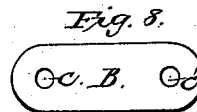
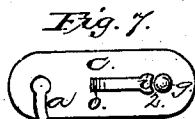
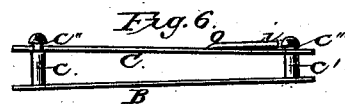
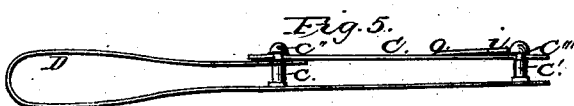
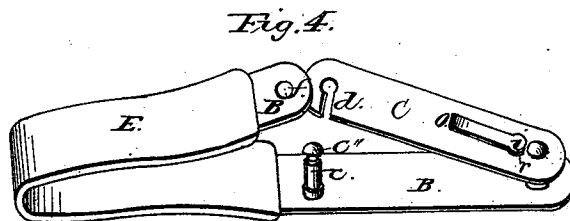
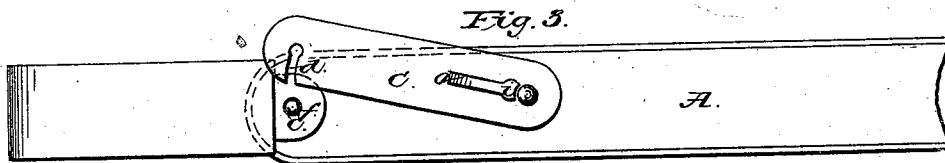
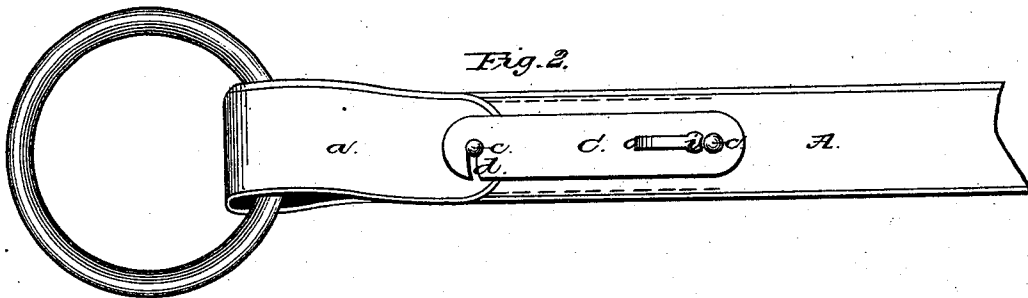
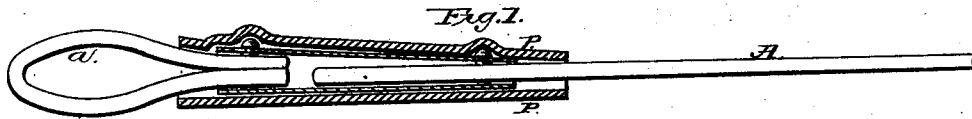


I. A. SALMON & T. COGSWELL.  
CLASPS OR COUPLINGS FOR HARNESS.

No. 173,066.

Patented Feb. 1, 1876.



Witnesses:

W. C. Crymell.  
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Inventors:

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# UNITED STATES PATENT OFFICE.

IRA A. SALMON AND THOMAS COGSWELL, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN CLASPS OR COUPLINGS FOR HARNESS.

Specification forming part of Letters Patent No. **173,066**, dated February 1, 1876; application filed October 27, 1875.

*To all whom it may concern:*

Be it known that we, IRA A. SALMON and THOMAS COGSWELL, both of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Clasp or Coupling for Harness-Fastenings; and we hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of one mode of applying our coupling to the driving-rein. Fig. 2 is a plan view of the same, showing the mode of coupling the driving-rein with the bit-ring. Fig. 3 is a representation of a driving-rein coupler with a metallic loop covered with leather or other material. Fig. 4 is a perspective view of the coupler, Fig. 3, open and without the strap, its metallic loop covered with leather. Fig. 5 is a side view of 3 and 4 closed without the leather covering. Fig. 6 is a side view of the coupler used in Fig. 2. Fig. 7 is the upper side of the same. Fig. 8 is the bottom side of the same.

The object of our invention is to provide a cheap, convenient, and easily-applied clasp or coupling for straps; and it consists of two plates, one provided with two fixed studs or posts, and the other provided with two slotted openings, as hereinafter more specifically described, and is an improvement upon the patent granted to Thomas Cogswell on November 25, A. D. 1873.

