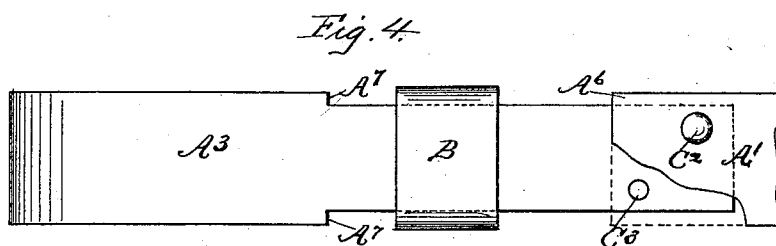
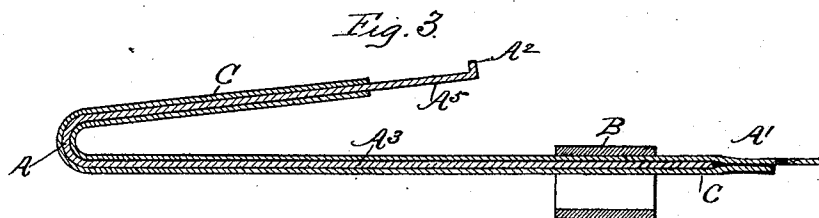
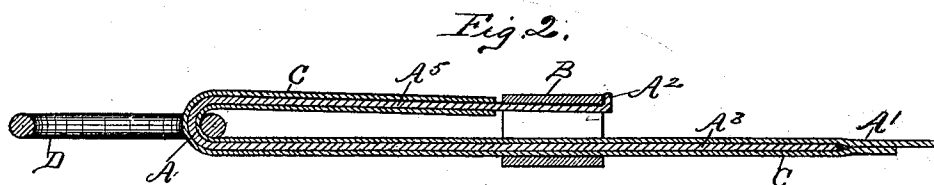
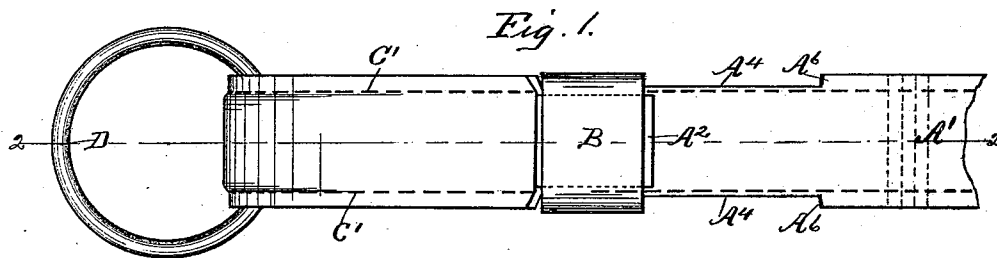


(No Model.)

A. FILKINS.
SNAP HOOK.

No. 473,173.

Patented Apr. 19, 1892.



Witnesses=
Frank E. Curtis.
John T. Booth.

Inventor=
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Att'y.

UNITED STATES PATENT OFFICE.

ADELBERT FILKINS, OF ROUND LAKE, NEW YORK, ASSIGNOR OF ONE-HALF
TO THOMAS H. BELL, OF SAME PLACE.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 473,173, dated April 19, 1892.

Application filed July 3, 1891. Serial No. 398,366. (No model.)

To all whom it may concern:

Be it known that I, ADELBERT FILKINS, a citizen of the United States, residing at Round Lake, county of Saratoga, and State of New York, have invented certain new and useful Improvements in Spring Safety-Hooks, of which the following is a specification.

My invention relates to such improvements; and it consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a top plan view of my improved hook. Fig. 2 is a vertical longitudinal section on the broken line 2-2 in Fig. 1, showing the hook closed in use. Fig. 3 is a similar sectional view showing the hook open and detached. Fig. 4 is a bottom plan view of a modification.

My improved hook comprises the U-shaped metallic spring A, with means for securing the same to a strap A', a lip A², and a tubular slide-keeper B, engageable with such lip. The legs of the spring are unequal in length, the longer leg A³ being secured to the strap and provided with a narrow or contracted portion A⁴, adapted to receive and form a slideway for the keeper. The end of the shorter leg A⁵ is bent up to form the lip A², which serves as a stop or catch for the keeper to hold the same in a locked position upon both legs of the spring. The metallic spring is preferably covered with leather or other ornamental material. I have shown in Figs. 1, 2, and 3 the covering on one side integral with the strap, preferably of leather, a similar strip of leather C being secured to the covering portion of the strap by edge lines of stitching C', which lines of stitching inclose the metallic spring.

