

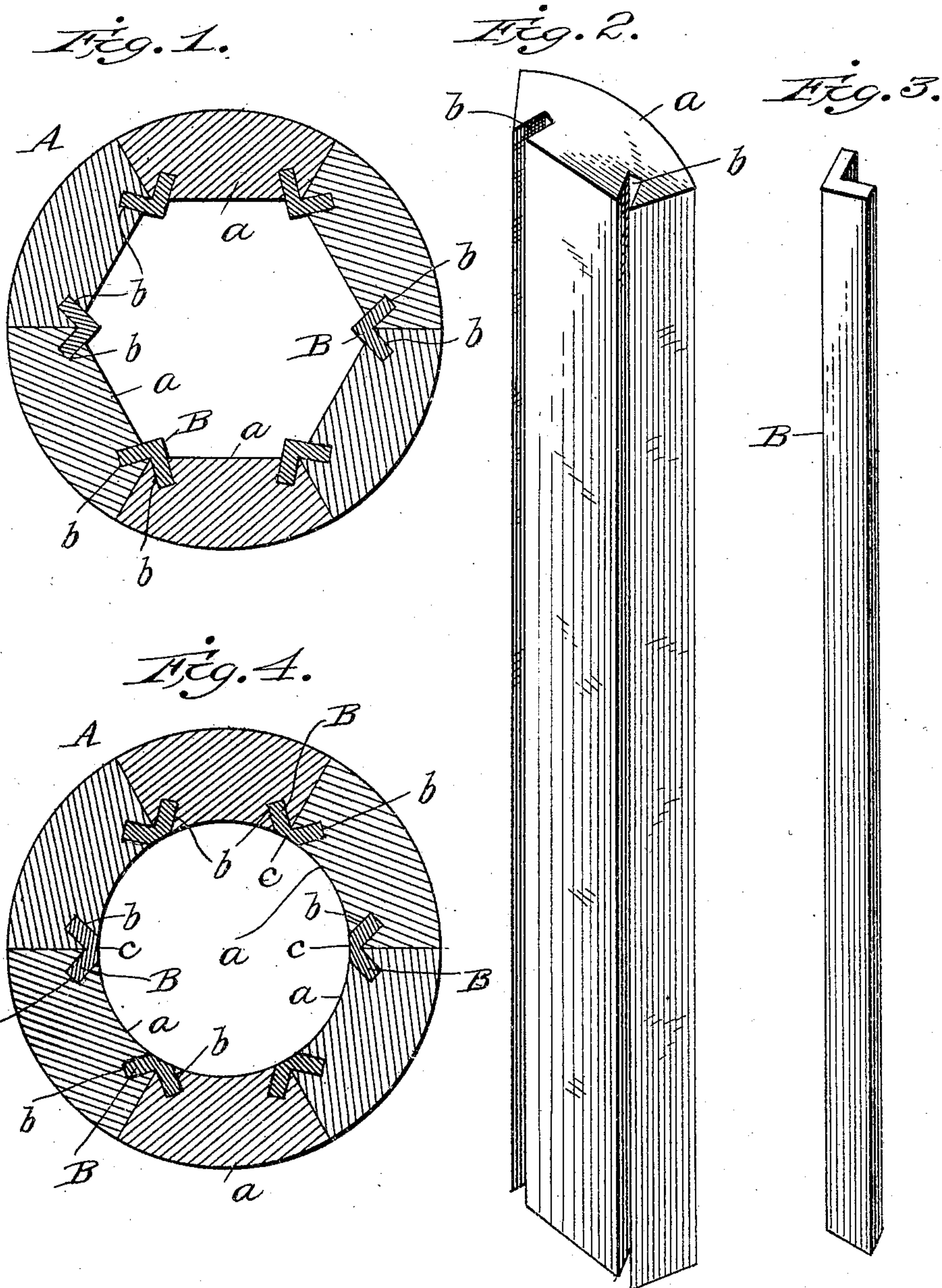
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H. S. CONROW.

STAVED COLUMN, SHAFT, OR SIMILAR ARTICLE.

