

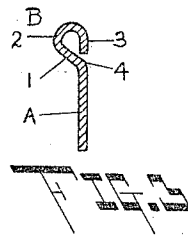
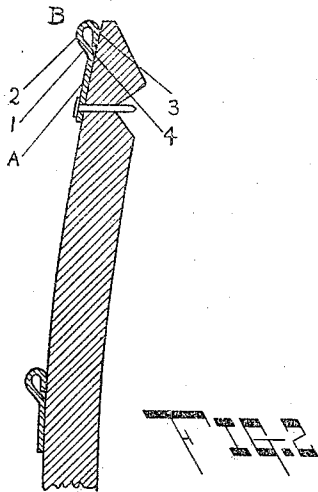
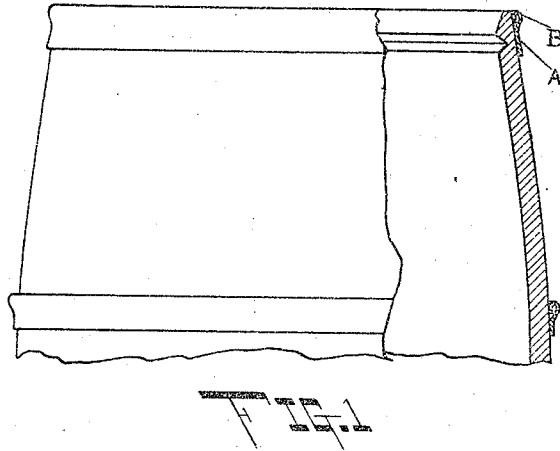
J. E. WRIGHT.

METAL HOOP.

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972,973.

Patented Oct. 18, 1910.



WITNESSES:

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METAL HOOP.

972,973.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES E. WRIGHT, a citizen of the United States, residing at Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Metal Hoops; and I do hereby 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 appertains to make and use the same.

My invention relates to metal hoops and more particularly to the beads on such hoops, which beads serve as driving edges, against which the driving tools are placed.

One object is the provision of a hoop having a concealed edge to prevent injury to the hands of persons handling the barrels and to prevent marring floors or skids.

Another object is the provision of a hoop having an unexposed edge, the hoop affording a full surface bearing for the staves to strengthen the barrel structure.

Another object is the provision of a hoop having a resilient bead, the free edge of the bead being concealed.

A further object is the provision of a hoop having a bead whose free edge is concealed, the bead being arched in such manner as to prevent its breaking down under pressure as from the driving tool.

To these ends, my invention consists in certain novel features and combinations of parts, such as will be more fully described hereinafter and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a barrel or keg equipped with my invention; Fig. 2 is an enlarged cross-sectional view showing the bearing of the hoop against a stave; and Fig. 3 is a detail cross-sectional view through the hoop alone.

My invention consists in the combination with a hoop, of a hollow bead having an outwardly-bulging face and a concealed depending lip connected to the bead and extending across the space between the longitudinal edges of the bead, the lip lying preferably though not necessarily in a plane with the hoop band. This lip affords a bearing surface for the staves in addition to the bearing afforded by the hoop band. It also resists the tendency of the driving pressure to crush the bead. Such resistance is

accomplished by the friction between the lip and staves and because the bead is yielding or resilient, whereby the free end of the lip may engage a shoulder formed by the juncture of the hoop band with the outwardly bulging bead. The lip is also capable of lateral movement into the bead as well. The arch of the bead is scientifically formed to resist the crushing strain of the driving pressure. To this end the bulge of the bead does not project away from the band at approximate right angles, but extends at a greater angle than 90 degrees, so that the driving pressure on the bead is transmitted to the band without tending to bend the bead over outwardly at its juncture with the band.

(A) indicates the hoop band and (B) the bead. This bead is formed by slanting the upper edge of the hoop material outwardly preferably at an angle greater than a right-angle, as at (1). The slanted portion merges into a curve or arc (2), extending toward the plane of the band. The arc terminates in a depending lip (3) lying preferably though not necessarily in the same plane with the band (A), the free edge of the depending lip lying adjacent to but normally out of engagement with a shoulder (4) formed at the juncture of the band with the bead. The lip extends across the space between the longitudinal edges of the arched bead. The depending lip lies behind and is concealed by the outward bulge of the bead. The free edge of the lip is thus protected and can not injure the floors or skids on which the barrels or kegs are rolled, nor can it wound the hands of those handling barrels and kegs equipped with my invention. It will be observed that the lip and band both engage the staves of a keg or barrel and combine to form a broad bearing surface for the staves. A hoop having a broad bearing surface holds the staves together and forms a strong barrel.

In former hoops of the same type as mine, the space between the longitudinal edges of the bead is left open and no bearing is afforded the staves at that point, also such former beads will spread out when under severe strain or pressure. By turning the lip down behind the outwardly projecting face of the bead, I prevent the bead from opening out and releasing the edge of the lip when the barrel is rolled or subjected to

hard usage. The bead is somewhat resilient, whereby in driving, the hoop and bead are capable of flexure and accommodate themselves to the shape of the barrel or keg.

5 Furthermore, in rolling barrels or kegs equipped with my invention, the resilience or springiness of the bead relieves the hoop of strain and prevents crushing the bead or opening it out.

10 The combination in the bead, of the arched exterior with the concealed lip constitutes a strong construction which will withstand heavy driving pressure, as well as strains and shocks. By connecting the bead and band at an angle to each other greater
15 than a right-angle the driving pressure can not break down or bend the bead relative to the band.

When heavy driving pressure is employed
20 to set the hoop on the barrel, the free depending edge of the lip may engage the shoulder formed at the juncture of the bead and band to resist the crushing effect of such pressure. This movement of the lip is due
25 to the resilience of the bead. The lip can not slip past the shoulder and down between the band and staves owing to the snug fit of the inner surface of the band against the keg or barrel and also because the free
30 edge of the lip is capable of yielding laterally into the space inclosed by the bead.

It will be noted that the bulge of the bead

is all outside the plane of the inner face of the band and hence the hoop can lie flat against the staves at all points throughout
35 its width.

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

1. A hoop comprising an annular band having an outwardly bulging yielding bead
40 formed along one longitudinal edge, a shoulder formed at the junction of the band and bead, the free edge of the bead forming a lip on one side of the bead adjacent the barrel, said free edge lying adjacent and
45 adapted under heavy pressure to contact with said shoulder.

2. A hoop comprising an annular band, an outwardly bulging yielding bead formed along one longitudinal edge thereof, one
50 edge of the bead being connected to the band and forming a shoulder at that point, and a lip connected to the opposite edge of the bead and extending behind the bead on that side adjacent the barrel, the free edge of the
55 lip lying adjacent and adapted under heavy pressure to contact with the shoulder.

In testimony whereof, I affix my signature in presence of two witnesses.

JAMES E. WRIGHT.

Witnesses:

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