

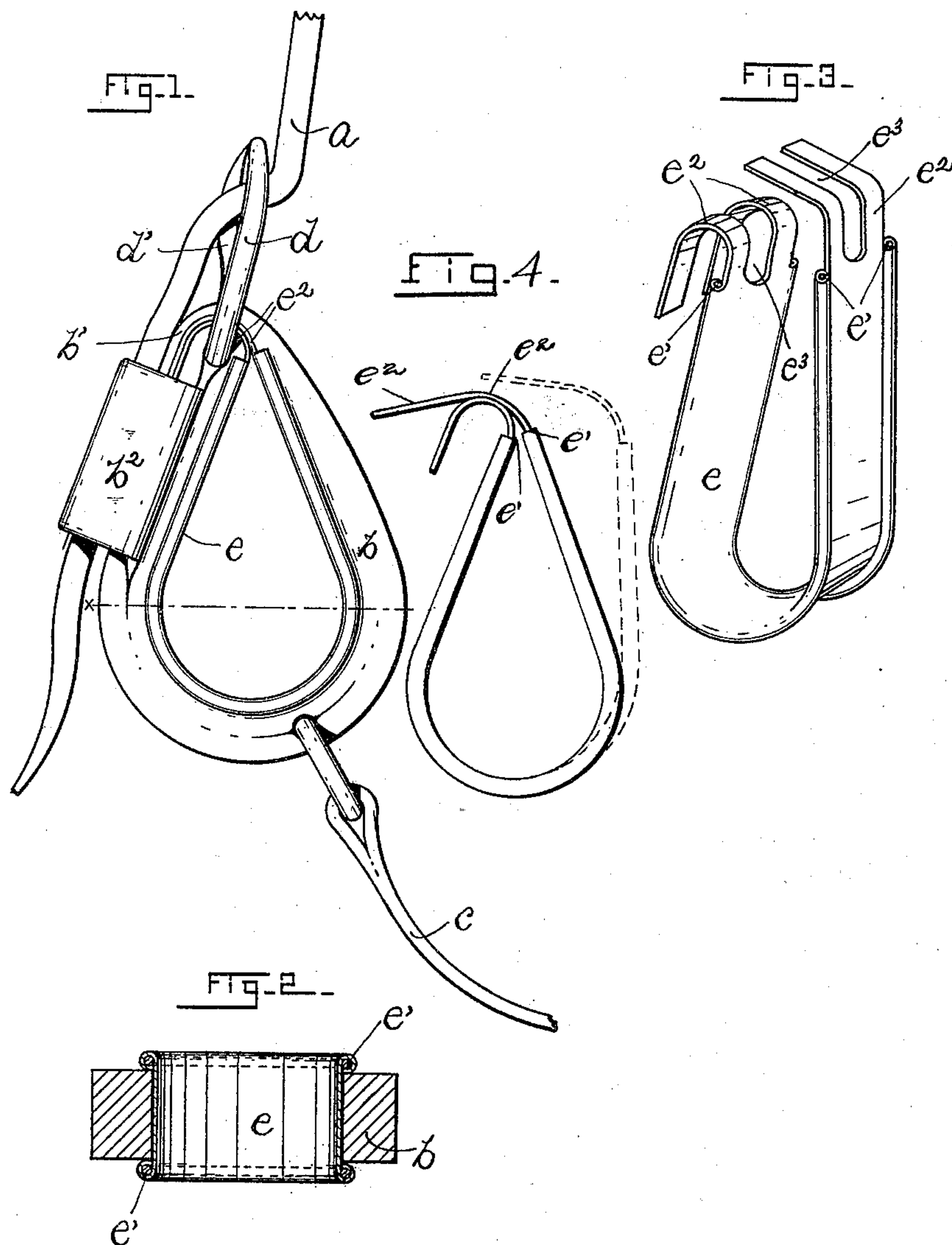
No. 635,022.

Patented Oct. 17, 1899.

J. N. PHILLIPS.
BUSHING FOR HARNESS LOOPS.

(Application filed Apr. 4, 1898.)

(No Model.)