APPLICATION FILED JAN. 20, 1905.



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# UNITED STATES PATENT OFFICE.

HENRY S. CONROW, OF ASBURY PARK, NEW JERSEY.

## STAVED COLUMN, SHAFT, OR SIMILAR ARTICLE.

SPECIFICATION forming part of Letters Patent No. 788,189, dated April 25, 1905.

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*To all whom it may concern:*

Be it known that I, HENRY S. CONROW, a citizen of the United States, residing at Asbury Park, in the county of Monmouth and State of New Jersey, have invented certain new and useful Improvements in Staved Columns, Shafts, or Similar Articles; and I do 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 staved columns, pillars, or shafts of either a cylindrical or polygonal form and to barrels, drums, and buckets or other articles formed of staves; and it has for its object to provide a simple, durable, and comparatively inexpensive device whereby the staves may be securely locked together in the form in which they are arranged and are enabled to resist expansion and contraction; and it consists of the peculiar construction and arrangement of the parts, as hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a horizontal section through a cylindrical shaft, showing my invention; Fig. 2, a perspective view of one of the staves; Fig. 3, a similar view of one of the locking-keys, and Fig. 4 a modified form of the angle-strip or key shown in position.

Similar letters refer to similar parts throughout the several views.

Referring to the drawings, A represents a cylindrical column or shaft made up of staves *a*, having longitudinally-extending grooves or channels *b* formed in their inner angles at each side or edge of the stave. The grooves or channels extend inwardly and at an angle to and away from the edges of the staves, and, as shown, that side of the groove or channel adjacent the edge of the stave commences at the corner or an angle of the stave, so as to leave practically the full depth or thickness of the stave at its edge, and the grooves or channels extend substantially at right angles to each other when the staves

are arranged edge to edge in constructing the column or other article.

B represents the keys for locking the staves in their set or proper positions, said keys being formed of angled strips adapted to fit within the grooves or channels *b* and over the joints or meeting edges between the staves. The keys act to clamp the staves together and prevent any lateral inward or rearward movement of the same. In constructing the column or other article one leg of a key is inserted in one of the grooves or channels of one of the staves and the next stave is arranged alongside the first stave and slid in with its edge abutting the edge of the first stave until the other leg of the key enters fully into the groove or channel of the said second stave, thus locking the two staves together at one edge. This operation is repeated for all the staves until the last key is to be inserted, which must be driven into the groove or channel from or at the end of the channels or grooves, thus locking the last stave in place and securing all the staves in position and completing the column or other article.

If the article being constructed is a barrel, bucket, or other vessel and it is desired that an unobstructed or plane surface be provided on the interior thereof, the angle or arris of the key may be cut off, as at *c*, Fig. 4, which shows the staves connected by the key.

I am aware that barrels, columns, and like articles have been heretofore made from staves having longitudinal grooves therein at points adjacent but from the edges of the staves, into which parallel tongues formed on cleats are inserted, and that staves having inclined grooves near their edges to form dovetail grooves to receive dovetailed clamping-strips are old, and I do not desire to be understood as claiming such construction.

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

1. A staved article of manufacture comprising staves having longitudinal grooves or channels formed in their inner angles at acute

angles to the edges of the staves, and angled strips forming keys adapted to enter the grooves or channels of adjoining or abutting staves to lock the same together and to cover  
5 the joint between the staves.

2. A staved article of manufacture comprising a series of staves having longitudinally-extending grooves or channels formed in their inner angles at each side and extending  
10 ing diagonally into the staves away from their edges, and locking means fitting over the inner joints between the staves, and consisting of angled keys fitting into the adjacent grooves or channels.

15 3. A staved article of manufacture comprising staves having longitudinal grooves or

channels formed in their edges, said grooves or channels being formed by the removal of the inner angles of the staves and extending diagonally into said staves, the channels and  
20 the edge surface of the staves forming an outwardly-directed acute angle, and locking means fitting over the inner joint between the staves and consisting of angled keys fitted into the grooves of channels.

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

HENRY S. CONROW.

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