

(No Model.)

W. HEISER.
BARREL.

No. 421,570.

Patented Feb. 18, 1890.

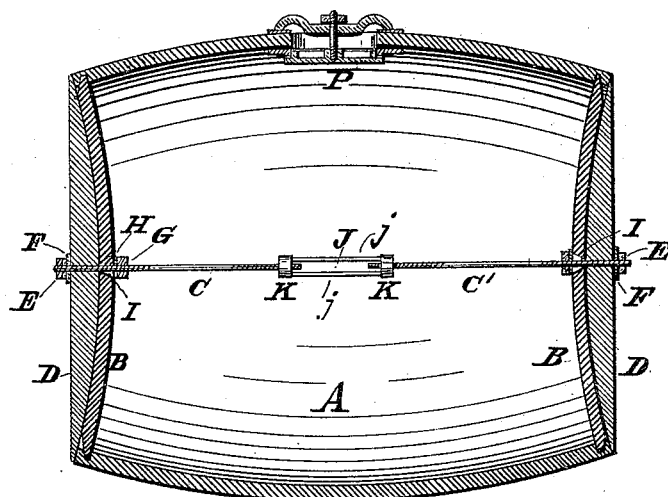


FIG. 1.

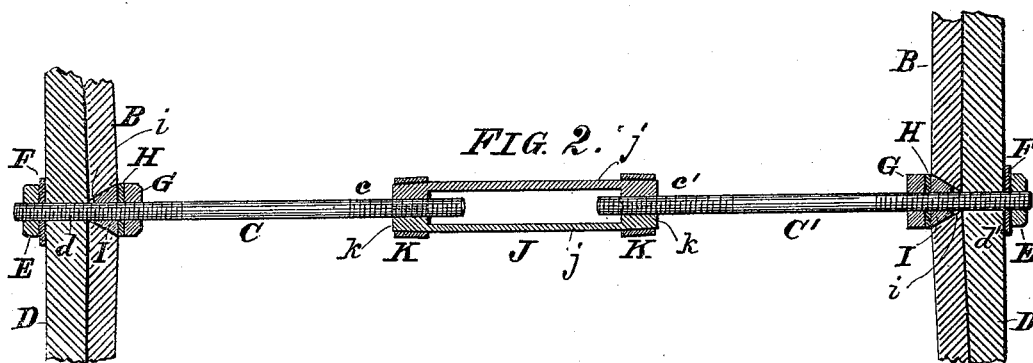


FIG. 3.

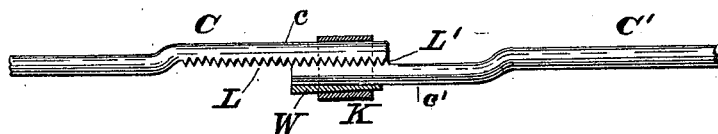
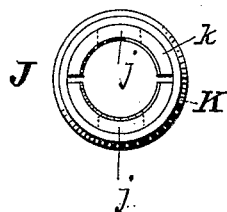


FIG. 4.



Witnesses:

Geo P. Stark
Ch. Stark

Inventor:

William Heiser
by Michael J. C. Wm. O. Stark
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM HEISER, OF BUFFALO, NEW YORK.

BARREL.

SPECIFICATION forming part of Letters Patent No. 421,570, dated February 18, 1890.

Application filed December 7, 1889. Serial No. 332,937. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HEISER, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Beer-Casks; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to improvements in beer-casks, hogsheds, and similar wooden vessels; and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claims.

In the drawings already mentioned, which serve to illustrate my said invention more fully, Figure 1 is a longitudinal sectional elevation of a beer-cask constructed in accordance with my said invention. Fig. 2 is a similar view of the tensioning device for the heads of said cask, drawn on a slightly-increased scale. Fig. 3 is a similar view of a modified form of my device. Fig. 4 is an end view of the divided coupling for this rod as illustrated in Figs. 1 and 2.

Like parts are designated by corresponding letters of reference in all the figures.

The object of this invention is the production of an improved fastening for the heads of beer-casks, hogsheds, and similar wooden vessels, which shall be capable of being inserted into and removed from said casks in a very short space of time, as will now be more fully explained.

