(No Model.)

A. C. RAYMOND.

SNAP HOOK.

No. 302,028. Patented July 15, 1884.

Fig. 1.

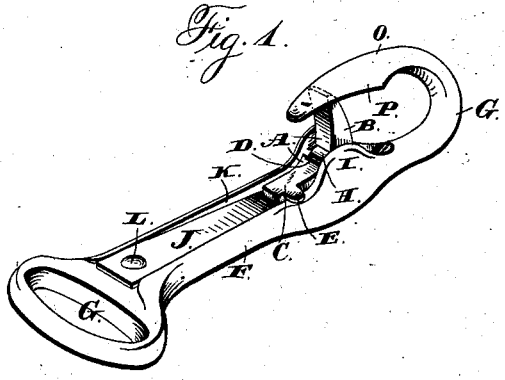


Fig. 2.

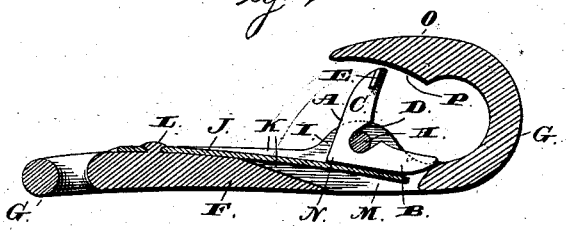


Fig. 3.

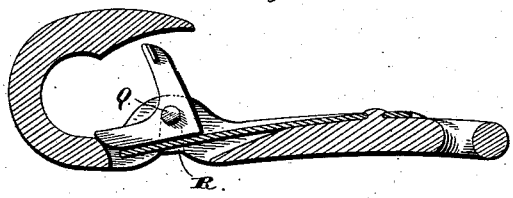
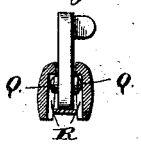


Fig. 4.



WITNESSES

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ALBERT C. RAYMOND, OF MERIDEN, CONNECTICUT, ASSIGNOR TO HOBART C. HULL, OF SAME PLACE.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 302,028, dated July 15, 1884.

Application filed March 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALBERT C. RAYMOND, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Snap-Hooks; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in snap-hooks, the object being to produce an article which shall be adapted to be both opened and closed without using the fingers, and which shall combine simplicity and cheapness of construction with durability and efficiency in use.

With these ends in view my invention consists in a snap-hook provided with an adjustable fork arranged to be operated by direct pressure upon its arms, and to be sustained in its open and closed adjustments solely by a spring.

My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of a snap-hook constructed in accordance with my invention. Fig. 2 is a view thereof in vertical longitudinal section. Fig. 3 is a similar view of one of the modified forms which the invention may assume, and Fig. 4 is a view thereof in vertical transverse section through the lips of the shank and showing the fork in elevation.

As shown in Figs. 1 and 2 of the drawings, the vibrating fork A is provided with arms B and C, inclined to each other at something less than a right angle, with an open slot, D, located between the said arms, and with a finger, E, situated near the end of the arm C, as shown. The fork is fulcrumed in the shank F of the hook G by its engagement through its open slot D with a pin, H, located between two lips, I, formed upon the upper face of the shank of the hook. The fork is sustained in its engagement with the said pin by means of a flat spring, J, which extends under it and engages directly with the outer faces of its arms. In virtue also of the described engagement of the spring with the fork, the same is held in its open and closed positions thereby, and without other aid. The said spring is located in an inclined recess, K, formed in the upper face of the shank, and secured therein by a rivet, L, cast integral with the shank. The pin H aforesaid is cast integral with the lips I, and to enable it to be cored the shank is formed with an opening, M, into which the elbow N of the fork extends as the same is shifted in position. For the purpose of widening the opening between the shank and the loop O of the hook, the said loop is cut away, as at P, on a curved line. When the hook is in its open adjustment, the arm B of the fork is elevated, as shown in Fig. 1 of the drawings. To engage a ring, link, strap, or other part of a harness with the hook, the part, whatever it may be, is pressed directly against the said arm B of the fork, with the effect of throwing the same over into the position in which it is shown in Fig. 2 of the drawings. In this position of the fork the part engaged with the hook is prevented from being disengaged therefrom by the arm C of the fork.

To release the part engaged with the hook, it is pressed directly against the said arm C, and is released as the fork is thrown back into its first position. It will thus be seen that my improved hook is both opened and closed without using the fingers, and that it is operated by direct pressure upon the arms of the fork. It is to be noted, also, that as the spring passes from one arm of the fork to the other arm thereof it throws the same quickly into position, the pressure upon the arms of the fork being required only at the beginning of the movement in either direction.

After the ring, link, strap, or other part of the harness has been engaged with the hook, the same may be locked, if desired, by throwing the fork back to its open position with the hand by means of the finger E, located upon the arm C of the fork, as has been described. In this position of the fork the part engaged with the hook can only be released therefrom by restoring the fork to its closed

position, which is done by hand, as before, and then removing the part in the usual manner.

In the modification shown in Fig. 3 of the drawings the fork is provided with a pin, Q, which projects from its opposite faces. The projecting ends of the said pin have bearing in recesses R, formed in the inner faces of the lips of the shank, and extending from the opening therein to a point just within the upper edges of the lips, which are cast sufficiently apart to receive the pin, and then closed together to engage it. In other respects the modified hook is the same in construction as that shown in the other figures of the drawings. If desired, the pin H may be supplied to the lips instead of being cast with them. If desired also, the walls of the recess K may be upset for holding the spring J in place, instead of using a rivet for that purpose. I would therefore have it understood that I do not limit myself to the exact construction shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

I am aware that a snap-hook provided with a fork actuated by a spring and supported in its closed position by engagement with the end of the hook is not new. I do not therefore claim, broadly, a snap-hook provided with a spring-actuated fork, but only my particular construction and arrangement of parts.

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

1. A snap-hook having an adjustable fork shaped substantially as shown, and a spring arranged to engage with the outer faces of the arms of the said fork, and shifting from one arm to the other as the fork is adjusted, substantially as set forth.

2. A snap-hook having an adjustable fork shaped substantially as shown, and provided with an open slot through which it is engaged with a pin located in the shank of the hook, substantially as set forth.

3. A snap-hook having a vibrating fork one arm of which is provided with a finger, substantially as set forth.

4. A snap-hook having a spring-actuated fork, the shank of the hook, the fork, and the spring being constructed and arranged substantially as shown and described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALBERT C. RAYMOND.

Witnesses:
EDWARD H. ROYEN,
GEO. D. SEYMOUR.