

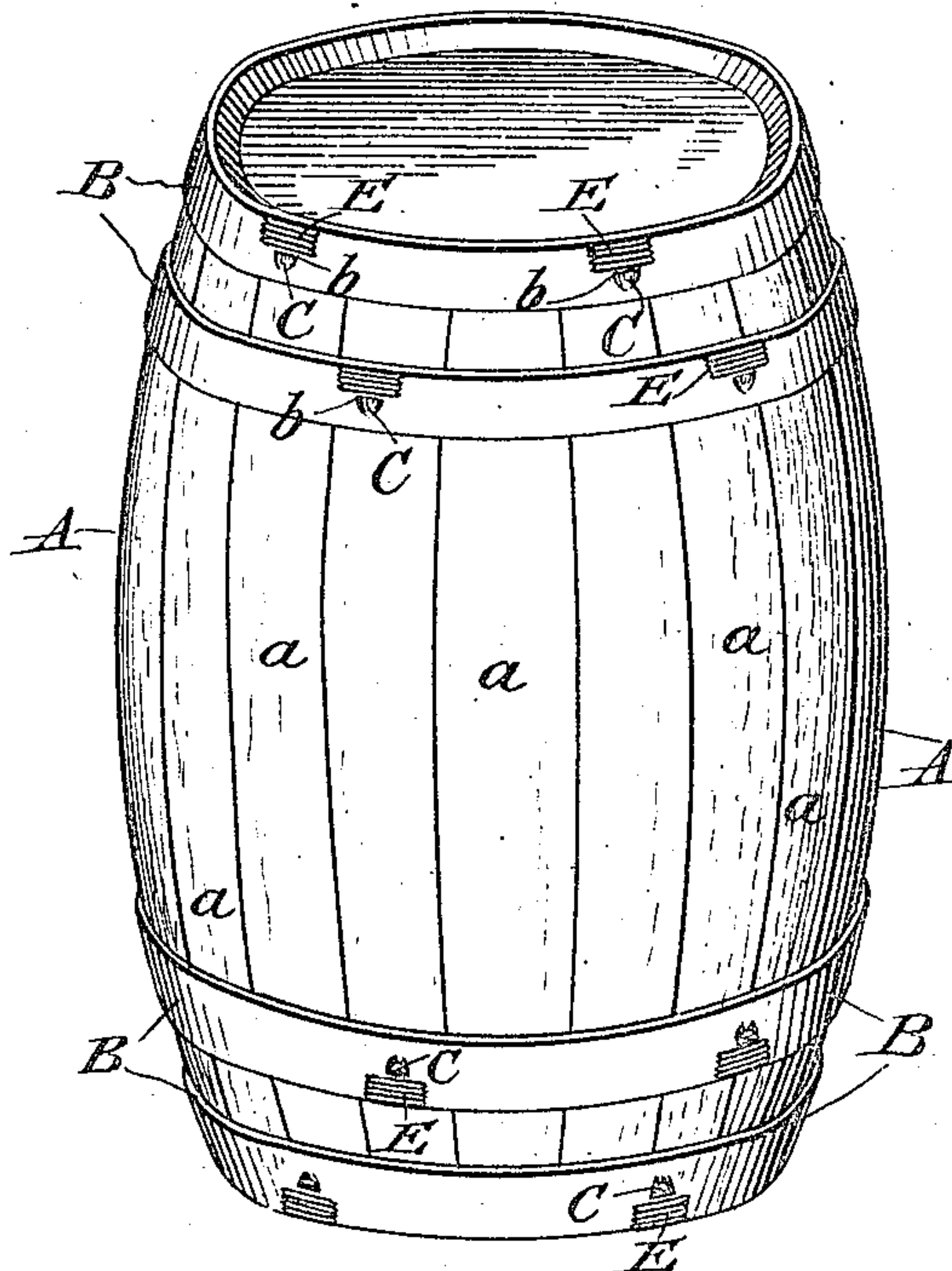
No. 887,185.

PATENTED MAY 12, 1908.

