(No Model.)

C. T. REDFIELD.

SNAP HOOK.

No. 593,495. Patented Nov. 9, 1897.

Fig. 1.

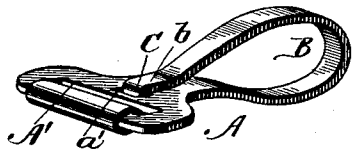


Fig. 2.

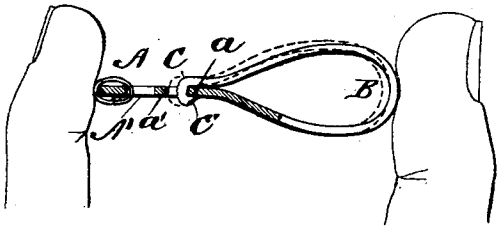


Fig. 3.

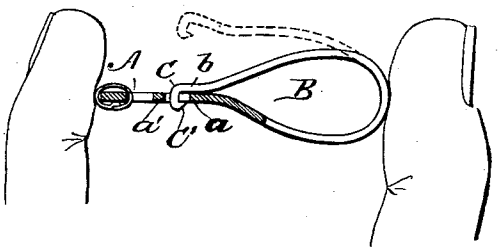


Fig. 4.

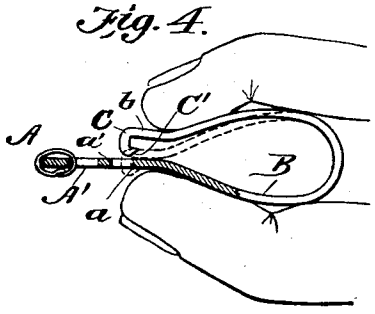


Fig. 5.

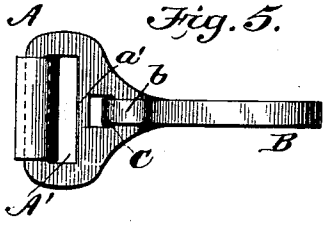


Fig. 6.

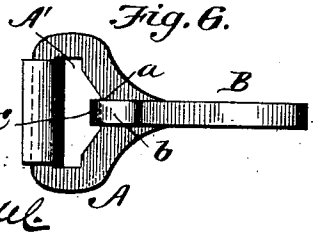
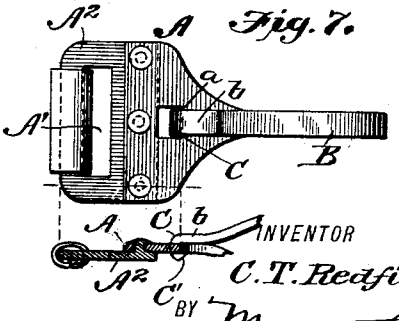


Fig. 7.



WITNESSES:

M. S. Blondel.

P. B. Turpin.

INVENTOR

C. T. Redfield.

BY Munn & Co.

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES T. REDFIELD, OF GLEN HAVEN, NEW YORK.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 593,495, dated November 9, 1897.

Application filed March 25, 1897. Serial No. 629,250. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. REDFIELD, of Glen Haven, in the county of Cayuga and State of New York, have invented a new and useful Improvement in Snap-Hooks, of which the following is a specification.

My invention is an improvement in snap-hooks, and has for its object, among others, to provide a snap-hook which will be cheap, light, strong, and can be easily snapped and unsnapped in the dark, if necessary; and the invention consists in the construction of the hook, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my snap-hook closed. Figs. 2, 3, and 4 are side views illustrating the operation of snapping and unsnapping the hook. Fig. 5 is a plan view of the hook, and Figs. 6 and 7 show slightly-different constructions.

The hook is shown as formed with a shank A and the hook proper, B, whose point C is sprung into and out of interlocked engagement with the shank, such hook having a longitudinal and a lateral tension, whereby it may operate by its longitudinal tension to draw its point C into engagement with the seat of the shank and to hold it in such engagement and permit its release, and the lateral tension serving to spread or open the hook wide when it is released from the shank, as will more fully appear hereinafter.

