

No. 639,193.

Patented Dec. 12, 1899.

J. B. ALLIGER.
BARREL.

(Application filed Apr. 7, 1898.)

(No Model.)

Fig. 1.

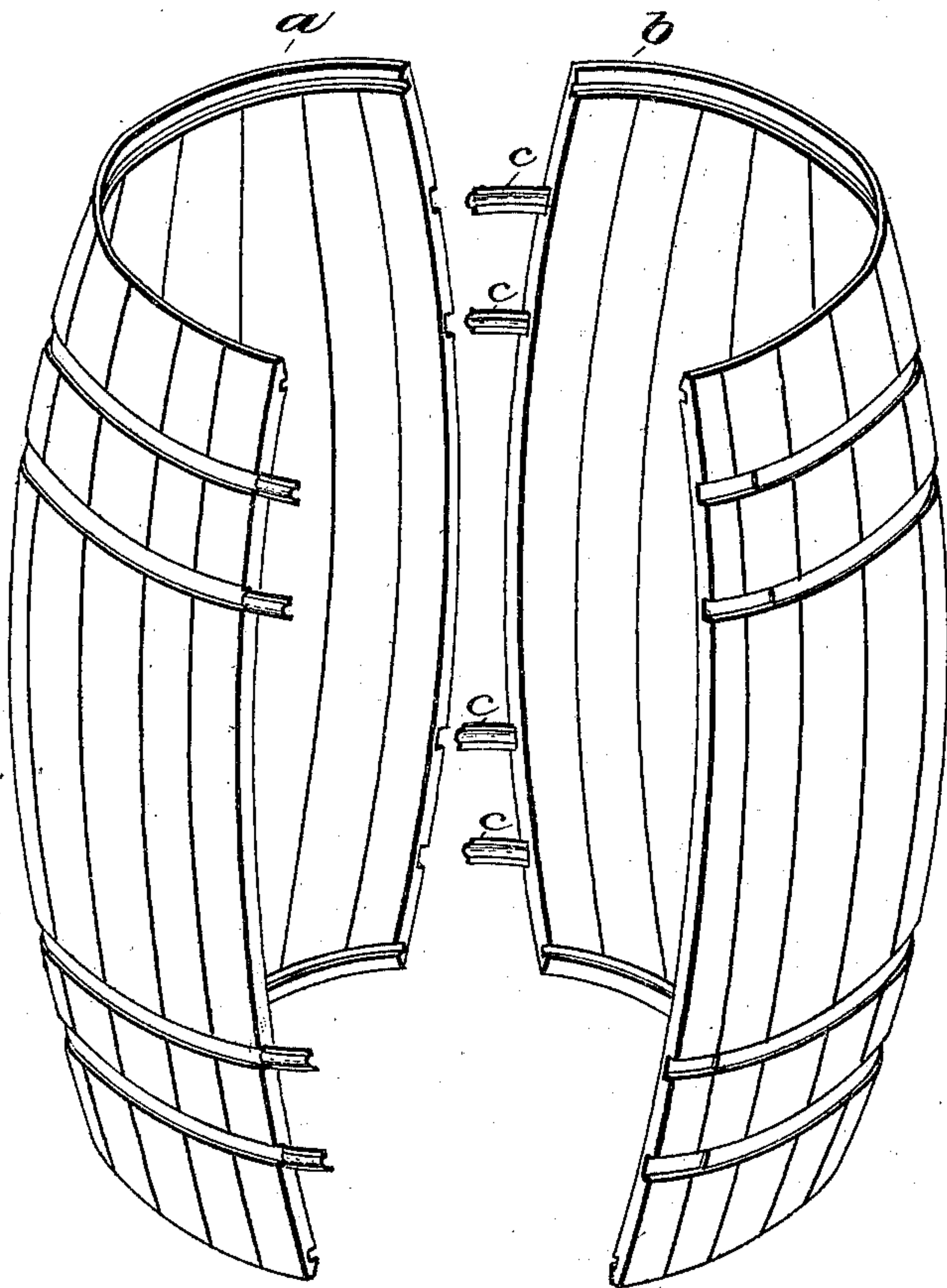


Fig. 2.

