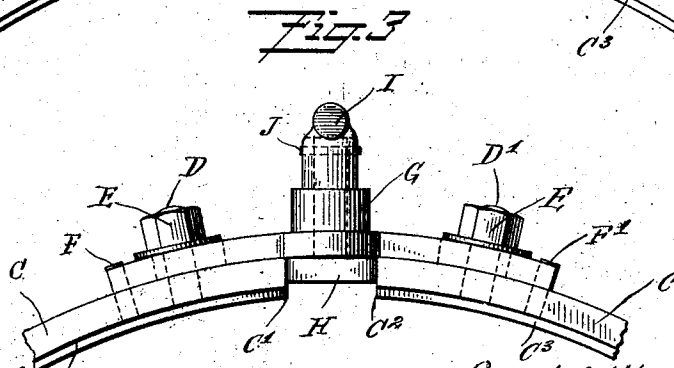
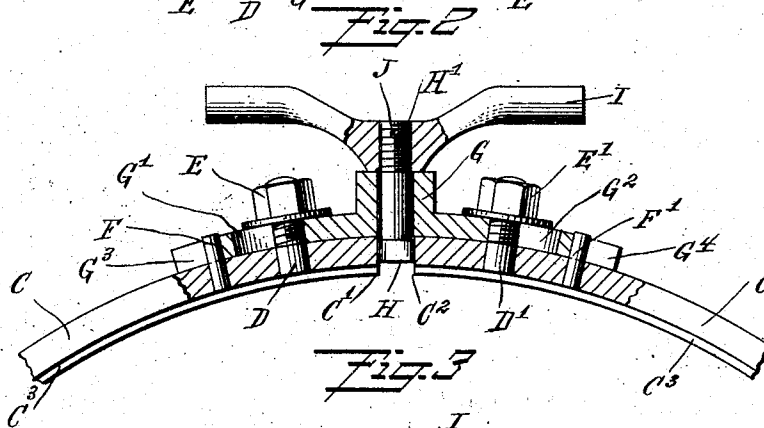
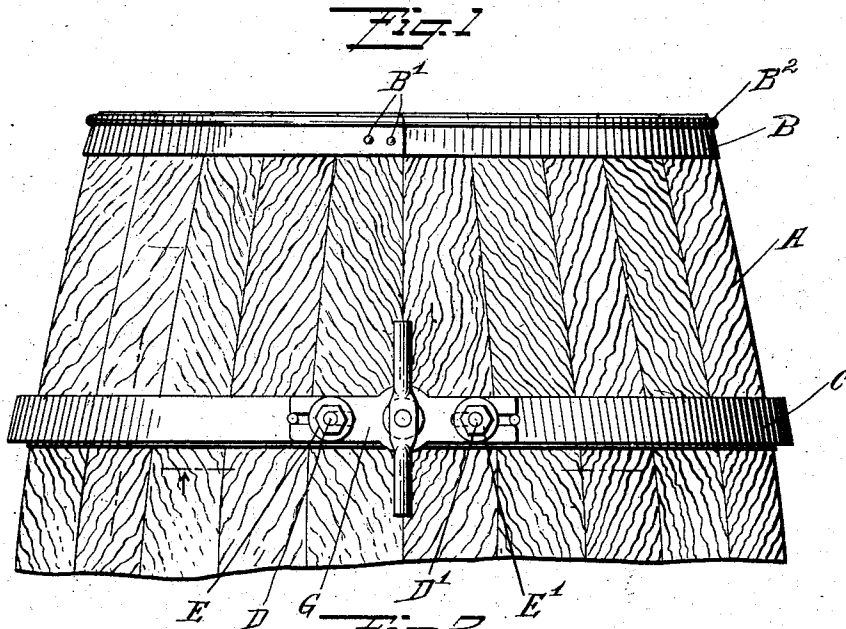


E. C. THORSCHMIDT.
TOOL.
APPLICATION FILED DEC. 16, 1909.

973,725.

