

UNITED STATES PATENT OFFICE.

JOHN R. HOPPER, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN COMBINED SNAP HOOK AND BUCKLE.

Specification forming part of Letters Patent No. **191,857**, dated June 12, 1877; application filed March 27, 1877.

To all whom it may concern :

Be it known that I, JOHN R. HOPPER, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Combined Springless Snap Hook and Buckle; and I do hereby declare that the following is 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 longitudinal section of my invention taken on the dotted line *x* in Fig. 2. Fig. 2 is a plan view of the same.

Its nature consists in a peculiar formation and arrangement of the tongue of the buckle portion of the device and the snap or latch of the hook portion.

The hook portion *h* may be made of any desired size or form. The buckle-frame is preferably composed of the side bars *b* and the cross-bars *d f g*, the bar *f* being offset on the opposite side of the bars *b* from *d* and *g*. I prefer to form the axial pin *r* for the latch *y* and the slot for the latter to work in by setting a core in the molds. The latch is formed with an open eye, and the lip closed around the pivot when applied. The tongue *t* is formed entirely separate from the latch *y*, and is provided with a similar lip, *i*, for attaching it to the bar *g*, which constitutes its axial center. The outer end of the tongue should be curved somewhat, as shown in Fig. 1, so as to press against the under side of the latch beyond its axis, as shown. The latch may be provided with a light projecting spur, as

shown at *c*, or with a depression to receive the end of the tongue, to prevent it from becoming straightened under any undue strain.

For many purposes the counter-arm *n* would not be necessary, as the action of the parts would be sufficiently effective without it.

The tongue *t* is put through a hole near the end of the strap, which latter is indicated by the heavy dotted lines in Fig. 1, the end first being passed under the bar *d* and around over the bar *g*, and after inserting the tongue is returned under the bar *f*.

When the latch is pressed down to the position indicated by the dotted lines *y'*, as when, being connected with or detached from a ring, the end of the counter-arm *n*, when that is used, is forced up against the strap, which extra pressure increases the certainty of the latch returning to its normal or closed position.

What I claim as my invention is—

1. A harness-hook having the latch or tongue *y*, and the tongue or lever *t* pivoted on separate axes, as described, and adapted to be operated by the strap without the intervention of a spring, substantially as set forth.

2. In combination with a tongue or latch, *y*, the tongue or lever *t*, having the counter-arm *n*, said latch and tongue being pivoted on separate axes, substantially as and for the purposes set forth.

JOHN R. HOPPER.

Witnesses:

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