(No Model.)

C. H. SMITH.

SNAP HOOK.

No. 465,296. Patented Dec. 15, 1891.

Fig. 1

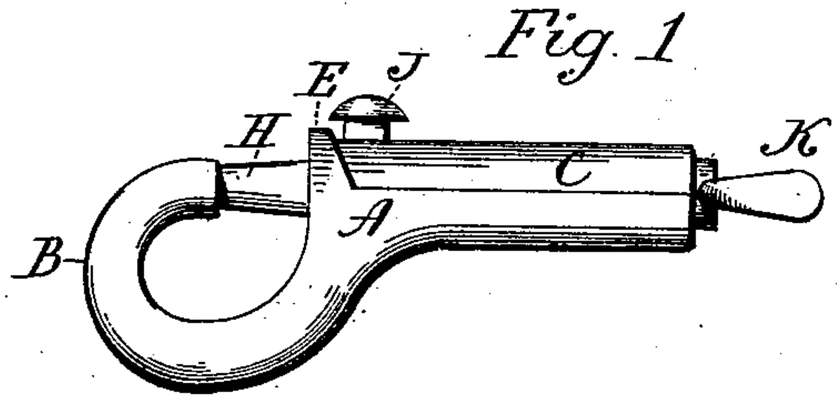


Fig. 2

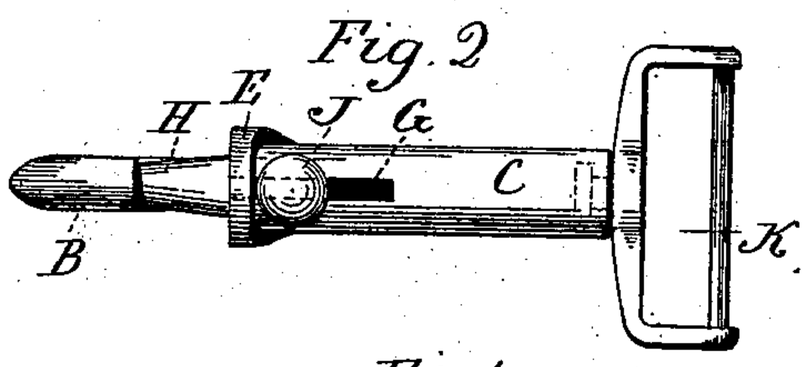


Fig. 3

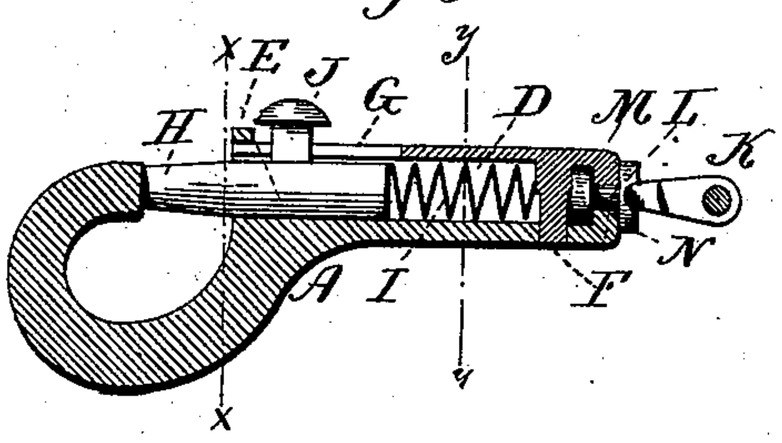


Fig. 4

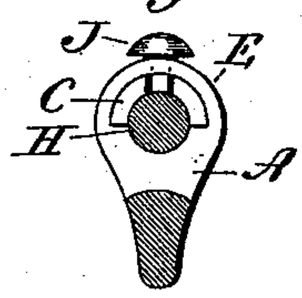


Fig. 5

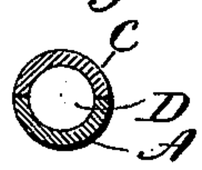


Fig. 6

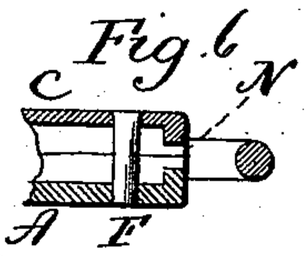


Fig. 10

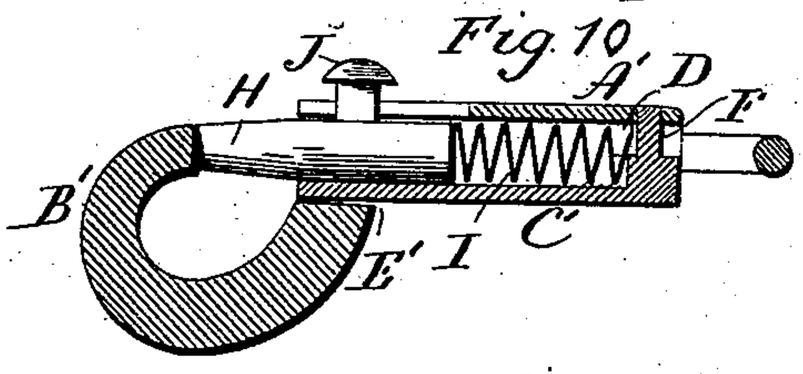


Fig. 8

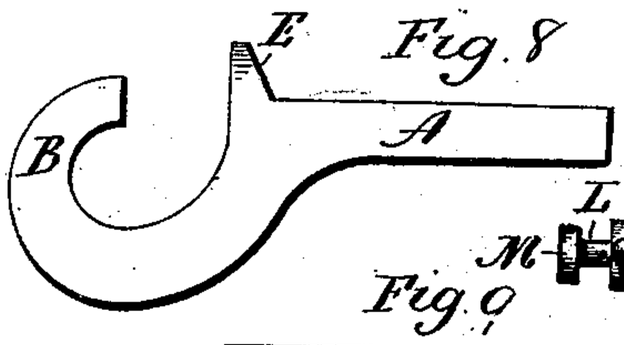


Fig. 7

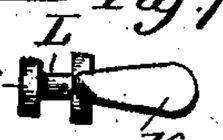


Fig. 9

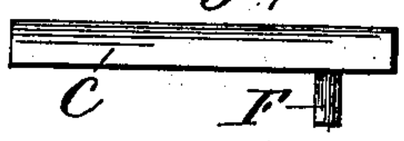


Fig. 12

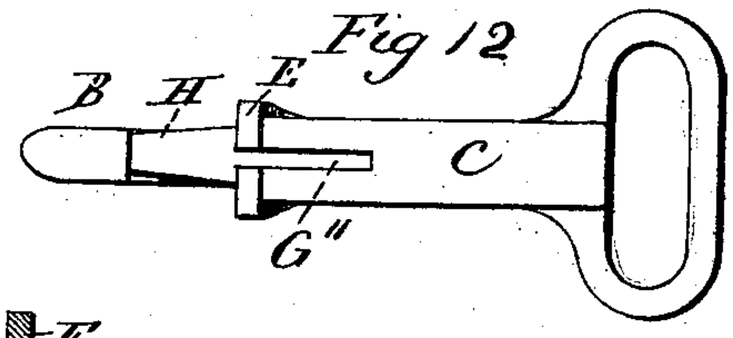


Fig. 11

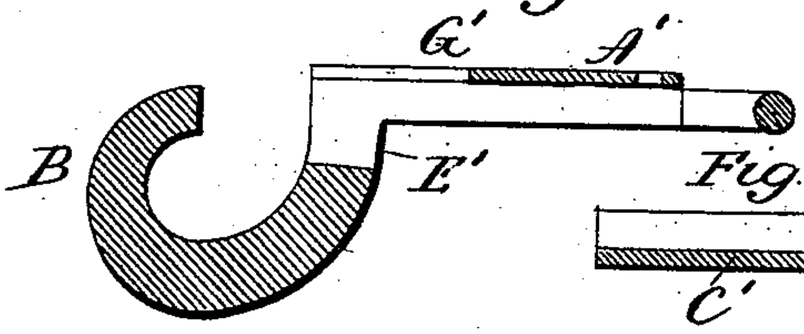
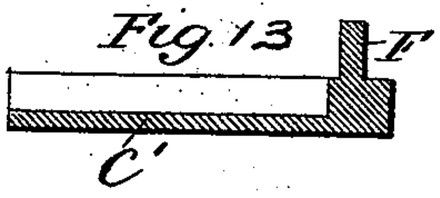


Fig. 13



Witnesses
J. R. Shumway.
Lillian D. Kelsey.

Charles H. Smith.
Inventor
By Attys.
Earle & Seymour

UNITED STATES PATENT OFFICE.

CHARLES H. SMITH, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE O. B. NORTH & COMPANY, OF SAME PLACE.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 465,296, dated December 15, 1881.

Application filed May 25, 1891. Serial No. 393,955. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SMITH, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Snap-Hooks; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of the hook complete; Fig. 2, a top view of the same; Fig. 3, a longitudinal central section showing the bolt and spring in side view; Fig. 4, a transverse section cutting on line *x x* of Fig. 3; Fig. 5, a transverse section on line *y y* of Fig. 3; Fig. 6, a longitudinal central section of the rear end of the body and cap, showing the loop detached, also showing the parts as secured together by a rivet through the two; Fig. 7, a side view of the loop detached; Fig. 8, a side view of the body with the cap removed; Fig. 9, a side view of the cap detached; and Figs. 10, 11, 12, 13 modifications.