WITNESSES

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JOSEPH N. PHILLIPS, OF NORWICH, CONNECTICUT.

BUSHING FOR HARNESS-LOOPS.

SPECIFICATION forming part of Letters Patent No. 635,022, dated October 17, 1899.

Application filed April 4, 1898. Serial No. 676,370. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH N. PHILLIPS, a citizen of the United States, residing at Norwich, New London county, Connecticut, have
5 invented certain new and useful Improvements in Bushings for Harness-Loops, of which the following is a full, clear, and exact description.

This invention consists of a metallic bushing for harness-loops, my purpose being to
10 increase the efficiency and wear of such loops without adding materially to their cost.

My said bushings may be used with advantage with any of the various loops throughout
15 a harness; but they are particularly valuable for use with the loops that are commonly suspended from the saddle of a "single" harness to support the thills. Said shaft-holders are ordinarily made of leather, and consist in
20 their simplest form of a strap doubled back upon itself and stitched to form a loop of oval form, through which the thill end may pass. When thus formed of leather alone, the constant motion of the thill tends to chafe and
25 wear away both the leather and stitching, and as a result the harness soon requires mending at that point. To prevent such wear, my metallic bushing has been produced.

In the drawings annexed hereto, Figure 1
30 is a side elevation of a thill-loop having my bushing mounted therein, and Fig. 2 is a cross-sectional view of the same on line $x\ x$. Fig. 3 is a detached perspective view of said bushing as it appears before it is placed in
35 the loop. Fig. 4 is a side elevation of the subject-matter of Fig. 3.

Referring now to Figs. 1, 2, and 3, the letter a denotes the saddle-strap of a harness, b
40 the thill-supporting loop, and c a portion of the girth-strap. One end of the loop b is secured to a buckle d , and the other end b' is secured in place by the tongue d' of the buckle.

My newly-invented bushing is formed with
45 a body portion e , of sheet metal, that is doubled upon itself and bent into approximately the shape of the loop with which it is to be used, but somewhat more open, so that when

the strap of the loop is drawn to its operative position the sides of the metallic bushing are
50 pressed together within said loop.

The edges of the main or body portion e of the bushing are turned over pieces of stiff
spring-wire e' , that give strength and elasticity to the bushing.

The free ends of the bushing are extended,
55 as at e^2 , and when intended for use with the thill-loop are slitted, as at e^3 , to straddle the tongue of the buckle d' .

In assembling the thill-loop and bushing
60 the end b' of the former is removed from the buckle and the bushing is placed within the loop-strap, with its slotted ends e^3 bent to pass through the buckle and into the box b^2 , through which the strap ends are tucked.
65 The free end b' of the loop b is then inserted in the buckle, and as it is drawn down to close the loop the metallic bushing is compressed and sprung together, as seen in Fig. 1 of the
70 drawings, and when thus compressed the "beaded" edges, together with the extensions e^2 , effectually prevent the removal or accidental displacement of said bushing until the end b' is released from the buckle.

My described bushing may be very cheaply
75 produced and may be used with new or old harnesses. It prevents all wear of the loops, keeps them in their normal shape, and adds materially to the efficiency and durability of
80 the harness.

In conclusion, it may be noted that when the bushing is detached from the loop one of its extended ends is bent back into substantially parallel relation to the body of the bushing and that the other of said ends extends
85 substantially at right angles to the body, as shown in Figs. 3 and 4; but when the harness-loop to which the bushing is applied is closed the harness-strap—as, for instance, a —presses the bushing ends together (see Fig. 1) and
90 retains them in this position as long as the strap is held in place by its keeper b^2 .

Having thus described my invention, I claim—

1. A bushing for harness-loops of the character described comprising a body portion
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having ends bent laterally in the same direction and adapted to overlap to aid in holding the bushing in the looped position.

2. The combination with a harness-loop and
5 a buckle secured thereto, of a bushing for said loop comprising a body portion having its ends bent laterally in the same direction, and a retaining-loop carried by the harness-loop and designed to receive the extremities

of the harness-loop and bushing, substantially as specified.

Signed at Norwich, Connecticut, this 26th day of March, 1898.

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Witnesses:

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