(No Model.)

P. R. GOTTSTEIN.

COUPLING FOR STRAPS, &c.

No. 318,369. Patented May 19, 1885.

Fig. 1.

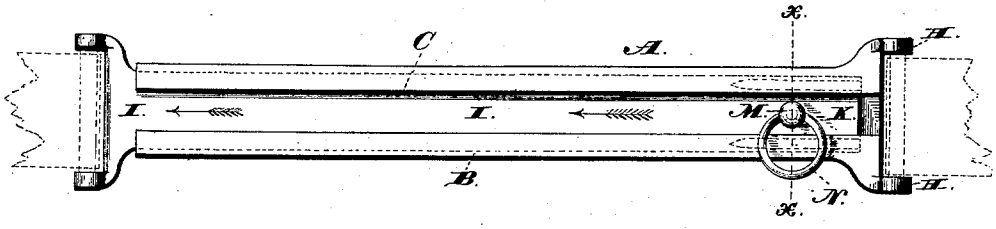


Fig. 2.

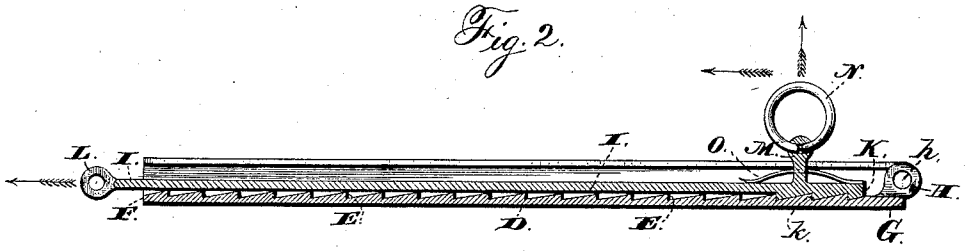


Fig. 3.

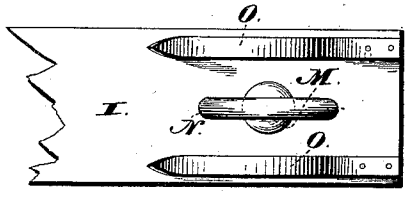
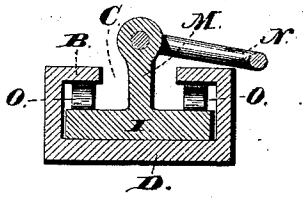


Fig. 4.



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UNITED STATES PATENT OFFICE.

PETER R. GOTTSTEIN, OF HOUGHTON, MICHIGAN.

COUPLING FOR STRAPS, &c.

SPECIFICATION forming part of Letters Patent No. 318,369, dated May 19, 1885.

Application filed August 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, PETER R. GOTTSTEIN, of Houghton, in the county of Houghton, and in the State of Michigan, have invented certain new and useful Improvements in Couplings for Harness-Straps, Gloves, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 shows a plan view of my coupling or clasp; Fig. 2, a central longitudinal vertical section of the same; Fig. 3, a detail plan view of the end of the movable sliding piece, and Fig. 4, a transverse vertical section of the coupling on line *x y* of Fig. 1.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to provide an improvement in couplings for parts of harness, for ends of straps wherever used, and which is applicable as a fastening for ladies' gloves, pocket-books, and wherever a buckle or clasp can be used; and to this end it consists of the coupling or connecting fastening, as hereinafter described and set forth.

In the drawings, A represents the main or outer portion of the coupling. As shown, it is a flattened metal shell with parallel sides and top and bottom. In cross-section it is preferably, as shown, a parallelogram. The top or bottom side, B, is open or provided with a slot, C, extending its entire length. The bottom D is formed on its inner and upper face with a series of ratchet-teeth, E, extending from the end F to or nearly to the end G, which is provided with the ears H H, by which it is to be attached to the strap or part of an article which is to be connected or coupled with another strap or part. The ears are provided with openings *h h*, through which can be passed a pin or rod extending across from one ear to the other. The strap end can be fastened to this pin or rod in any desired way. Other means of attaching the sheath portion of the coupling can, of course, be used without departure from the spirit of my invention.