In Letters Patent No. 337,401, granted to me on the 9th day of March, 1886, I have shown and claimed a cask having a central rod and fastening, whereby the heads may be expanded and locked in position. In this device the central rod is constructed in one piece, and though answering the purpose perfectly, is yet open to the criticism that it cannot well be manufactured in quantities at a time, because beer-casks of the same nominal size vary in length from a few inches to nearly a foot, so that some rods may be too long and project from the heads a distance that is

objectionable to the owners and manufacturers. It is, furthermore, found that the rods, when to be removed from the cask, cannot readily be withdrawn therefrom. To overcome these and other objections which it is not deemed necessary to here mention, I construct my device of two (more, if desired) pieces and join them by means of a fastening after the separate pieces have been properly inserted into the heads of the cask, and then proceed to expand the heads, thereby accomplishing the desired object in a cheap but very efficient manner.

A is the usual cask. It has heads B, of the well-known construction, provided with outside brace-timbers D, and a man-hole fitted with my patented or other improved man-hole cover P, through which access may be had to the interior of said cask by removing said cover.

C C' are the tie-rods, having each screw-threads on both ends at *c c' d d'*, respectively, the former *c c'* being fitted with nuts G on the inside of the cask and E outside of the brace-timbers, and the latter *d d'* engaging a coupling J, as illustrated in Figs. 1, 2, and 4. This coupling resembles the usual turn-buckle; but it differs therefrom, inasmuch as it is made of two similar longitudinal halves, as shown in Fig. 4, each half having a bar *j* uniting two semicircular end pieces *k*, so constructed that when the two halves are put together the end pieces will form tapering sockets, over which are placed taper sleeves K, which when driven onto said sockets will securely unite the two halves together.

In the heads B, I make the apertures *i* for the passage of the rods C C' conical, as shown in Fig. 2, and fit into these apertures conical plugs I, made from rubber or other suitable elastic material, and place these conical plugs upon said rods, washers H being interposed between the nuts G and the plugs I to avoid abrasion, there being also placed metallic plates F on the outside of the brace-timbers D underneath the nuts E for a similar purpose. It will now be observed that in dividing the central rod C into two portions I am enabled by removing the outside nuts E to insert these rods separately from the inside of the cask. I then replace these nuts and screw them (or

the nuts G, if desired) up tightly. Now I place the two halves of the coupling J upon the free ends of the said rods and secure the same rigidly together by locking them with the sleeves
 5 K. I now proceed to expand the heads, when the whole is completed in a very short space of time in a satisfactory manner, and may be removed at any time thereafter by proceeding in the reverse order of manipulations. It will
 10 will now be further observed that, owing to the introduction of the coupling J, which I prefer to make about one foot in length, I am capable of making the rods C C' fit the variations in the length of the casks, thereby
 15 enabling me to manufacture the entire fastening device in quantities and be sure of a proper fit.

It is perfectly evident that other coupling devices may be constructed to connect the inner ends of the rods C C', and in Fig. 3 I have shown one such fastening.

Instead of screw-threading the ends c c', I notch them at L and place over the ends a sleeve K, and lock the rods by a key W.
 25 Many other similar devices may, however, be produced without departing from the nature of my invention.

Having thus fully described my invention, I claim as new and desire to secure to me by
 30 Letters Patent of the United States—

1. As an improved article of manufacture, a wooden barrel consisting of the staves A, having the man-hole and cover P, the heads B B', the brace-timbers D on the outside of said heads, and an expansion-rod consisting
 35 of the pieces C C', having the nuts E on the

outside of said brace-timbers, and the expanding nuts G, with underlying packing H on the inside of said heads, said rods being jointed within the barrel by a suitable fastening, as
 40 and for the object set forth.

2. In beer-casks and similar wooden vessels, the combination, with the heads and brace-timbers, of a brace-rod having conical elastic plugs fitting the conical apertures in
 45 said heads, and locking-nuts within and without said heads, as and for the object set forth.

3. In beer-casks and similar vessels, the combination, with the heads, of a divided brace rod having fastenings on its outer ends
 50 and a coupling on its inner ends, said coupling consisting of a divided turn-buckle having locking-sleeves fitting sockets on said turn-buckle, as described.

4. In beer-casks and similar vessels, the
 55 combination, with the heads, of the divided brace-rod having locking-nuts and washers on its outer end and tapering elastic plugs fitting similar openings in said heads, and a coupling uniting the inner ends, said coupling
 60 consisting of a divided turn-buckle having locking mechanism by which the rods may be rigidly secured together upon their inner ends, as and for the purpose set forth.

In testimony that I claim the foregoing as
 65 my invention I have hereto set my hand in the presence of two subscribing witnesses.

WM. HEISER.

Attest:

MICHAEL J. STARK,
 WM. O. STARK.