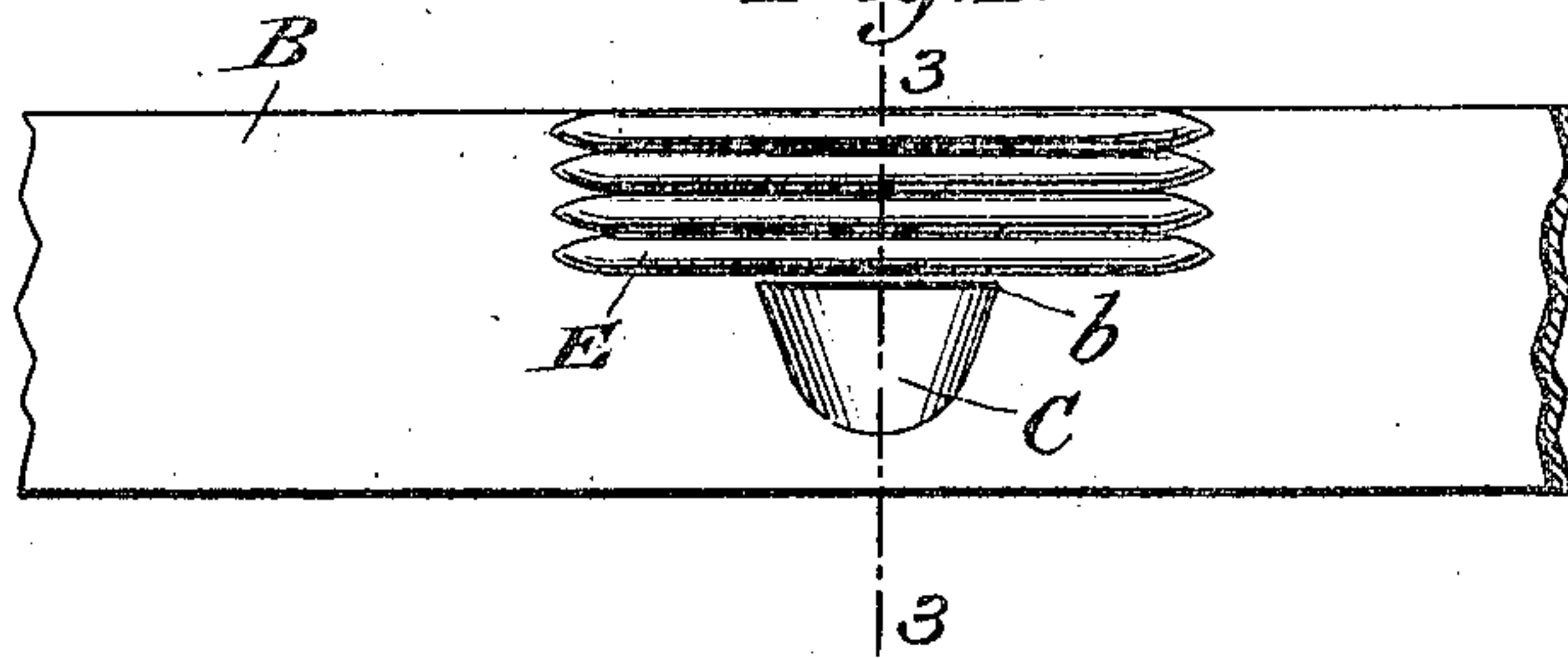
L. A. BRIGEL, JR.  
COOPERAGE HOOP.

APPLICATION FILED MAY 21, 1906.

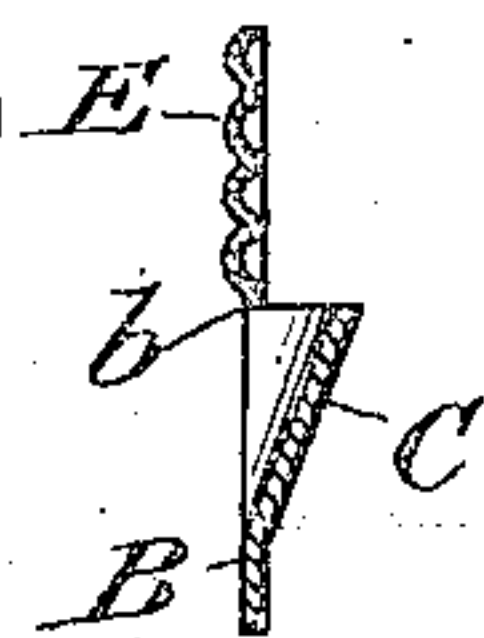
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

A. McCormack  
Chas. Barth

Inventor:

Leo A. Brigel Jr  
By C. W. Miles  
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# UNITED STATES PATENT OFFICE.

