(No Model.) 2 Sheets—Sheet 1.

C. VERNIAUD.

RETAINING DEVICE FOR BARREL HOOPS.

No. 397,100. Patented Jan. 29, 1889.

Fig. 1.

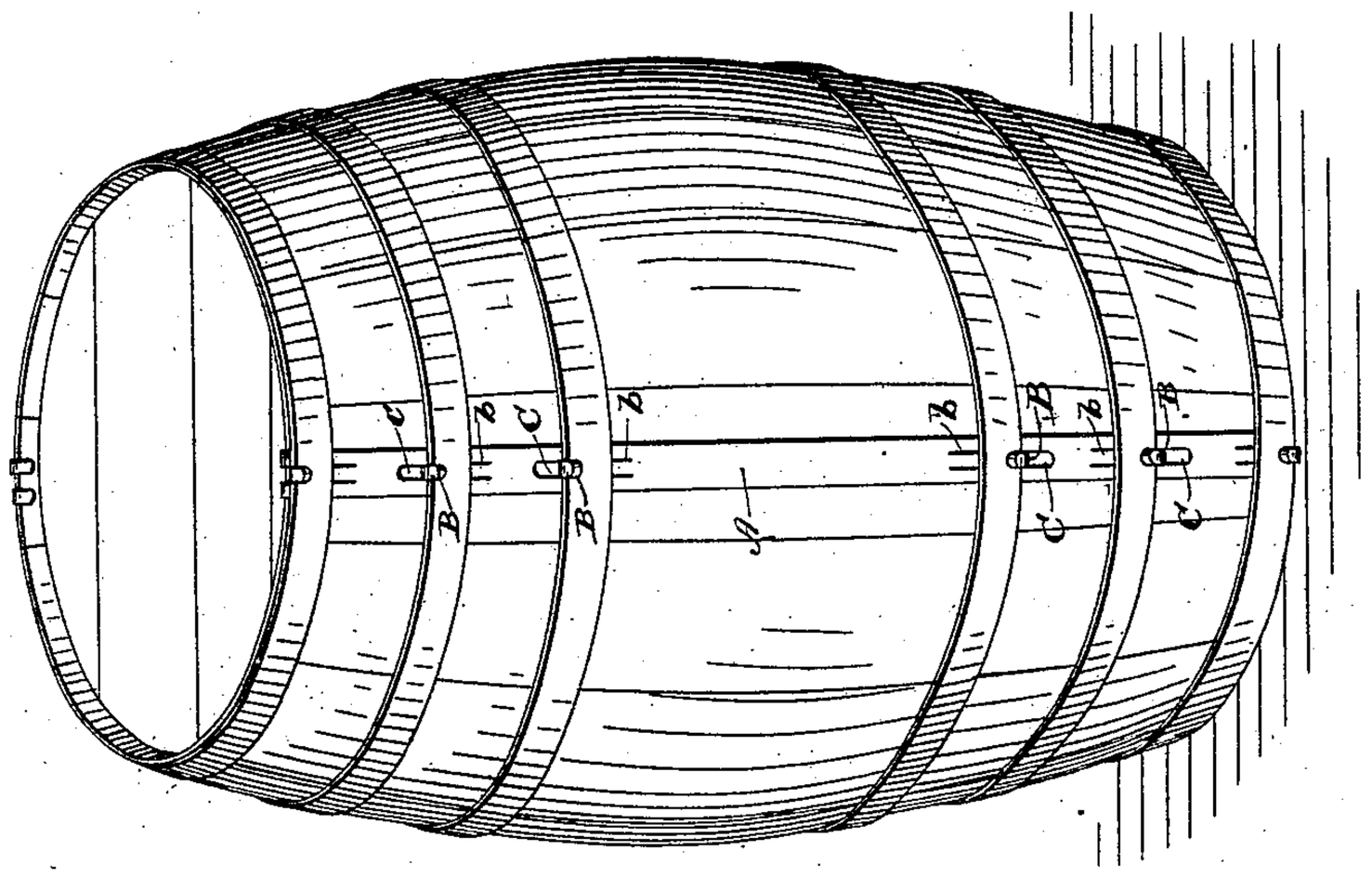


Fig. 2.

