

(No Model.)

W. M. ALLYN.  
WOODEN BARREL.

No. 337,110.

Patented Mar. 2, 1886.

Fig 1.

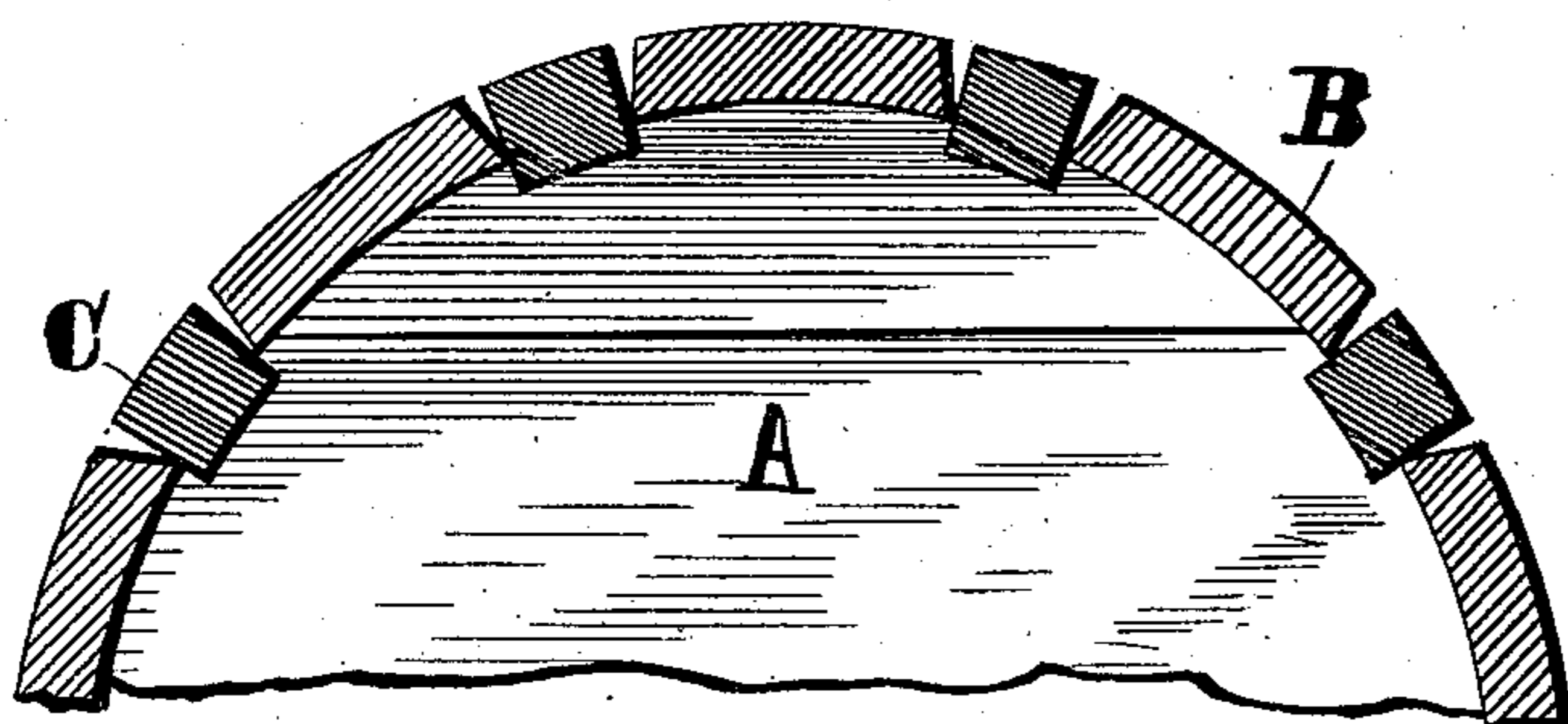


Fig 2.

