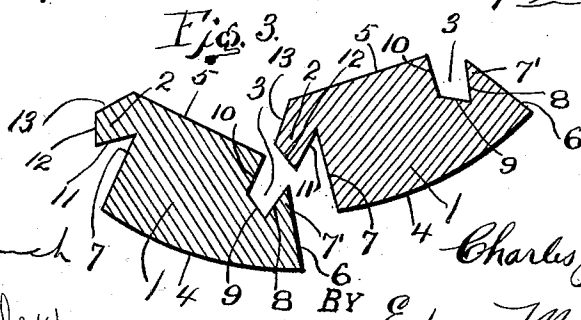
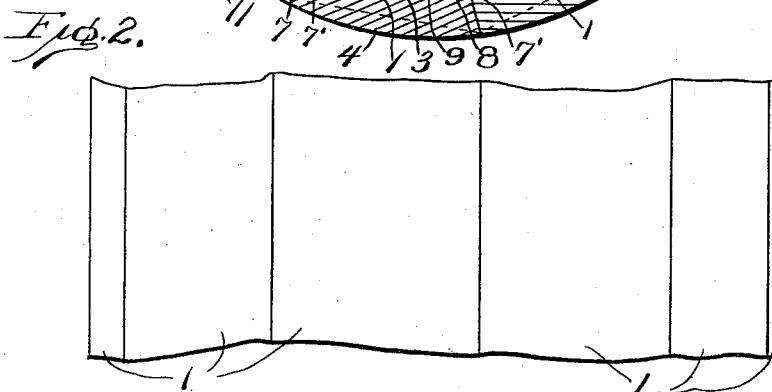
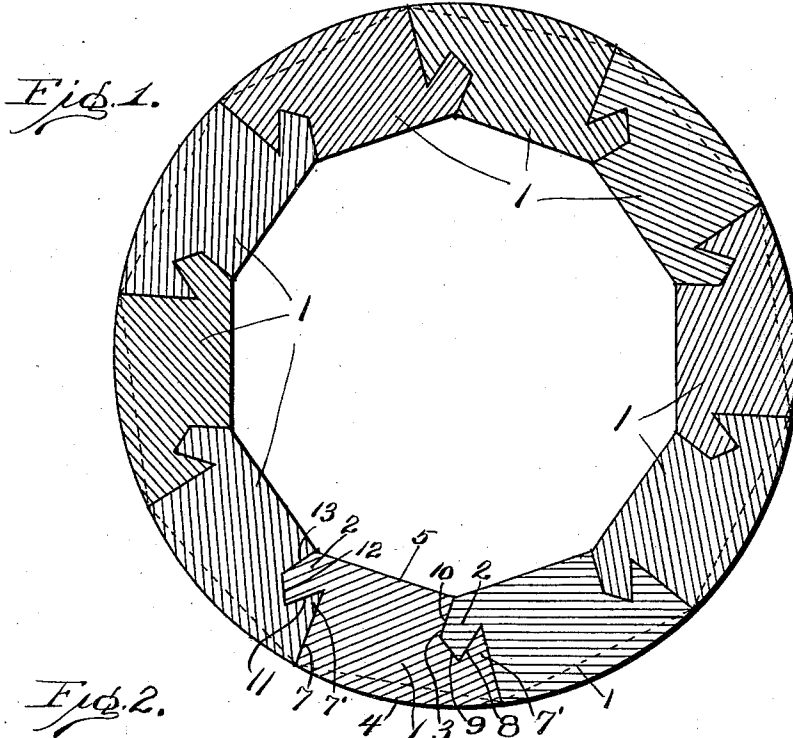


C. J. CIEUTAT.
STAVE COLUMN.
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1,041,741.

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WITNESSES:
Samuel Church
C. H. Gesler.

INVENTOR
Charles J. Cieutat,
BY Edgar M. Kitchen,
Attorney

UNITED STATES PATENT OFFICE.

CHARLES JOHN CIEUTAT, OF NEW ORLEANS, LOUISIANA.

STAVE-COLUMN.

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To all whom it may concern:

Be it known that I, CHARLES JOHN CIEUTAT, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Stave-Columns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in columns, and particularly to the type ordinarily known as wooden stave columns, and the objects of the invention are the improvement of the stave constituting the unit of the column for increasing the facility and cheapness of output while decreasing the difficulty of assemblage, and at the same time increasing the firmness and rigidity of connection of the parts assembled while providing against bursting or cracking under the swelling or expanding action of the fiber of the staves from moisture, or the separation of the parts under the contracting action of heat.

With these and further objects in view, the invention comprises certain novel constructions, combinations and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawing:—Figure 1 is a transverse section through a stave column embodying the features of the present invention, a cylindrical column being indicated in full lines and a polygonal column being indicated in dotted lines. Fig. 2 is a view in side elevation of a fragment of the column seen in Fig. 1. Fig. 3 is a transverse section of two of the staves detached and indicating their relative position when being assembled prior to the introduction of the key or final stave.