In the particular construction shown and as preferred the shank A is formed with a seat *a* for the point C of the hook and with a loop A′ for a strap. This loop may be integral with the main portion of the shank, as shown in Fig. 1, and the seat *a* and loop-opening may be separated by a cross-bar *a*′, as shown in said Fig. 1, or the seat and loop-opening may communicate, if desired, as shown in Fig. 6. It will also be understood that where desired the loop A′ may be formed in a separate section A^2, which may be riveted or otherwise secured to that portion of the shank which is integral with the hook proper, as shown in Fig. 7.

In securing the interlocked engagement of the hook-point and shank it is preferred to form the point C with a re-turned portion, forming a short hook, as best shown in Fig. 3, which is adapted to embrace the seat *a* of the hook and is beveled at C′, so it may be forced into engagement with such seat, as shown in the drawings. It is also preferred to form the hook B with a comparatively straight section *b*, extending for a short distance from its point C and coinciding in the closed position of the hook with the shank A against which it rests. This construction is preferred because it tends to strengthen the engagement of the hook with the shank and decreases the liability of accidental release of the hook and at the same time somewhat shortens the loop of the hook, thus tending to strengthen the same.

In the use of my snap it will be understood that when closed, as shown in Fig. 1 and full lines, Fig. 2, it will form a strong snap which cannot become accidentally released and will give ample strength in the direction of strain. In this position the longitudinal tension of the hook holds the point C firmly in lock with the seat *a* of the shank A. To open the hook, it is only necessary to compress it longitudinally, which may be done between thumb and finger, as shown in Fig. 2, which will compress the hook, as indicated in dotted lines, Fig. 2, and full lines, Fig. 3, when instantly the lateral tension of the hook will come into play and spread the hook wide open, as indicated in dotted lines, Fig. 3. To close the hook, it is only necessary to compress it laterally, as shown in Fig. 4, such compression bringing the beveled surface of the point C against the shank and compressing the hook longitudinally, causing the point C to move into interlocked engagement, as will be seen from Fig. 4.

My snap-hook will be found of especial utility in harness, in which case the strap-loop may be adapted to receive any forms of strap or rope used in harness; but the invention will also be found useful on vest-chains for connection with the buttonhole and, if desired, for snapping on the ring of a watch and for eyeglass-holders and in any and all uses where a snap-hook is desired.

In use it will be understood the hook cannot pull or straighten out, because it snaps into itself and forms a continuous ring, and the greater the strain the more tightly will

it be held in interlocked engagement. The hook also interlocks in the full strength of the metal.

An important feature of my invention is the facility with which it can be snapped and unsnapped, both of which operations can be easily effected in the dark with mittens or gloves on, and the snap in both interlocking and releasing the hook gives evidence to the operator that the result has been accomplished. When the hook is unsnapped, it springs wide open and remains so, thus avoiding the necessity of holding any spring-tongue out of the way, and when the hook is released its full capacity is exposed.

It will be seen the hook cannot become accidentally opened and that it can be cheaply made of steel, brass, or other suitable spring metal or material.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A snap-hook having its shank provided with a seat, and its hook formed with a longitudinal and lateral tension and arranged at its point to be sprung into and out of interlocked engagement with the shank-seat substantially as described.

2. A snap-hook having its shank provided with a seat and the point of its hook adapted to interlock with said seat and having a tension in the direction of the length of the shank whereby it is held in such engagement and a lateral tension whereby it is spread or opened when released substantially as described.

3. A snap-hook having its hook proper given a longitudinal and lateral tension and arranged at its point to interlock with the shank, substantially as described.

4. A snap-hook having its shank provided with a seat and its hook formed with longitudinal and lateral tension and arranged at its point to interlock with such seat such hook being provided with a comparatively straight portion coinciding in the interlocked position of the hook with the shank of the hook substantially as described.

5. The snap-hook herein described, having a shank provided with a seat, the hook proper having longitudinal and lateral tension and its point provided with a re-turned portion and beveled at its extremity and arranged to be sprung into interlocked engagement with the seat of the shank, substantially as described.

6. A snap-hook having a shank or body and a spring-hook whose point interlocks with said shank or body when pressed to closed position, such hook spreading or throwing itself wide open when its point is released from said interlocking engagement substantially as described.

7. A snap-hook having a shank provided with a seat and its hook proper formed with a longitudinal and lateral tension with its point provided with a re-turned portion springing into interlocked engagement with said seat substantially as described.

CHARLES T. REDFIELD.

Witnesses:
SOLON C. KEMON,
PERRY B. TURPIN.