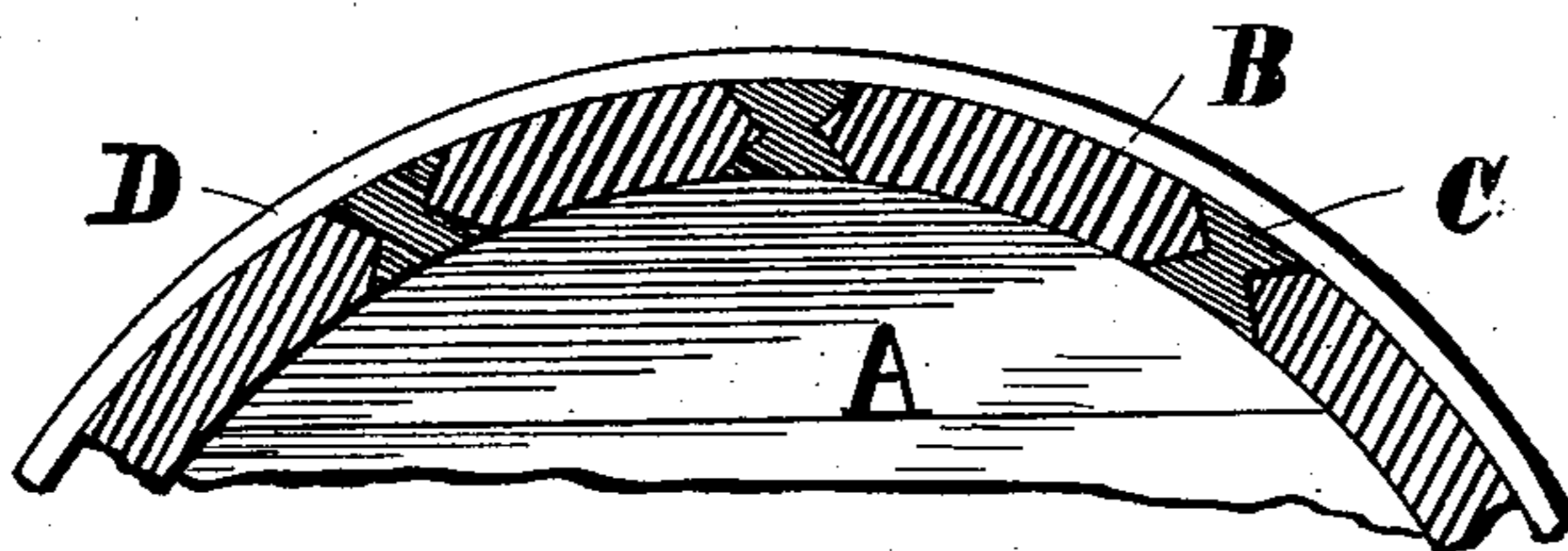
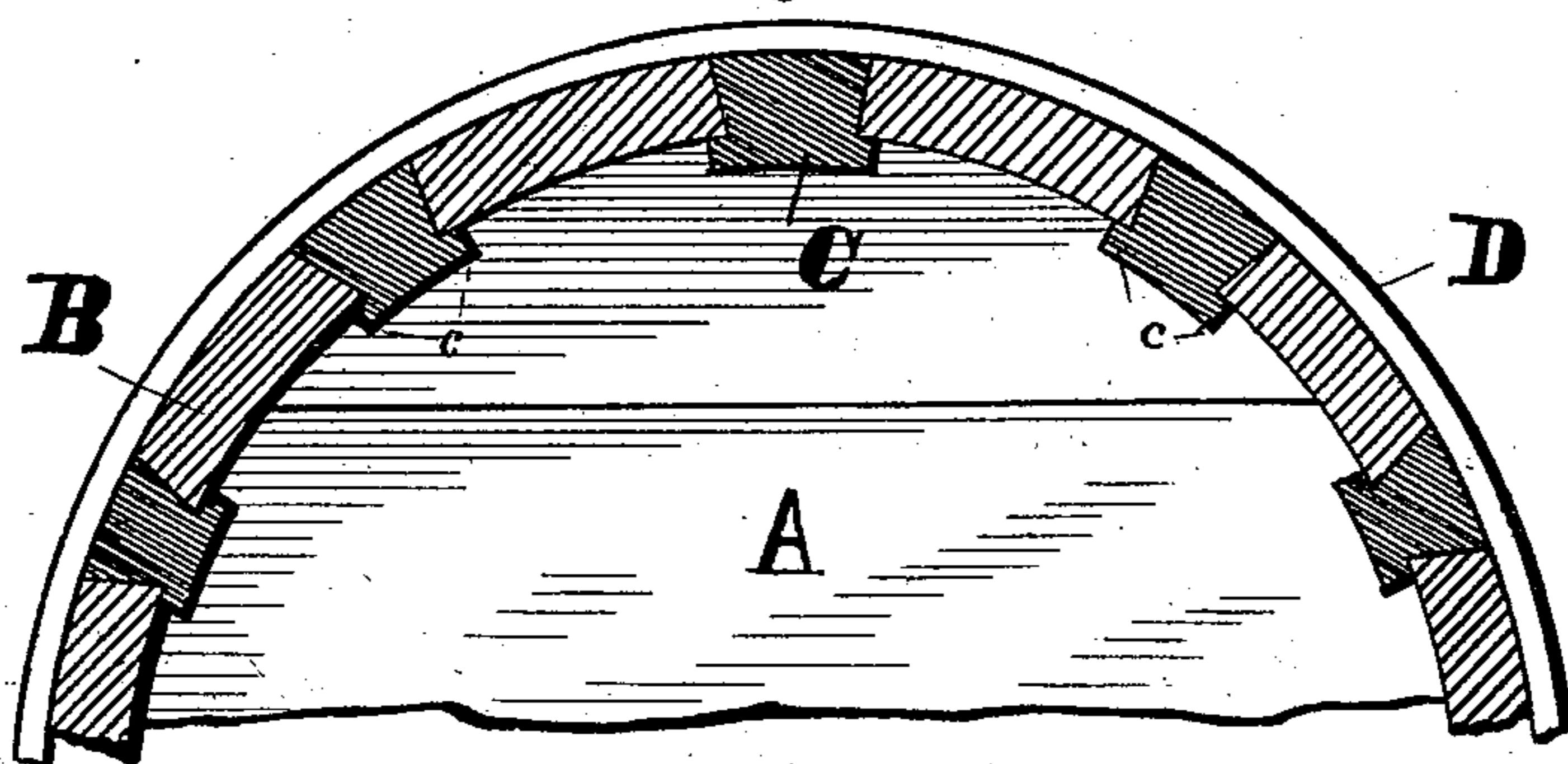


