S. A. BENNETT.

PROTECTING RING FOR BARRELS.

APPLICATION FILED DEC. 16, 1918.

1,303,153. Patented May 6, 1919.

Fig. 1.

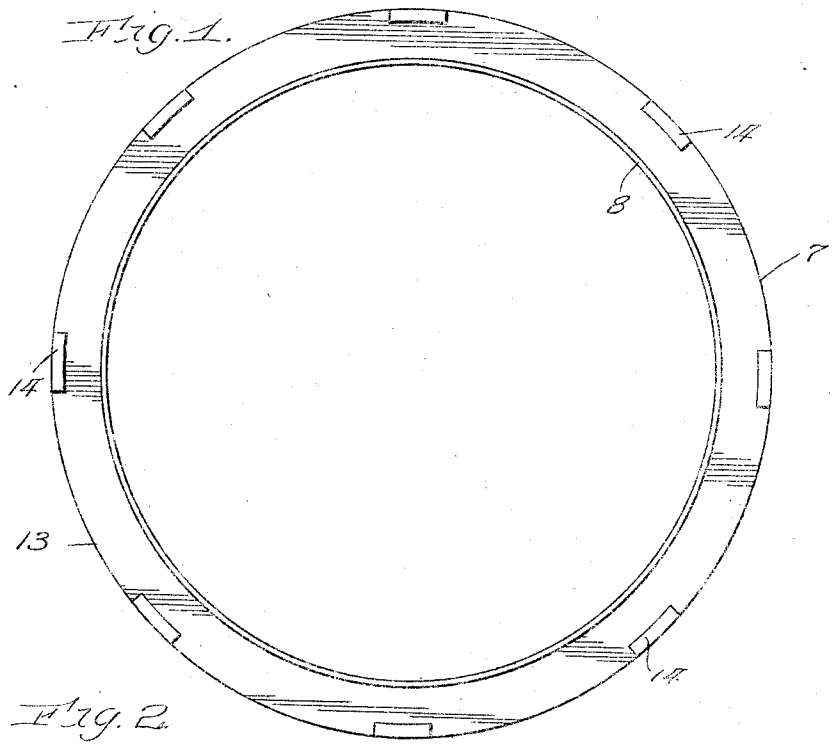


Fig. 2.

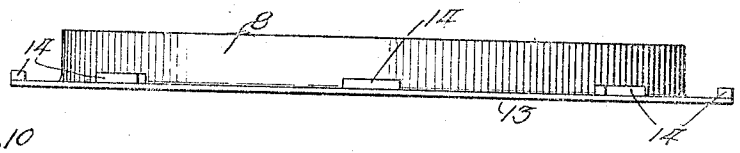


Fig. 3.

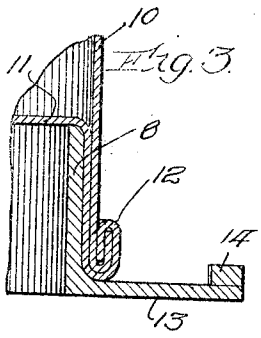


Fig. 4.

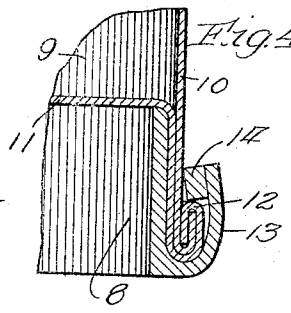


Fig. 5.

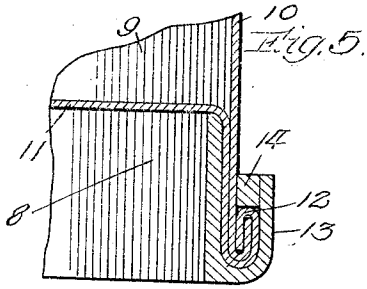
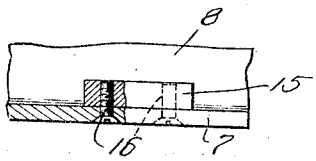


Fig. 6.



Witness:

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UNITED STATES PATENT OFFICE.

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PROTECTING-RING FOR BARRELS.

1,303,153. Specification of Letters Patent. **Patented May 6, 1919.**

Application filed December 16, 1918. Serial No. 266,889.

To all whom it may concern:

Be it known that I, STEVENS A. BENNETT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Protecting-Rings for Barrels, of which the following is a specification.

Metal barrels, casks, or drums, in which the heads are formed separately from the bodies, have long been used for commercial purposes, and various methods of attaching the heads to the bodies have been utilized. One of the most common and serviceable methods consists in forming a double-locked joint between the edges of the head and body portions, as will be readily understood by those familiar with these constructions. Steel barrels made in this manner have proven serviceable, but when they are subjected to rough usage, the ends or chimes are apt to become broken or bent, with the consequent tendency to open the seams in the joint and cause the barrel to leak.