In the sheath A slides the piece I, which is of a width about equal to the internal width of the interior of the sheath. At its forward end, K, this piece is provided on its under side with three ratchet-teeth, *k k k*, which are adapted to engage the ratchet-teeth E E. At its other end the piece is provided with ears L L, which have openings like those already described as being on the end of the sheath part A. These ears are for the purpose of attaching the piece to the end of the strap to be coupled or connected.

The piece I may be made entirely of metal or of metal and leather, or other flexible material. When it is made of leather and metal, the attaching end is preferably made of metal, as is also the ratchet-toothed end, which engages the ratchet-teeth on the bottom of the sheath part of the coupling.

Made in one piece with or attached in any desired way to the top of the ratchet-toothed end of the coupling-piece I is a standard, lug, or arm, M, which projects up through the longitudinal slot or opening C in the top of the sheath-piece. In the top of this lug or standard is the ring N, which can be grasped by the fingers to pull upon the lug to raise the end K of the sliding coupling-piece I. Springs O O, each attached at one end to the top of the piece I, just over the ratchet-toothed portion, serve to keep the piece end normally forced downward, so that the teeth thereon will be in engagement with the teeth on the sheath, as shown in the drawings. Each spring is, as indicated above, attached to the top of the piece I at one end and rests on the piece at its other end. The middle portion bears, as shown, up against the under face of the top of the sheath part. If desired, instead of two springs, one only can be used attached and operating like the springs described. This spring can be made broad enough to extend across the sheath from side to side, and in such case will be slotted or provided with an opening for the passage of the stud or standard M.

The operation of my device is as follows, viz: The sheath portion and the sliding coupling-piece are attached at their attaching ends in any desired way to the straps or portions of a glove or pocket-book which are to be connected or coupled together. The toothed end of the sliding piece is then introduced into the sheath as far as desired. The springs will force the sliding piece end downward, so that the teeth thereon will engage the ratchet-teeth within the sheath at any point along the sheath. As the coupling-piece is slid into the sheath,

the teeth on its end will pass easily over the inclined sides of the teeth on the sheath, the springs yielding to allow the necessary using of the piece end. If desired, the toothed end of the coupling-piece can be raised as it is slid into and along the sheath by means of the ring on the standard or lug, so that its teeth will not strike those on the sheath. When the straps to be connected have been brought close enough together by the sliding of the piece I within the sheath, the ring is then let go and the springs force and hold the end of the piece down with its teeth in engagement with the teeth E E.

To uncouple, all that is necessary is to grasp the ring and raise the end of the sliding piece until its teeth are free from those on the sheath, and then to slide or let the piece slide out of the sheath.

Instead of making a series of ratchet-teeth along the sheath and putting two or three at the end of the slide or moving piece, a series of teeth can be made along the slide, and one, two, or more on the sheath-bottom to engage them.

Instead of having ratchet-shaped teeth or projections on the sheath and slide, the sheath can be formed with a series of upright lugs with abrupt sides adapted to engage a series of holes or openings in the slide. If desired, the openings in this modification can of course be made in the sheath and the lugs on the lower face of the slide.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In a coupling or fastening for straps, gloves, and the like, a sheath provided within with a series of teeth, in combination with a slide provided with one or more rigid projections or teeth at or near its end adapted to engage the teeth on the sheath, and a spring adapted to normally press the slide end toward the serrated surface of the sheath wherever such slide end may be within the sheath, substantially as and for the purpose described.

2. In a coupling or fastening, a sheath provided within with a series of ratchet-teeth, in combination with a slide sliding within the sheath, provided with one or more teeth or projections adapted to engage those on the sheath, and one or more springs carried by and moving with the slide, engaging the inner face of the sheath and adapted to press the slide normally toward and against the serrated surface of the sheath, substantially as and for the purpose described.

3. In a coupling or fastening, a sheath provided with a longitudinal slot or opening in its top and a series of ratchet-teeth within along its bottom, in combination with the slide adapted to slide within the sheath, provided at or near its end with one or more teeth to engage the ratchet-teeth on the sheath, the springs on the top of the slide between it and the sheath-top, and the stud or arm attached to the slide and passing up through the opening in the sheath-top, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of June, 1884.

PETER R. GOTTSTEIN.

Witnesses:
J. H. RICE,
J. A. AMES.