(No Model.)

W. R. SMEAL.

SNAP HOOK.

No. 479,026. Patented July 19, 1892.

Fig. 1.

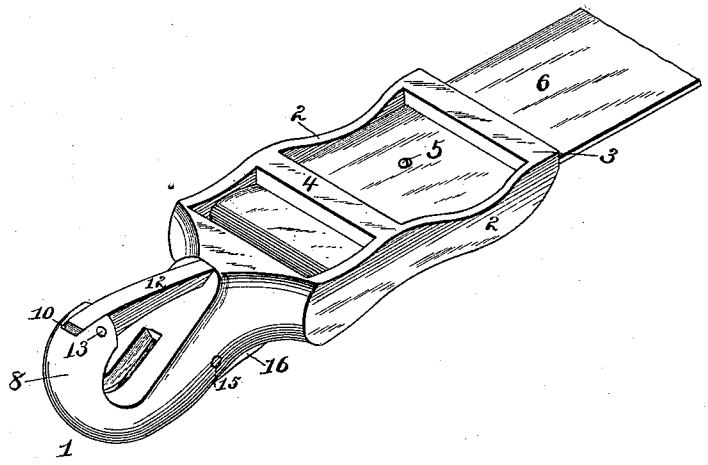


Fig. 2.

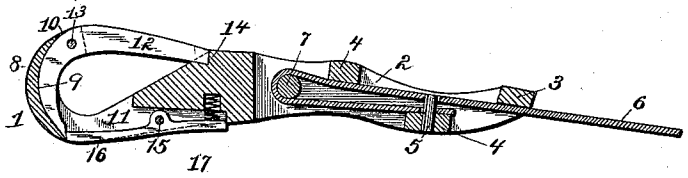
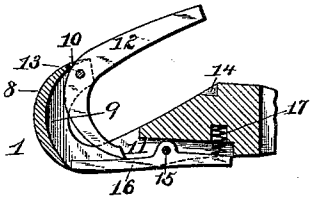


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WILSON R. SMEAL, OF GRAHAMTON, PENNSYLVANIA.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 479,026, dated July 19, 1892.

Application filed February 11, 1892. Serial No. 421,182. (No model.)

To all whom it may concern:

Be it known that I, WILSON R. SMEAL, a citizen of the United States, residing at Grahamton, in the county of Clearfield and State of Pennsylvania, have invented a new and useful Snap-Hook, of which the following is a specification.

This invention relates to improvements in snap-hooks of that class comprising in its makeup a pivoted tongue for closing the opening in the hook; and its objects are to provide such a hook, the same being of cheap and simple construction, and to provide means for locking the tongue in a closed position in such a manner as not to be accidentally opened, to protect the tongue from strain, and also protect and house the spring for actuating the locking device or catch.

With these objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a hook constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a detail section showing the hook in its open position.

Like numerals of reference indicate like parts in all the figures of the drawings.

In this instance the shank 1 of the hook emerges from the cross-bar at one end of a rectangular buckle-frame, which consists of the opposite side bars 2, the rear connecting transverse bar 3, and the upper and lower transverse bars 4, one of which is provided upon its inner side with a stud 5. One end of a strap 6 is provided with a perforation, which receives the stud, the remaining end of the strap being passed forwardly around a transverse pin 7, thence rearwardly over the stud, where it is again perforated to receive the same, and under the bar 3. In this manner a secure connection is made between the buckle and the strap, which of course may be any part of a harness. The shank 1 of the buckle is curved to form an ordinary rigid hook 8, the inner curved surface of which is recessed, as at 9, which at the extremity of the hook gradually merges into a notch or bifurcation 10 and in the shank of the hook forms an opening 11.

12 designates a tongue, which is curved, as shown, and is pivoted at 13 within the bifurcation 10 of the hook. The outer extremity of the tongue when the same is closed rests in an indentation or cavity 14, formed in the upper side of the shank, while that portion of the tongue in front of the pivot 13 rests in the recess 9 and terminates at the edge of the opening 11.

Pivoted by a pin 15 in the recess 11 is a latch 16, the rear end of which is widened to form a thumb-rest and the front end of which terminates under the front end of the tongue, whereby the same is prevented from swinging upon its pivot. A spring 17 is interposed between the rear end of the latch and the shank and serves to depress said rear end and elevate the front end of said latch into the path of the lower front end of the tongue. When the tongue is closed, it will be seen that its front curved portion rests upon the recess 9 and bears no strain.

In order to apply the snap-hook, it is simply necessary to press upon the rear end of the latch against the tension of the spring, which thus causes a withdrawal of the front end of the latch from the path of the tongue and permits the latter to swing upon its pivot, thus opening and giving access to the hook. Now by engaging the hook over a ring and giving a slight pull the ring, striking in the curved portion of the tongue in front of its pivot, swings the tongue to a closed position, where it passes beyond the front end of the latch, so that, as will be obvious, an automatic locking of the tongue takes place.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a snap-hook embodying both simplicity and strength, together with convenience in operation and safety; also, that all parts of the hook at all liable to injury or impairment—such as the tongue, latch, and spring—are concealed within the hook or some portion of it, and hence preserved. It will also be seen that I have provided a convenient means for attaching the device to a strap without the necessity of

sewing the latter; but at the same time I would state that the snap-hook may terminate in an ordinary eye.

Having described my invention, what I claim is—

1. The herein-described improved snap-hook, consisting of the shank curved to form the hook and provided in its shank with a slot or recess and at its outer end with a bifurcation, the curved tongue pivoted in the bifurcation and having its outer end lying upon the shank and its inner end curved to approximate the hook and terminating in the opening or slot in the shank thereof immediately adjacent to the end of the locking-lever, and the locking-lever pivoted between its ends in said slot and having its outer end spring-pressed into the path of the inner end of the tongue, substantially as specified.

2. The combined snap-hook and buckle, the same consisting of the curved shank forming the hook and provided at its inner end with a slot and at its outer end with a bifurcation, the curved tongue pivoted in the bifurcation and having its outer end lying upon the shank and its inner end curved to approximate the hook and terminating in the slot immediately adjacent the outer end of the locking-lever, the locking-lever pivoted between its ends in said slot and having its outer end spring-pressed into the path of the inner end of the tongue, the frame comprising the front and rear cross-bars, from which former the shank extends, the opposite side bars connecting the front and rear bars, the intermediate cross-bars arranged at opposite edges of the side bars and out of alignment with each other, the rearmost of said intermediate bars having an upwardly-disposed stud 5, and the cross-bar 7, arranged in front of the two intermediate cross-bars and opposite the space between the same, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILSON R. SMEAL.

Witnesses:

ALFRED G. ROTHROCK,

D. R. HOUSER.