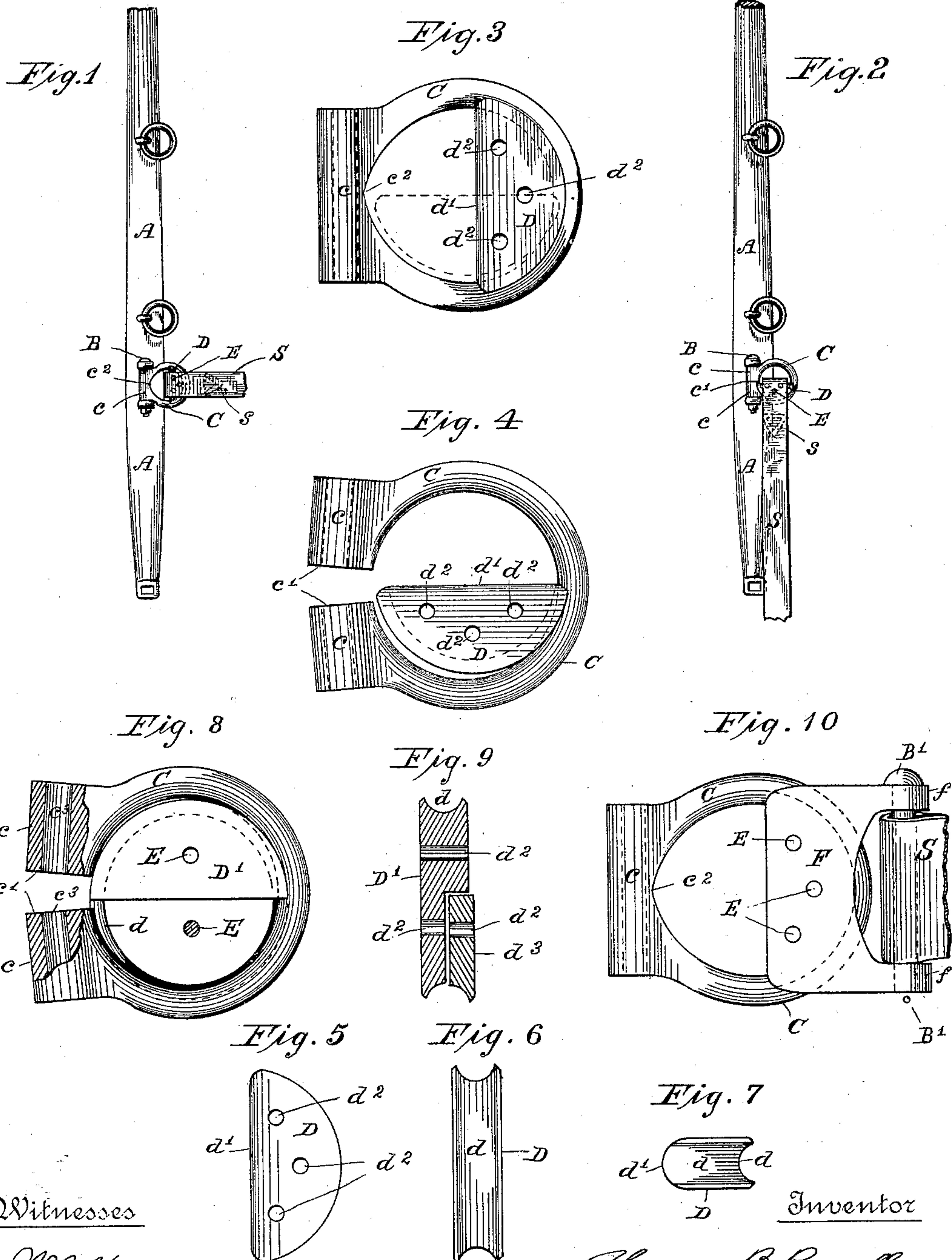


(No Model.)

A. B. ROWELL.
HAME ATTACHMENT.

No. 409,505.

Patented Aug. 20, 1889.



Witnesses

M. B. Howe.
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UNITED STATES PATENT OFFICE.

ALMON B. ROWELL, OF SUNAPEE, NEW HAMPSHIRE, ASSIGNOR TO BART-
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HAME ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 409,505, dated August 20, 1889.

Application filed May 6, 1889. Serial No. 309,827. (No model.)

To all whom it may concern:

Be it known that I, ALMON B. ROWELL, a citizen of the United States, residing at Sunapee, in the county of Sullivan and State of New Hampshire, have invented certain new and useful Improved Attachments for Hames, of which the following is a specification.

This invention relates to tug-fastenings for hames, the object of the invention being to provide a fastening which will enable a tug to pull straight or at any desired angle or to assume a position parallel with a hame—as when thrown over the neck of a horse or hanging down—thus allowing the tug to assume various positions without twisting, which cracks the leather and soon uses them up.