In order that those skilled in the art may make and use our invention, we will proceed to describe the manner in which we have carried it out.

In the said drawings, A is a strap, with a loop, *a*, at its end, properly punched with holes. B is a metal plate, in which, near its ends, are fixed two metal studs, rivets, or projections, *c c'*, which have grooves *c'' c'''* around them, near their upper ends. C is another metal plate, having in one end the curved slotted opening *d*, and in the other the longitudinal slotted opening *e*, corresponding in position with and intended to receive the projections *c c'*. In striking up the metallic piece C the slot *e* is formed by punching the tongue *i* in the shape shown, (the tip at 2 being cut off,) and leaving it attached to the piece C at the

point *o*. (See Figs. 2, 3, 4, and 7.) This leaves an opening having an enlargement, *r*, of a size sufficient to receive the head of one of the studs *c'*, and a slot, *g*, of a proper size to seize the stud around the groove *c'''* when pressed into it. After the stud *c'* is in place in the slot *g* the tongue *i* is forced down by a punch or otherwise in a plane with the piece C, and its end passes into the groove *c'''*, and securely holds the stud *c'* in position.

It is intended that this fastening shall, after being applied, be concealed by a sliding loop, or equivalent means, or it may be enameled or plated and used without a loop.

The operation is as follows: The strap being looped holes are punched corresponding in distance apart with the studs *c c'*, Fig. 1. Through one hole in the strap is passed the stud *c'*. Through another hole in the strap and a hole in the end of the loop is passed the stud *c*. The enlargement of the slot in the piece C is then placed over the head of the stud *c'*, and the stud is then slipped by means of the groove *c'''* into the slotted end *g*. The tongue is forced down and the head of the stud is held securely, though the plate C will revolve around the stud *c'*. The plate C is then brought around until the curved slot *d* engages around the head of the stud *c* in the groove *c''*, and the loop *a* is secured, the elasticity of the plate B acting as a spring to cause the stud *c* to snap into the inner end of the slot *g*.

Figure 1 shows a modification of our device, the loop being in a separate piece from the main strap, or the strap A may be continuous when it is not important to have the finished side of the strap and loop shown in front. The latter may be accomplished, as seen in Fig. 2, by stitching the loop *a'* to the main strap A with the finished or unfinished sides of the leather in contact, so that when the loop is folded and fastened the loop and strap present only a finished surface.

Another method adapted especially for attaching the driving-rein to the bit-ring, and also for other places where great strength is required, is to extend the end of the plate B sufficiently to form a metallic loop, D, in the end of which is a hole, *f*, which fits over the stud *c*, and may be covered with leather or

otherwise, to prevent the wear by contact with the ring, as in Fig. 4, at E, in which case the rein can be punched to receive the two studs, as in Fig. 4, thereby giving greater strength than the other forms. This loop may be made separate from the plate B and attached to the coupler represented in Fig. 6 by holes in the ends, which fit on the stud *c*, and it may be made of metal, leather, or any suitable material. The loop P, which is to conceal this clasp or coupling, is seen in cross-section in Fig. 1, and is so embossed as to present depressions on the inner surface, at the points where the heads of the studs *c c'* come in contact with it, and these depressions receive the heads of the studs and prevent the loops from slipping out of position. These loops may be lined with thin metal at the points where the heads of the studs come, so as not to slip off the heads of the posts and become loose, or a metallic spring may be used to fasten them.

Having thus described our invention, what we desire to secure by Letters Patent, is—

1. The plate B, having the fixed stud *c c'*, in combination with the plate D, having the slots *d* and *e*, substantially as set forth.

2. The loop, either united to and forming an extension of plate B, or separate from it, in combination with the coupler, consisting of plate B, with its studs, and plate or latch C, swinging upon the further stud and engaging with the one over which the loop takes, substantially as and for the purpose set forth.

3. The plate D, constructed with the tongue *g* for the purpose of securing it to the stud *c'*, substantially as described.

4. In combination with the coupling herein described, the loop, stitched to the rein in such manner that its finished side shall continue from the unfinished side of the latter, so as to present a continuous finished surface with it when looped, substantially as described.

5. In combination with the coupling, the sliding loop, embossed so as to form depressions in its inner surface for receiving the heads of the studs *c c'*, as set forth.

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Witnesses:

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