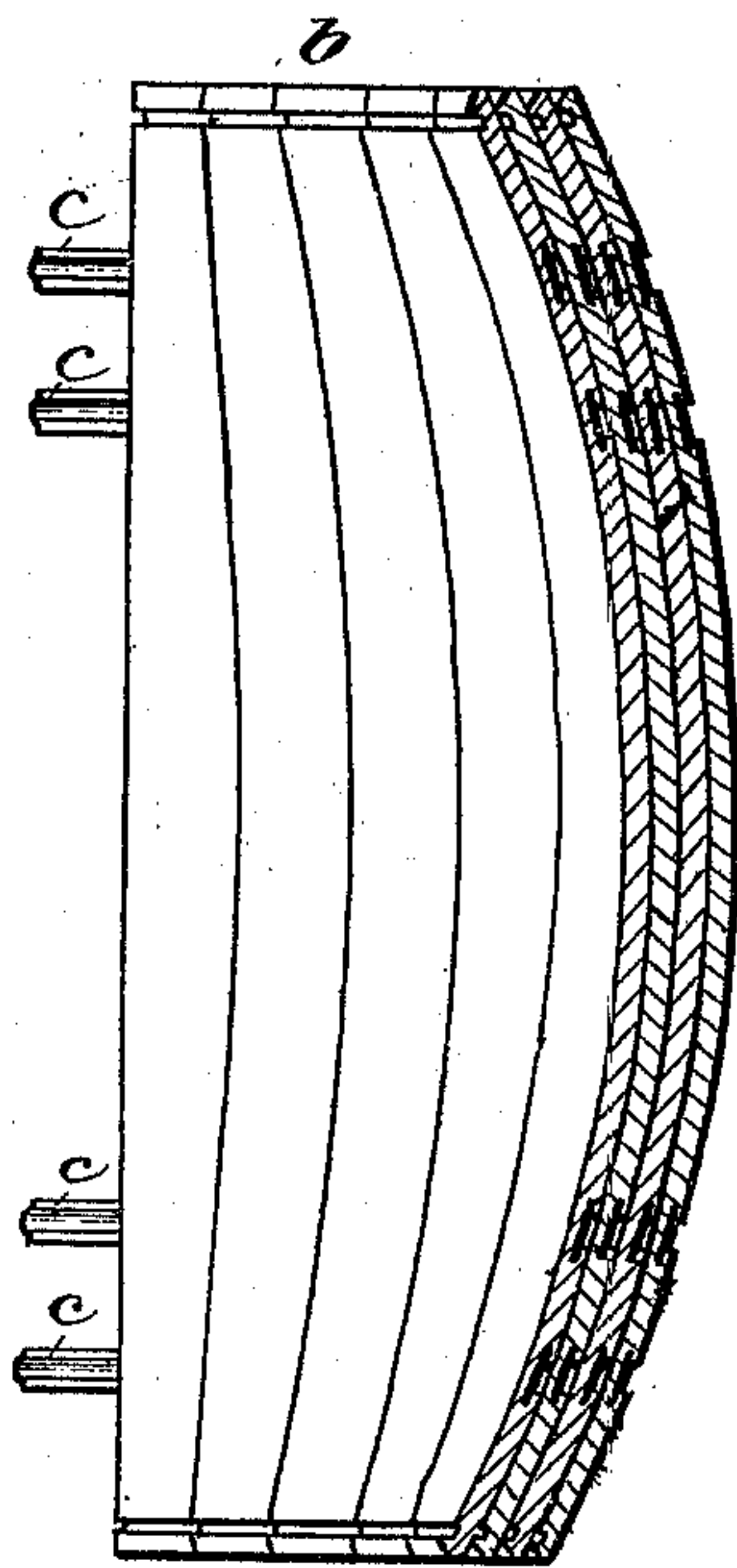


Fig. 3.