This invention relates to an improvement in that class of snap-hooks in which the body is of tubular form, having a hook at one end and an attaching device at the opposite end, the tubular body forming a chamber in which a longitudinally-movable bolt and spring are arranged, the tendency of the spring being to force the bolt forward into engagement with the nose of the hook, and so as to close the opening into the hook, the tubular body constructed with a longitudinal slot at its forward end through which a thumb-piece projects from the bolt and by which thumb-piece the bolt may be moved to open the hook, a common and well-known class of hooks.

The object of the invention is a construction which will permit the parts to be cast complete and so as to avoid to a considerable extent the mechanical operations heretofore necessary in the construction of this class of hooks; and it consists in the construction, as hereinafter described, and particularly recited in the claims.

A represents the body, which terminates at one end in a hook B and at the opposite end in a loop or other suitable device by which it may be attached.

C represents a cap, which covers the body, the division between the cap and body being in a horizontal longitudinal plane. Both the cap and body are constructed with a recess upon their faces to form the spring and bolt chamber D, (see Figs. 3 and 5,) thus making a body of tubular shape open at the forward end in line with the nose of the hook, as seen in Fig. 3. At the forward end of the body an upwardly-projecting loop E is formed, (see Figs. 3 and 4,) and so that the forward end of the cap may be introduced into said loop from the rear, and so that the cap set upon the body its forward end will be embraced by the loop E, as seen in Figs. 3 and 4, this loop forming a means for securing the cap to the body at the forward end. At the rear end the cap is secured to the body by a rivet F, preferably cast integral with one of the parts and so as to extend through a corresponding hole in the other part to be riveted thereon to secure the rear ends of the cap and body together.

The cap is constructed with a longitudinal slot G at its forward end. Into the longitudinal chamber between the cap and body the bolt H and its spring I are arranged in the usual manner, the bolt being constructed with a thumb-piece J, which projects through the slot G of the hook, and by means of which the bolt may be moved rearward against the pressure of the spring, and then left free, the reaction of the spring will force the bolt forward against the nose of the hook, as usual in this class of snaps.

It is desirable in many cases to make the strap attachment of the hook in the form of a swivel. This swivel is composed of a loop K, having on its center forward side a projecting stud L, constructed with a head M. (See Figs. 3 and 7.)

At the rear end of the body and cap an opening N is formed, corresponding to the stud L of the loop, and so that the loop may be introduced before the cap and body are secured together, the stud L resting in the said recess N, while the head M stands within the spring-chamber, as seen in Fig. 3. Then the cap and body, secured together, hold the loop in place

but allow it to oscillate on its stud L as a pivot.

The rivet by which the parts are secured together may be made separate from either the body or the cap and introduced through holes formed in both, as seen in Fig. 6.

Instead of making the cap upon the upper side of the body, it may be placed upon the under side, as seen in Fig. 10. In that case the body A′ forms the upper portion of the chamber and the cap C′ the lower portion, the body being constructed with the slot G′ in its forward end, and so that the loop E′ comes below the body, as seen in Fig. 11.

The cap C′, Fig. 13, is constructed of substantially the same shape as in the first illustration, and so that its forward end may pass into the loop in the assembling of the parts and be secured at the rear, as before. In this construction it will be necessary to make the slot G′ open at its forward end, as seen in Figs. 10 and 11, for the insertion of the bolt, so that the thumb-piece may enter the slot P. In the first illustration the slot may extend through the end of the cap, but not necessarily open the loop, although the loop may be open, as seen at G in Fig. 12, if desirable.

Instead of making the attaching device as a swivel-loop, as in the first illustration, the loop may be cast as an integral part of either the body or the cap, as represented in Fig. 12, or any of the known devices may be provided for the attachment of the loop to the strap.

I claim—

1. A snap-hook consisting of a body A, terminating at one end in a hook B, combined with a cap C, arranged upon the body, the division between the body and the cap being in a longitudinal central plane and the faces of the body and cap constructed with recesses forming a spring and bolt chamber, the cap and body secured together, a bolt and spring within said chamber, with a projection from the bolt through a longitudinal slot as a means for operating the bolt, the rear end of the cap and body constructed with a longitudinal opening, and with a loop constructed with a projecting-headed stud L, arranged in the said opening, and so that the said loop may oscillate as a swivel at the attaching end of the body, substantially as described.

2. A snap-hook consisting of a body A, terminating at one end in a hook B, and provided at the opposite end with a loop or eye, the body at its forward end constructed with projecting loop E, combined with a cap C, arranged upon the said body, the division between the body and the cap being in a longitudinal central plane and the cap at its forward end adapted to extend into the said loop E as a means for securing the forward end of the cap to the body, the cap secured to the body at the rear, and the cap and body constructed upon their adjacent faces with a longitudinal recess forming a spring and bolt chamber, and also constructed with a longitudinal slot G, the bolt H, and its spring I, arranged in said chamber, the bolt constructed with a thumb-piece J, projecting through said slot, substantially as described.

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

CHARLES H. SMITH.

Witnesses:
LUCIUS H. PRINDLE,
GEO. N. SHINER.