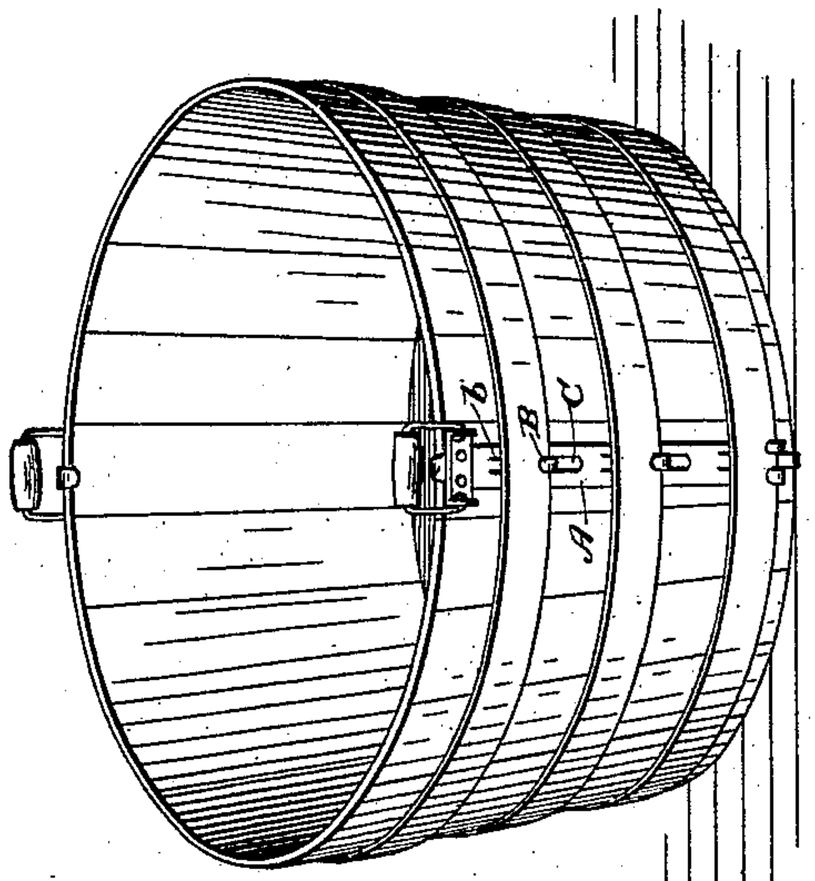
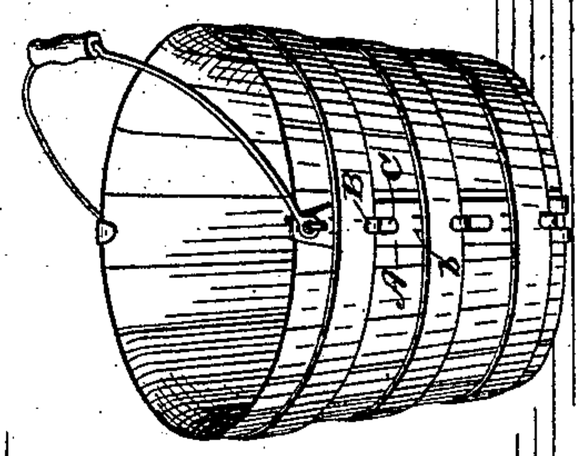


Fig. 3.



Witnesses.
Chas. R. Burr,
Thomas Durant

Inventor.
Claudius Verniaud,
by Church & Church
his Attorneys.

(No Model.) 2 Sheets—Sheet 2.

C. VERNIAUD.

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Fig. 6.

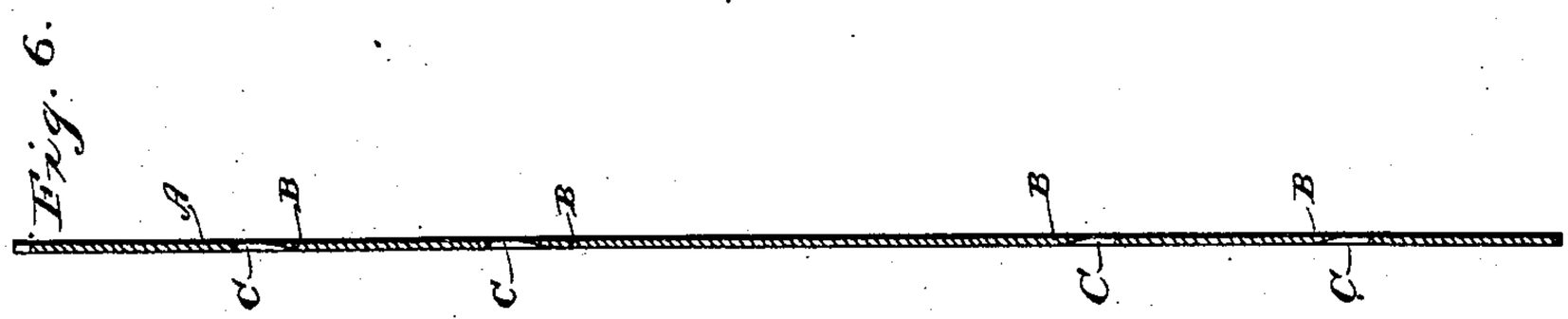


Fig. 7.