Patented Oct. 25, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

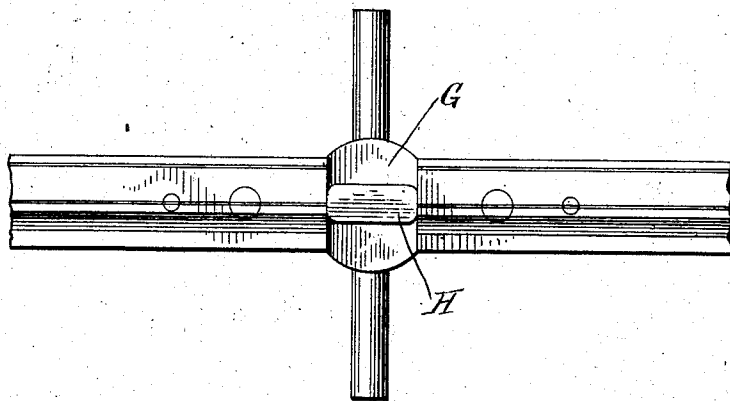


Fig. 4

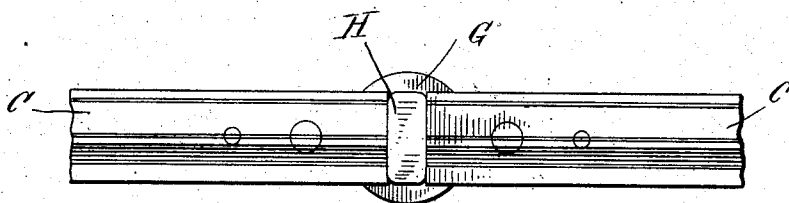


Fig. 5

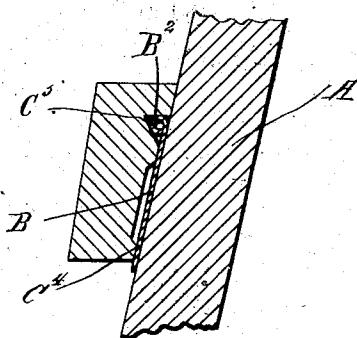


Fig. 6

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TOOL.

973,725.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed December 15, 1909. Serial No. 533,153.

To all whom it may concern:

Be it known that I, ERNEST C. THORSCHMIDT, a citizen of the United States, and a resident of New York city, in the county of Kings and State of New York, have invented certain new and useful Improvements in Tools, of which the following is a specification.

My invention relates to an appliance for use in placing metal barrel hoops on barrels and similar receptacles.

The object of my invention is to provide a device which will hold the hoop and which may be adjusted to fit hoops of differing diameters within a predetermined degree.

Referring to the drawings which form a part of this specification: Figure 1 is a view of the upper end of a barrel provided with a metal hoop at its top and a second metal hoop located around its body and embraced by my improved device. Fig. 2 is a view showing a ring in section, illustrating the means used for increasing the diameter of the device and for locking the device to the hoop. Fig. 3 is a view of the same part of the device showing the locking device adjusted to hold the ring portion in its position of greatest diameter. Fig. 4 is a view of the inner portion of the ring showing the locking device holding the ring in its position of greatest diameter. Fig. 5 is a similar view, showing the view of the ring in its position of least diameter. Fig. 6 is a vertical sectional view through a portion of a barrel stave and a cross-sectional view through a portion of the ring and barrel hoop.

A indicates a portion of a barrel made in the usual manner by assembling a plurality of staves together and holding them by hoops.

B indicates a hoop formed of sheet metal the ends of which are over-lapped and secured by rivets B'. The hoop is provided with a beaded upper edge B² formed by turning the edge in the form of a circle when viewed in cross section as illustrated in Fig. 6. The body portion of the hoop is formed so that the distance around its lower edge is of greater diameter than the distance of its upper edge, to provide for the hoop fitting the surface of the barrel, the diameter of which increases as it approaches the middle.