When desired, the metallic spring may be left uncovered, as shown in Fig. 4, in which case the strap may be secured to the longer leg of the spring by rivets C², inserted through apertures in the strap and spring. In Fig. 4 a portion of the strap is broken away and one of the rivets removed to show the rivet-aper-

ture C³ in the leg of the spring. The spring may be contracted in width to form the slideway A⁴ for the keeper, the projecting edges A⁶ forming a stop to prevent the keeper from sliding away too far from the short leg of the spring or hook, and the shoulders A⁷ forming a stop to prevent the keeper from sliding too far onto such leg or hook. In the preferred form shown in the first three figures the covering is shaped to form the stops at the ends of the narrow slideway, as shown.

When it is desired to attach the hook to a ring, as the bit-ring D of a bridle, the keeper is disengaged from the hook, as shown in Fig. 3, the hook inserted in the ring D, the spring-hook partly closed by the hand, and the keeper slipped over the lip A² onto the hook or shorter leg, as shown in Figs. 1 and 2. When released by the hand, the resilient force of the spring forces the shorter leg against the keeper and the lip serves to hold the keeper securely in place, rendering it impossible for the bit-ring to escape from the hook until the latter is partially closed against the resilient force of the spring.

The hook can be easily and quickly operated by the hand, but is not likely to be accidentally opened while in use. As the spring itself forms the hook, and the whole device, aside from the strap attachment, is comprised in two parts—viz., the spring-hook and the keeper—there is very little mechanism to get out of order, and the open loosely-fitting nature of the construction reduces to a minimum the danger of choking the device and rendering it inoperative by mud or snow and ice. Portions of the legs may be contracted transversely to form the keeper-slideway, either by cutting away a part of the spring itself or of the covering material, as shown.

By having the keeper in the form of a flattened section of a tube it is made to resemble the form of and when covered with leather the appearance of ordinary harness-loops used in connection with buckles, and by having the slideway along which the keeper moves narrower than the body part of the spring and strap the keeper presents a neat and ornamental appearance, the outer sides of the keeper being approximately in line with the outer edge of the strap and hook.

I am aware that ring-keepers have been used in connection with spring-hooks, being pivoted to the longer leg in a position to be swung over the end of the shorter leg. In
5 such form of construction the ring is liable to be bent in use to a form which would prevent the shorter leg from being inserted therein. The ring is also subjected to considerable torsional strain, which would tend to twist and
10 break the pivotal connection between the ring and the longer leg of the hook or render it inoperative. By having the keeper made of a section of considerable length of a tube flattened or bent, so as to present when viewed
15 in cross-section an approximately rectangular figure, I am able to produce a keeper adapted to slide along the legs of the hook, which presents extended bearing-surfaces between the keeper and legs to reduce deterioration by
20 wear while in use and impart to the keeper strength to resist unusual strains.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a spring safety-hook, the combination,
25 with a U-shaped spring having legs of unequal length, means for attaching the longer

leg to a strap, a keeper-slideway on the longer leg, keeper-stops at each end of the slideway, and a keeper-stop on the end of the shorter leg, of a keeper adapted to embrace both legs, 30 movable on such slideway longitudinally of the longer leg to and from the shorter leg, substantially as described.

2. In a spring safety-hook, the combination, with a U-shaped spring, means for securing 35 one leg of the spring to a strap, and a keeper-slideway comprising a transversely-contracted part of the shorter leg located at its end and a similarly-contracted part located immediately of the ends of the strap-leg, of a 40 tubular slide-keeper adapted to embrace both legs, movable longitudinally of the strap-leg slideway to and from the slideway on the other leg, and a keeper-stop on the end of the last-mentioned leg, substantially as described. 45

In testimony whereof I have hereunto set my hand this 29th day of June, 1891.

ADELBERT FILKINS.

Witnesses:

JOHN D. ROGERS,
JOHN C. SPIERRE.