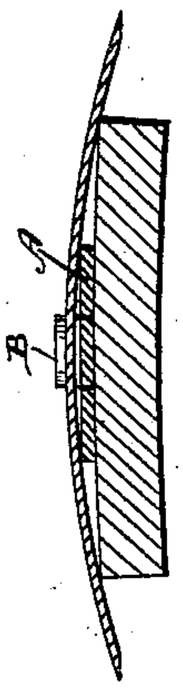
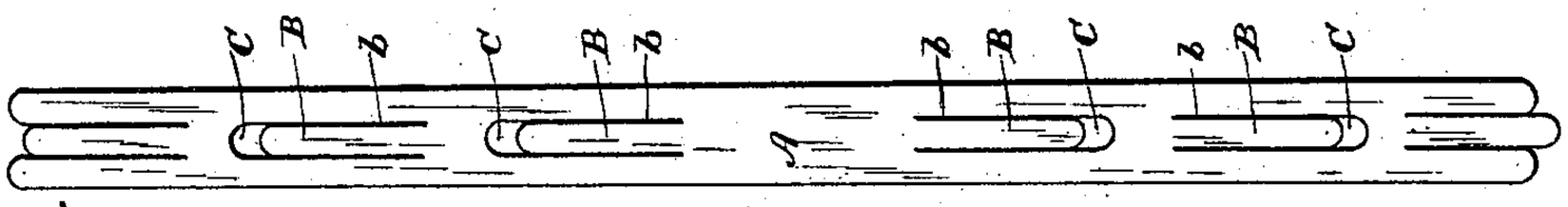


Fig. 5.

Fig. 4.



Witnesses.
Chas. R. Burr.
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UNITED STATES PATENT OFFICE.

CLAUDIUS VERNIAUD, OF QUINCY, ILLINOIS.

RETAINING DEVICE FOR BARREL-HOOPS.

SPECIFICATION forming part of Letters Patent No. 397,100, dated January 29, 1889.

Application filed July 23, 1888. Serial No. 280,748. (No model.)

To all whom it may concern:

Be it known that I, CLAUDIUS VERNIAUD, of Quincy, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Retaining Devices for Barrel-Hoops, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

Heretofore the various attemps to provide a means of holding the hoops on barrels, pails, tubs, and analogous articles constructed of staves have met with only partial success, owing to the very different conditions and difficulties to be met with and overcome caused by the shrinkage, expanding, and warpage of the wood or material from which the receptacle is constructed, as well as the rough usage to which the articles are subjected, together with the inadaptability of the retaining devices, rendering it necessary to employ special tools to apply them or else requiring the services of a skilled workman.

It is the object of my present invention to in a measure, if not entirely, overcome the defects and difficulties heretofore experienced and provide a retaining device readily and easily applied to the receptacle by any one competent to handle a hammer—one that may be rigidly secured to the receptacle and permit the hoops to be driven on over it, or which will permit the hoops to be set up and when applied to buckets or receptacles having handles will prevent the receptacle being pulled to pieces when dry or warped; to which ends the invention consists in a metal retaining device adapted to underlie the hoops and have portions of its central part formed into tongues which are bent up around the hoops to retain the same; and it further consists in certain other novel features of construction and combinations and arrangements of parts, whereby certain advantages are secured, all as will be hereinafter described, and pointed out particularly in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a perspective view of a barrel having my invention applied thereto. Figs. 2 and 3 are similar views, respectively, of a tub and bucket, showing the manner of applying the invention thereto. Figs. 4 and 5 are views, respectively, of the two forms of devices before application to the receptacles, the latter showing a modified form of tongue. Fig. 6 is a longitudinal sectional view of one of the devices. Fig. 7 is a transverse section through a hoop and retaining device.

Similar letters of reference in the several figures indicate the same parts.

In constructing my retaining devices I preferably make use of thin strips of sheet metal—such as iron—as the strain is mostly in the direction of the length of the strip, not tending to twist or distort it, and therefore such metal has been found amply strong and at the same time so flexible as to require no special tool to apply the device to the receptacle.