LEO A. BRIGEL, JR., OF CINCINNATI, OHIO.

## COOPERAGE-HOOP.

No. 887,185.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed May 21, 1906. Serial No. 317,860.

*To all whom it may concern:*

Be it known that I, LEO A. BRIGEL, Jr., a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cooperage-Hoops, of which the following is a specification.

My invention relates to improvements in barrel casks, and similar objects of cooperage. One of its objects is to provide improved means for retaining hoops in place after they have been driven to position.

Another object is to provide means for retaining the hoops in position which will not interfere with driving or re-driving the hoops at any time.

Another object is to provide a hoop fastening device which can be applied to old casks or barrels as well as to those in process of construction.

Another object is to provide means for locally strengthening the hoops at the point where the fastening is applied.

It further consists in certain details of form, combination and arrangement, all of which will be more fully set forth in the description of the accompanying drawings, in which,

Figure 1 is a perspective view of a barrel embodying my improved fastening device. Fig. 2 is an enlarged plan view of a section of the hoop with my improved fastening and means for locally strengthening the hoop. Fig. 3 is a section on line 3—3 of Fig. 2.

Various expedients have heretofore been resorted to to fasten the hoops in place upon cooperage work after they have been driven, such as driving nails into the stave along the edge of the hoop, providing ribs on the inner face of the hoop, etc., all of which have been unsuccessful.

As shown in the accompanying drawings, A, represents the barrel, *a* the staves and B the hoops, which are severed or slit at *b* at two or more places for a short distance, and a lip, C, caused to project inward by forcing of the metal of the hoop at the lip out of the plane of the hoop. The tendency in driving the hoop is to force the lip back nearly into line with the balance of the hoop, the lips however engage the staves and serve to prevent the hoops slipping backward and thus obviate the necessity to use chalk or rosin in driving. After the hoop has been driven to place, a blunt instrument may be employed

to drive or sink the lip further into the face of the stave, thus firmly locking the hoop in place. Should it be desired at any time, the hoop may be further driven and again locked as above described. I preferably strengthen the hoop at the point where the lips are formed by corrugating or forming ribs E therein, running lengthwise of the hoop-iron, which assist in resisting and preventing damage to the hoop during the driving operation. The stamping or forming of the ribs E serves to increase the tensile strength of the metal at this point and to assist in retaining the tongue in engagement with the stave.

Where it is desired to remove the hoop from the barrel after being locked, as above described, the same may be done by inserting a suitably formed tool beneath the lips, C, to raise the same into line with the balance of the hoop and the hoop is then driven off.

While I regard the form of lip shown as the preferred and strongest form, the outline of the lip may be variously modified.

The device herein specified is capable of considerable modification without departing from the principle of my invention.

Having described my invention, what I claim is:

1. A hoop for the above purpose having a series of slits cut lengthwise of the hoop, tongues projecting inward from one side of said slits to engage the staves to lock the hoops in place, and a series of raised ribs parallel with the slits formed in the metal of the hoop at the opposite side of said slits.

2. A hoop for the above purpose having inwardly projecting lips formed integral with the hoop by slitting said hoop and bending the metal at one side of said slits, and reinforcing ribs opposite said slits on the side from which the hoop is to be driven.

3. In a device of the character indicated, a hoop provided with a locking device formed by slitting the hoop and forcing the metal at one side of said slit, after the hoop has been driven to place, into an inwardly projecting lip and embedding said lip in the face of the staves and a series of raised ribs parallel with and opposite said slits.

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

LEO A. BRIGEL, JR.

Witnesses:

A. McCORMACK,  
C. W. MILES.