The invention will be readily understood by reference to the accompanying drawings, which form an inseparable part of the following specification and claims, of which—

Figure 1 represents a broken elevation of a hame supplied with my improved fastening and a portion of a tug attached thereto, Fig. 2 being a similar view of the same parts, in which the tug is hanging in a position parallel with the hame. Fig. 3 is a detached elevation of my invention as when formed in two parts—one for connection with a tug and the other with a hame. Fig. 4 represents the same parts in slightly-modified form. Fig. 5 is a detached side view of that portion of my invention to which the end of a tug is connected. Fig. 6 is an edge view of the same part, Fig. 7 being a plan of the same part. Fig. 8 is another modification of my improvements, (showing a portion of a tug in dotted lines,) in which the part to which a tug is connected is made in two pieces. Fig. 9 is a vertical section of that modification of my invention shown in Fig. 8. Fig. 10 represents another modification of that part of my invention to which a tug is connected when made in two pieces.

Similar reference-letters designate corresponding parts throughout the various views.

Upon the common start-bolt B of a hame A, I mount a ring C by means of a perforated projection c, formed integral therewith. This ring may be composed of brass, cast-iron, or

forged, as desired, and the said ring may be formed whole, as seen in Figs. 1 and 3, or divided through said perforated projection, as at c', Figs. 2, 4, and 8, for a purpose to be hereinafter explained. I provide a swiveled connection for the tug S and said ring C, to which one end of a tug may be riveted or otherwise attached, as hereinafter specified. This may consist of a segment of a circle D, the arc of which is grooved, as at d, Figs. 6 and 7, to fit the interior of the ring C, the chord or plane d', which unites the extremities of the arc, being convexed or rounded, as seen best in Fig. 7, and over this chord d' is bent one end of a tug S, the said segment D being secured within the double or bent end of said tug by one or more rivets E, passing through one or more perforations d², formed for this purpose in said segment D. If desired, the bent end of said tug may extend back of said segment far enough to permit of stitching it down to the tug, as at s, Figs. 1 and 2. In order to introduce the said segment to the interior of said ring, the inner diameter of the latter may be slightly enlarged or formed conoidal (c²) at a point near the perforated projection, as seen in Figs. 1, 3, and 10, and by turning said segment, as seen by dotted lines in Fig. 3, it may be readily entered; or the interior of said ring may be formed on a true circle, and by being divided, as at c', Figs. 2, 4, and 8, the said ring may be spread open for the admission of said segmental swivel-piece D, and again closed, and so maintained permanently so long as it is confined between the ears on the hame by the start-bolt B or a staple. The swivel-piece may also be made circular and divided in two equal parts—i. e., cut through the smallest diameter of the annular groove formed in its periphery—or the said piece may be formed circular, as seen at D', Figs. 8 and 9, in which a portion of one side is made detachable, as seen at d³, Fig. 9, the tug S being attached by means of rivets E, passing through perforations d².

If preferable, a tug-attaching piece F, Fig. 10, having two perforated ears f, may be riveted to either style of swivel-piece D D' by rivets E, and the bent or loop end of a tug S,

by insertion between said ears *f*, be secured therein by a tug-bolt *B'* with equally as good results, but at slightly additional expense.

The perforation *c*³ of the projection *c* is shown in section in Fig. 8.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a hame attachment, a tug-connection comprising a circular ring, a portion of its interior being conoidal and provided with a perforated projection adapted to receive a start-bolt or staple, and a swivel-piece formed in a segment of a circle, having its arc portion grooved to fit the interior of said circular ring and provided with one or more perforations for receiving rivets by which the tug may be attached.

2. In a hame attachment, a tug-connection comprising a circular ring, a portion of its interior being conoidal and provided with a perforated projection adapted to receive a start-bolt or staple, and a swivel-piece to which a tug is attached, consisting of a segmental circle having its arc portion grooved to fit the interior of said circular ring and having its chord or plane convexed or rounded, all substantially for the purpose set forth.

3. In a hame attachment, a tug-connection comprising a circular ring provided with a

perforated slotted projection adapted to receive a start-bolt or staple, and an interior perforated swivel-piece formed in a segmental circle, having its arc portion grooved to fit the interior of said circular ring and its chord or plane convexed or rounded, all substantially for the purpose specified.

4. In a hame attachment, a tug-connection comprising a circular ring provided with a perforated slotted projection adapted to receive a start-bolt or staple, and a circular swivel-piece formed in two parts, having its periphery grooved to fit the interior of said circular ring and having one or more perforations for attaching a tug.

5. In a hame attachment, a tug-connection consisting of a circular ring having a perforated projection for connection with a start-bolt or staple, a swivel-piece fitting the interior of said ring, and a tug attachment rigidly secured to said swivel-piece by rivets or their equivalents, all substantially for the purpose set forth.

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

A. B. ROWELL.

Witnesses:

C. F. BROWNE,

I. G. ROWELL.