The present invention relates to a device for reinforcing the ends of metallic barrels, drums, or the like, such device also serving to furnish a hand-hold or finger-grip so that the barrels may be more readily handled.

The objects of this invention are, to provide a novel arrangement for protecting the ends of steel barrels, and more particularly to protect the joint or seam around the end thereof; to provide a device of this character which may be applied without tending to open or disarrange the seam previously formed between the head and body; to provide such a protecting device which may be removed for the purpose of repairing the barrel; to provide a novel method of applying such protecting ring; and, in general, to provide the improved structure and method of applying the same which will be described more fully hereinafter.

In the accompanying drawings illustrating this invention:

Figure 1 is a plan view of a preferred form of ring which is used for making the protecting device;

Fig. 2 is a side view of the same;

Fig. 3 is an enlarged detail, showing the ring in position in the end of a barrel and ready to be applied thereto;

Fig. 4 is a similar detail, showing the next step in the process of forming the device;

Fig. 5 is a similar detail, showing the completed section; and

Fig. 6 is a detail showing a modified form of construction.

A ring 7, which is preferably made of angle iron, as shown in Figs. 1 and 2, has one flange 8 formed to fit closely within the end of the barrel 9, as shown in Fig. 3. The length of this flange is preferably such that the inner edge thereof will rest against the barrel head before the outwardly projecting flange comes in close contact with, or presses against, the seam or end of the barrel. This barrel is formed of a body portion 10 and heads 11, which are united to form a double-locked seam, or fastened together in any other well known similar manner so as to form an annular projection around the end of the barrel.

The outwardly extending flange 13 of the ring 7 is provided with a plurality of lugs or projections 14 which may be formed integrally therewith, or may be secured thereto in any desired manner, as, for instance, by spot welding. The thickness of the lugs or projections 14 is preferably about the same, or slightly greater than the thickness of the projecting portion of the seam 12.

After the ring has been applied as shown in Fig. 3, the flange 13 is then rolled inwardly, or toward the body portion, until the projections 14 engage with the sides of the body, as indicated in Fig. 4. The ring then is subjected to the action of a straight roll, which is arranged substantially parallel with the sides of the body so as to straighten the flange 13 to the position shown in Fig. 5, which completes the application of the ring to the barrel or drum.

By having the projections 14 approximately as thick as, or a little thicker than, the projecting portion of the seam 12, there will be little or no tendency toward rolling the flange against the seam, so as to open it up or injure it in any manner. In fact, it is preferable to have the ring or protecting member 7 applied so that it will be substantially free, although not loose enough to move or rattle.

During the applying operations, it will be readily apparent from Figs. 4 and 5 that the pressure will be applied through the action of the lugs 14 at points above the seams, instead of against the seams. It will be noted that the lugs or projections 14 may

be made as long as may be desired, or in some instances a complete ring may be applied. However, I prefer to have these projections spaced apart, so as to leave a clearance between the edge of the flange 13 and the barrel so that the protecting ring furnishes a convenient handhold for the end of the barrel.

In some instances it may be desirable to remove the protecting ring, as it sometimes occurs that the barrels will leak and it becomes necessary to weld the seams entirely around the end of the barrel. In order to do this, the projections 14 would have to be cut away or bent back, but removable projections may be used, such as the lugs 15 shown in Fig. 6. These lugs are attached to the flange by means of screws 16, so that they may be readily removed for the purpose of taking off the protecting ring.

From the above description, it will be seen that I provide a novel protecting device for the chime or end of a barrel, which will tend to protect the seam against injury, and which may be applied without compressing or otherwise injuring the seam. This device will also have the further advantages more particularly set forth, and it will be observed that various changes may be made in the details of construction and arrangement of the parts without departing from this invention, and therefore I do not wish to limit myself to the exact construction or method herein shown and described.

What I claim is:

1. The combination with a barrel having an outwardly projecting seam at the end thereof, of a protecting ring having an inner flange fitting within the end of the barrel, and an outer flange encompassing the seam and extending above the same, said outer flange being provided with projections extending inwardly over the projecting portion of the seam and engaging with the sides of the barrel.

2. A protecting ring for the end of a barrel having a double-locked seam, comprising an inner flange adapted to fit within the end of the barrel, and an outer flange bent to inclose the seam, said outer flange having a plurality of projections extending inwardly above the seam.

3. A ring for reinforcing barrels, comprising an annular portion adapted to fit within the end of the barrel, and an outwardly extending flange, said flange being provided at its outer edge with a plurality of projections adapted to engage with the sides of the barrel when the flange is bent to engaging position.

4. The combination with a barrel having a projecting locking seam between the head and body, of a U-shaped protecting ring adapted to fit over the end of the barrel, said ring being provided with one or more removable lugs for engagement with the seam to hold the ring in position.

STEVENS A. BENNETT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."