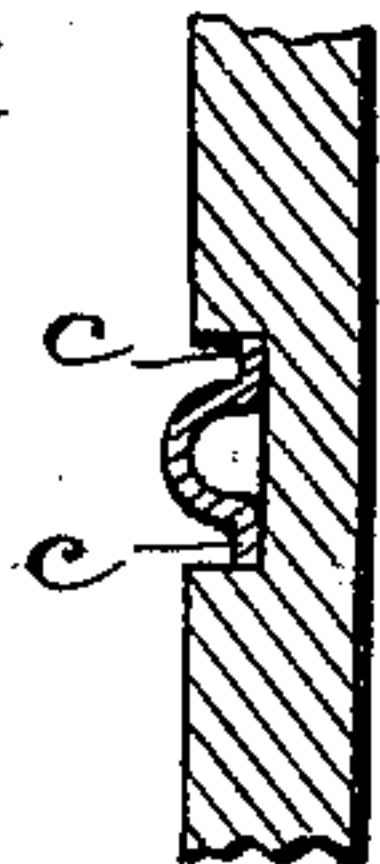
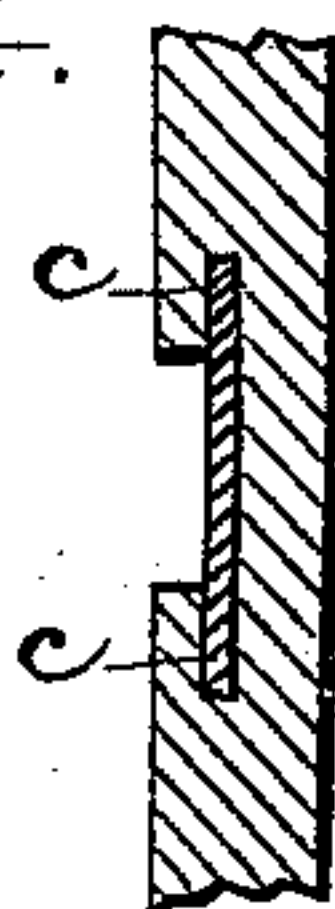


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

JESSE B. ALLIGER, OF CHATTANOOGA, TENNESSEE.

BARREL.

SPECIFICATION forming part of Letters Patent No. 639,193, dated December 12, 1899.

Application filed April 7, 1898. Serial No. 676,769. (No model.)

To all whom it may concern:

Be it known that I, JESSE B. ALLIGER, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented certain new and useful Improvements in Barrels; 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 ap-
10 pertains to make and use the same.

My invention relates to barrels; and the object is primarily to provide means for joining the staves of the barrel together.

A further object is to join the staves in sections, each section being held together by a novel form of hoop and adapted to be nested in transportation, and thereby economize in space.

With these objects in view the invention
20 consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the drawings, Figure 1 is a perspective view of two sections forming the sides of my barrel. Fig. 2 is a sectional view through a series of sections nested. Fig. 3 is a sectional view through one of the staves and a sheet-metal strip or hoop before the latter has been expanded and embedded into the staves. Fig.
30 4 is a similar view of the same part, showing the edges of the hoop or strip expanded and embedded in the stave.

In said drawings, *a b* denote the two sections of the barrel, each section consisting of
35 a series of wooden staves connected together by semicircular strips or hoops. Each stave is grooved or countersunk horizontally, the grooves or countersinks registering. The metallic strips or hoops consist of semicircular
40 bands or straps arched in cross-section and formed with parallel straight edges *c*. These straps or bands are inserted in the grooves or countersinks of the staves, as shown in Fig. 3, and the arched portions straightened out,
45 as shown in Fig. 4, thus expanding the straight parallel edges into the walls or edges of the countersinks or grooves and effecting a secure union of the metallic strips with the staves. The said hoops of one barrel-section extend
50 beyond one of its edges and lap into the

grooves or countersinks of the other barrel-section, and when these two sections are placed together the extending ends of the hoops are flattened out into the said grooves, thus expanding the edges of the hoops into
55 the edges or walls of the grooves and connecting the two sections of the barrel together.