C indicates a heavy ring preferably formed of wrought iron or similar suitable

spring material. The ring is first formed in a single piece with its ends C' and C² abutting each other and its inner surface formed by turning to conform to the shape of the hoop and substantially as illustrated in Fig. 6 and a groove C³ is formed circumferentially in the ring to permit the ring to embrace the bead B² of the hoop B, and the lower end of the ring C to contact with the hoop as illustrated at C⁴ in Fig. 6. Connected rigidly to the ring C, are stud bolts D and D' the upper ends of which are threaded to permit flanged nuts E and E' to screw thereon. Also connected to the ring C are pins F and F'.

G indicates a plate, which is movable relative to the ring C and its under-surface conforms to the curve of ring C, and is provided with slots G' and G² which serve as guides through which the stud bolts D and D' project. The plate G is also provided with slots G³ and G⁴ in which the pins F and F' project. The nuts E and E' are screwed down until their end surfaces rest in loose contact with the upper surface of the plate G, so that the plate G may slide on the ring C relative thereto the distance that the length of the slots G' and G² permit. The pins F and F' prevent the ends of the ring C from turning on the studs D or D' as a pivot and serve to hold the plate G and ring C in circumferential alinement.

H indicates a bolt the lower end of which is formed rectangular in shape as illustrated in Figs. 4 and 5 and forming a head for said bolt which has a greater length than width. The bolt H is provided with a thread H' at its upper end and a handle I is screwed on said thread and held firmly in position by a pin J. The spring action of the ring C is sufficient to hold the ends C' and C² in contact so that when the bolt H is inserted between said ends it is gripped thereby. By turning the handle I at right angles to the ring C as illustrated in Figs. 3 and 4 the head of the bolt H acts as a cam to force the ends of the ring C apart against the spring action of said ring. The hoop B is then inserted in the ring and the handle I turned in the position illustrated in Fig. 2, when the ring C contracts and embraces the bead B² of the hoop B. The hoop and ring are then placed on the barrel and by dropping the lower ends of the staves forcibly in contact with the floor the weight of the ring C forces the hoop firmly on the

barrel due to the power stored in the ring by the movement of the barrel assisted by gravity as will be readily understood. When the hoop is firmly in position on the barrel the handle of the locking device is turned at right angles to the ring thus forcing the ends of said ring apart, which permits the ring C being lifted free of the hoop as will be readily understood.

It is obvious from the foregoing that hoops may be applied by this device which differ in diameter within the scope provided for by the cam H.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:—

1. A portable hoop-driving tool comprising a resilient ring adapted to engage a barrel hoop and a plate connecting the ends of said ring in sliding relation thereto and a manually operated cam located between the ends of said ring and adapted to force the said ends apart a predetermined distance.

2. A portable hoop-driving tool comprising a ring formed of spring metal and provided with a groove on its inner periphery adapted to engage the beaded edge of a metal barrel hoop, stud bolts extending through the ends of said ring, a plate held to said ring, by said bolts, and a manually operated cam-headed bolt connected to said plate and having its cam shaped end located between the ends of said ring and adapted to force the ends apart a predetermined distance.

3. A portable hoop-driving tool comprising a resilient ring having a groove on its inner periphery adapted to engage the beaded

ed end of a metal barrel hoop, and means for separating the ends of said ring to increase its diameter, said ring acting by reason of its resiliency to lock itself to a barrel hoop of the character described.

4. A portable hoop-driving ring recessed on its inner periphery to receive a barrel hoop and to provide a flange for driving said hoop divided at one point but tending by its own resilience to maintain the ends in contact and a rotary cam inserted between and directly engaging said ends to expand the ring.

5. A portable hoop-driving tool comprising a resilient ring having a groove on its inner periphery adapted to engage the beaded end of a metal barrel hoop, and a plate held to said ring in movable relation thereto and carrying a cam by means of which the ends of said ring may be separated a predetermined distance.

6. A portable hoop-driving tool comprising a resilient ring having a groove on its inner periphery adapted to engage the beaded end of a metal barrel hoop, a plate held to said ring in movable relation thereto and carrying a cam by means of which the ends of said ring may be separated a predetermined distance, and means for guiding the plate in alinement with the circumference of the ring.

Signed at New York city in the county of New York and State of New York this 13th day of December A. D. 1909.

ERNEST C. THORSCHMIDT.

Witnesses:

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