The present invention is applicable, of course, to any form of column whether transversely circular, as indicated in Fig. 1, or polysided or otherwise constructed, the form or shape of the outer face of the column being governed by the contour of the outer faces of the several staves making up the column, the formation of such outer faces being entirely a matter of choice as far as the present invention is concerned.

Referring to the drawing by numerals, the present improved column is made up of staves 1, 1, in any suitable number according

to the relative size of the staves and the column, and any one of which staves may constitute the key stave. Each of the staves 1 is provided at the inner corner of one edge with a longitudinally extending bead 2 serving in operation something of the function of a hook or link, each of the staves being formed in its inner corner of the opposite edge from the bead 2 with a longitudinal groove 3 corresponding in size, shape and relative position to the bead 2 for receiving the bead of the next contiguous stave. Each stave 1 in its transverse contour is provided with an outer face 4 and an inner face 5, both of which faces may be of any shape preferred, the lines of the faces being connected at the opposite edges of the staves by the lines of the edges of the stave, which latter bear angular relation to each other, the outermost line at one edge consisting of a straight line 6 set at an angle to the major axis of the section of the stave and also to the corresponding straight line 7 of the opposite edge of the stave. Meeting the line 6 is a straight line 8 which extends at an acute angle to the line 6 and forms the inner border line of the groove 3, the line 8 extending outwardly to a straight line 9 lying at an acute angle to the line 8 and at a less angle to the line 6 and extending from line 8 inwardly to a straight line 10 lying at an obtuse angle to the line 9 and at a very slight angle to the line 8 and extending to one of the terminals of the line of the inner face 5. The line 7 extends inwardly to a line 11 corresponding in its relation to the line 7 as line 8 to line 6. The line 11 extends to line 12 which in turn extends to a line 13, the lines 12 and 13 corresponding in their relation to each other and to the line 11 as lines 9 and 10 respectively to each other and to line 8. Thus the bead 2 extends outwardly at an acute angle to the flat face of the corresponding edge of the stave 1, and has its flat side faces arranged at a slight angle with respect to each other, and a flat terminal face arranged at an obtuse angle to one of the side faces and at an acute angle to the other.

The recess 3 of each stave is correspondingly formed, and the angular relation of the flat face of that edge of stave 1 which terminates in the recess 3 to the flat face of that edge of the stave which terminates in the bead 2 enables a snug fitting of the parts while causing the staves to lie in such

angular relation as to cause a sufficient number of them to produce an inclosure. The side faces of the bead 2 being set at a slight angle with respect to each other produce a slight outward taper or inward flare of the bead, so that the bead is thicker at its base or portion connection with the main body of the stave than at any other point, and hence is more susceptible of resisting lateral or twisting strain. The said base being at the inner corner of the stave and being tapered outwardly facilitates the driving of the bead firmly into the recess of the next preceding stave, so as to overhang the wedge-shaped portion 7' of the next preceding stave lying between the bead 2 and the face of the contiguous edge, whereby the parts may be assembled with facility and at the same time may be firmly locked together against displacement either by expansion from moisture or contraction from heat. Furthermore, the arrangement of the bead at the inner corner of the stave allows a considerable area between the outer surface of the column and the outermost point of the bead, and therefore any slight expansion and contraction occurring on the exposed surface of the column will not be liable to effect the bead. Each of the staves 5 is transversely wedge-shaped, being tapered from the edge provided with the bead 2 to the opposite edge thereof.

The several staves are assembled by being brought together with a lateral or edgewise movement as indicated by the position of the parts in Fig. 3, until all of the staves have been assembled, except the final or key stave which must be introduced by a longitudinal movement from the end of the column, and when the key stave is in position the entire column becomes a solid structure keyed together and incapable of being

dismantled except by longitudinal withdrawal of one of the staves. Obviously, all of the staves being alike, any stave may constitute the key stave. The transverse form of the column will, of course, vary with the nature of the outer faces of the staves and may be circular, by having the outer faces of the staves arched, or may be formed polysided, by having the outer faces of the staves flattened as indicated in dotted lines in Fig. 1.

It will be observed that the line of the meeting faces represented by lines 6 and 7, when the staves are arranged in the form of a column extends at a tangent to a circle coaxial with the column.

What I claim is:—

A stave column comprising a plurality of interlocked staves engaged edge to edge, each having at one edge adjacent its inner face a longitudinal groove or recess, directed outwardly and tapered in an outward direction, the groove having a flat base disposed at an obtuse angle to one of its sides, and at an acute angle to the other, the other edge of each stave being formed adjacent the inner face of the stave with a laterally disposed outstanding bead shaped to snugly fit the groove of the corresponding opposite edge of the adjacent stave, each stave having a relatively large portion of material disposed outwardly beyond the groove and bead, and the meeting edges of the several staves outside of the grooves and beads lying in lines disposed at a tangent to a circle coaxial with the column.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES JOHN CIEUTAT.

Witnesses:

A. E. HOTARD,
W. H. WARD.