The sections in transportation may be nested together, as shown in Fig. 2, and thus save a great deal of room heretofore wasted in the
60 shipment of complete barrels, and when they arrive at their destination the sections may be easily put together to form the barrel.

It is of course understood that the barrel will be provided with suitable heads.
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Although I have specifically described my invention as applicable to barrels, it is evident that the invention may be applied to other uses—such, for instance, as uniting the sections of penetrable material in the construction of various forms of packing and
70 storing vessels.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—
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1. A metal joint or union for two or more pieces of wood or penetrable material, consisting of a strip of sheet metal seated in a countersink in the said pieces and having its edges locked into the material at the edges of
80 the countersink, as and for the purpose described.

2. A metal joint or union for two independent pieces of wood or similar penetrable material, consisting of a piece of sheet metal
85 countersunk in each of the said pieces of wood and expanded laterally to cause its edges to enter and lock with the material at the edges of the countersink, substantially as set forth.

3. A box or receptacle having two or more
90 of its members joined by a metal strip or strips let into grooves in such members and expanded laterally at their edges to lock the strip in the grooves, substantially as described.
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4. A metal strip for receptacles seated in a groove and locked or bound in its edge by laterally engaging the material at the edge of the groove, substantially as specified.

5. A sheet of wood or similar fibrous mate-
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rial strengthened by a strip of metal let into a groove or offset across the grain, and having its edge expanded laterally to bind or lock against the material at the edge of the groove or offset, substantially as set forth.

6. A metal joint or union for two independent pieces of wood or similar penetrable material, consisting of a piece of metal sunk in each of the said pieces of wood and expanded laterally to cause its edges to enter and lock with the material at the edges of the countersink, substantially as described.

7. The combination with a piece of wood or other similar penetrable material provided with an open-ended groove, of a strip of metal located in said groove and wedged at its edges into the substance of the material at the edges of the groove, whereby said strip will be bound or locked in the material against a drawing or longitudinal movement, substantially as set forth.

8. A strip of sheet metal seated in a groove in the surface of a piece of wood or similar material to which it is attached and expanded laterally at its edge or edges to cause the edge to enter or penetrate the material and thereby bind or lock the strip in the groove against a drawing movement longitudinally therein.

9. A metal joint or union for two pieces of wood, or similar penetrable material, consisting of a strip of sheet metal seated in the countersink in said pieces, and having its edges locked into the material at the edges of the countersink, substantially as set forth.

10. A metal joint or union for two pieces of wood or similar penetrable material, consisting of a piece of sheet metal countersunk into the wood and expanded laterally to cause its edges to enter and lock in the material at the edges of the countersink, substantially as set forth for the purpose described.

11. A metal strap fitted in a groove, and locked or bound at its edges by laterally en-

gaging the material at the edge of the groove, substantially as specified.

12. The metal joint or union for two pieces of wood or similar penetrable material, consisting of a piece of metal countersunk in the wood and expanded laterally to cause its edges to enter and lock into the material at the edges of the countersink, substantially as specified.

13. A piece of sheet metal seated in a groove in the surface of a piece of wood or similar material to which it is attached, and expanded laterally at its edge or edges and thereby bound or locked into the material in which the groove is formed, so as to be firmly attached and held against drawing movement therein, substantially as described for the purpose set forth.

14. A barrel having a groove, in combination with a hoop located within the groove and having its edges embedded in the walls thereof, the width of the embedded hoop being greater than that of the groove, whereby when the edges of the hoop are forced into the walls of the groove, the fibers of the wood will expand around the edges of the hoop and clamp the same in place.

15. The combination with two sections of a barrel, each section consisting of staves provided with aligned grooves, semicircular bands engaging said staves and embedded in the walls of said grooves, the bands of each section projecting beyond one of the edges of that section and overlapping and fastened in the grooves of the other section, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JESSE B. ALLIGER.

Witnesses:

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EMRY O. WILKIE.