Fig 3.

Witnesses:

A. E. Howell.  
L. J. Johnson

Inventor:

W<sup>m</sup> M. Allyn  
by  
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# UNITED STATES PATENT OFFICE.

WILLIAM M. ALLYN, OF HASTINGS, MINNESOTA, ASSIGNOR TO HIMSELF  
AND CHAS. ESPENSCHIED, OF SAME PLACE.

## WOODEN BARREL.

SPECIFICATION forming part of Letters Patent No. 337,110, dated March 2, 1886.

Application filed October 17, 1885. Serial No. 180,194. (No model.)

*To all whom it may concern:*

Be it known that I, WM. M. ALLYN, of Hastings, in the county of Dakota and State of Minnesota, have invented certain new and useful Improvements in Wooden Barrels, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a cross-section of a barrel, showing the staves in position before being hooped. Fig. 2 is a similar view showing the same hooped. Fig. 3 is a detail section illustrating a modification.

This invention relates to improvements in wooden vessels—such as barrels, casks, &c.—which are made up of staves bound together with hoops, and its object is to construct the same so that they will be always tight.

The invention consists in the employment of alternate hard and soft wood staves or strips, as will be fully understood from the following description, and pointed out in the claims.

As heretofore constructed, wooden-stave vessels, and especially flour-barrels, have been liable to shrink and open at their joints when the wood becomes dry, thus rendering the barrel leaky, and wasting the material contained therein.

The present invention is intended to entirely obviate these difficulties by providing a barrel which will be always in a tight condition. In the drawings, A designates a barrel, which is constructed of staves B and strip C, bound together by hoops D, in the usual manner. The staves B are made up of any suitable hard wood, preferably oak, are of the usual size, and have their side edges made square or slightly beveled outward, as shown in the drawings. The staves or strips C are narrower and of softer wood than the staves B, being preferably only about three-quarters of an inch wide. They should also be about an eighth of an inch thicker than staves B, so that when the barrel is bound up by the hoops their inner edges will overlap the inner edges of staves B, and form a perfectly tight joint.

To make a barrel, the staves B are set up in the usual manner, having interposed between their edges the strips C, as shown in Fig. 1. The barrel is then bound up by the hoops, and the edges of the hard-wood staves will be forced into the edges of the strips C, which, being wider than the staves, will overlap their inner edges, as shown at c, Fig. 2.

By making the edges of the hard-wood staves V-shaped, as shown in modification, Fig. 3, the soft strips need not be thicker than the staves; but the described construction is the one I prefer.

It is obvious from the above description that barrels so constructed will be always tight and cannot open joints, as the hoops will prevent the staves and strips spreading outwardly, and the bevel on staves B will prevent the strips and staves moving inwardly. It is also obvious that this manner of constructing barrels can be applied to many other wooden vessels, such as tubs, buckets, &c.

Having described my invention, I claim—

1. In a wooden vessel, the combination of alternate hard and soft wood staves, substantially as and for the purpose set forth.
2. In a barrel or other wooden vessel, the combination of the hard-wood staves and narrow soft-wood strips, thicker than the staves, and compressed to have their inner edges overlap the inner edges of the staves, substantially as specified.
3. The combination of staves B, having beveled sides, and compressed strips C, entered by and overlapping the inner edges of staves B, substantially as described.
4. As a new article of manufacture, a barrel, keg, or other vessel constructed of hard-wood staves and interposed soft-wood strips bound together to form a close joint, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WM. M. ALLYN.

Witnesses:

M. H. MCKAY,  
M. V. SEYMOUR.