The strip A, of any desired width, has tongues B cut from its central part, preferably leaving both edges unbroken from end to end, for a purpose to presently appear. These tongues B are spaced approximately, so as to fall at the points where the hoops cross the strip, the cuts *b* at the ends of the tongues being, however, extended some distance to allow of more latitude in this respect. The end of the tongue is preferably round to prevent all liability of its catching in the clothing or injuring a person handling the receptacle or bending the tongue, as would be the case were the end left sharp.

In applying the device the strip is laid flat on the stave and the tongues bent out around the various hoops to retain them in place; and as some difficulty would be experienced in raising the tongues, owing to their central location, I form a space, C, at the end of each tongue, which will enable the end of the tongue to be readily bent up by inserting a pointed tool of any kind under the same; or, if desired, the under side of the tongue may be beveled or inclined to facilitate the operation, as shown in Figs. 1 and 6, which construction would have a further advantage in that the tongue when bent over flat on the hoop will present a more finished appearance and have no projecting corners at all.

When the device is applied to barrels and receptacles having one of the hoops adjacent

to the ends of the staves, the ends of the strips are divided into two or more tongues, (see Fig. 5,) but preferably three, as shown in Fig. 4, one of these tongues being bent around around the hoop and the others over the ends of the stave, or vice versa, the principal object in employing three tongues being to equalize the strain on the strip.

In case the strip is applied to a bucket or tub having a handle or bail, the ear for the bail is fastened a short distance from the end of the strip, and the end is then bent over the end of the stave, the top hoop in such instances being usually located some distance below the top of the receptacle.

In applying my holding device I preferably secure it rigidly to the staves by bending the ends or end tongues over the same before the receptacle is set up, placing such staves on opposite sides of the barrel, or, if more than two are employed, spacing them equally around the receptacle.

The class of receptacles to which this invention is particularly applicable are tapered from top to bottom, or in the case of a barrel from the center toward each end, and as the hoops are forced on over the outside of the staves and retaining devices they, being circular, will bear on the retaining devices with great pressure only along the edges, (see Fig. 7,) which in my device, it will be seen, present a smooth way along which the hoops may move without danger of engaging one of the tongues, the ends of which are removed from the edge. These tongues may, for convenience, be formed as in Fig. 5—that is to say, with the cut at one side extending to the edge of the strip, the end of the tongue, however, remaining removed from the edge, as before explained.

The strips, when constructed for application to barrels, of course have the tongues extending in opposite directions from the center.

From this description it will be seen that I have produced a hoop-retaining device of superior efficiency and adaptability, which may be readily and easily applied to the receptacle, and I am aware that, broadly stated, it is not new to form a retaining device of sheet metal with tongues cut therefrom to retain the hoops.

Having thus described my invention, what I claim as new is—

1. As an improved article of manufacture, a hoop-retaining device consisting of the metal strip having tongues cut therefrom to embrace the hoops when applied to the receptacle, the ends of said tongues being removed from the edges of the strip to prevent interference with the hoop as it is being applied, as set forth.

2. As an improved article of manufacture, a hoop-retaining device consisting of the metal strip having the tongues for embracing the hoops cut from the center thereof, leaving the edges of the strip unbroken, substantially as described.

3. As an improved article of manufacture, a hoop-retaining device consisting of the metal strip having tongues for embracing the hoops, the ends of said tongues being beveled or cut away on one side, as set forth.

4. As an improved article of manufacture, a hoop-retaining device consisting of the metal strip having tongues for embracing the hoops cut therefrom at points removed from the ends and the tongued end for embracing the end hoop and the end of the stave, substantially as described.

5. As an improved article of manufacture, a hoop-retaining device consisting of the metal strip having tongues for embracing the hoops cut therefrom at points removed from the ends and openings at the ends of such tongues for facilitating the raising of the ends of the tongues, substantially as described.

6. The combination, with the receptacle and the hoops for retaining the same in shape, of a hoop-retaining strip having the tongues engaging the hoops to hold them in position, the end of the strip being bent over the edge of the receptacle to hold the strip in position, substantially as described.

7. The combination, with the stave-receptacle and the hoops for retaining the staves in place, of the hoop-retaining strip rigidly secured to the stave and having the tongues cut therefrom for engaging the hoops, substantially as described.

8. The combination, with the stave-receptacle and the stave-retaining hoops, of the hoop-retaining strip having both ends bent over the ends of the stave, the intermediate tongues cut therefrom engaging the hoops, and the ear engaging the handle or bail secured to said strip at a point slightly removed from the end, substantially as described.

CLAUDIUS VERNIAUD.

Witnesses:
EZRA BEST,
PETER EMNEL.