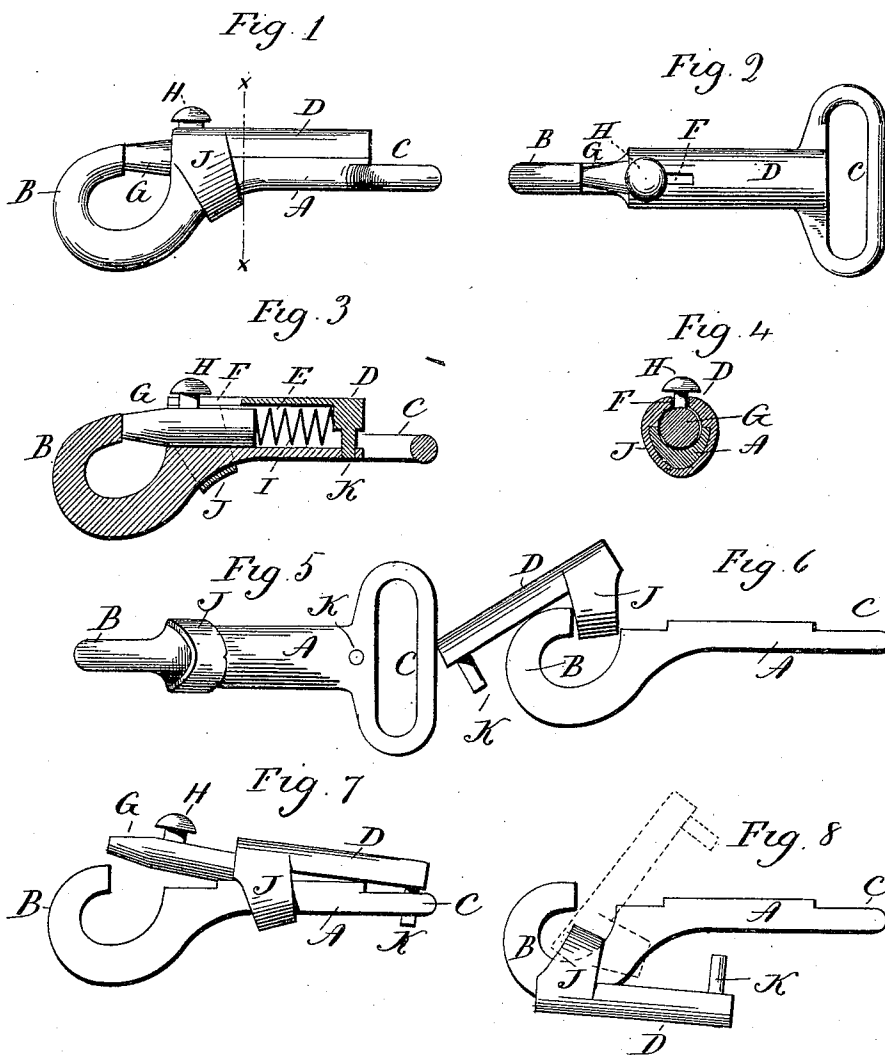


(No Model.)

C. H. SMITH.
SNAP HOOK.

No. 461,646.

Patented Oct. 20, 1891.



Witnesses.
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William D. Kellogg

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UNITED STATES PATENT OFFICE.

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

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 461,646, dated October 20, 1891.

Application filed May 25, 1891. Serial No. 393,954. (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 side view of the bolt and spring; Fig. 4, a transverse section on line *x x* of Fig. 1, looking toward the loop; Fig. 5, an under side view of the hook; Figs. 6, 7, and 8, views illustrating the manner of assembling the parts.

This invention relates to an improvement in the construction of that class of snap-hooks in which the body is of tubular form, having the hook at one end and loop or other device at the opposite end, as a convenience for attaching the hook to the strap. The tubular body stands in line with the point of the hook, and in the tubular body a bolt is arranged with a spring, the tendency of which is to force the nose of the bolt toward the nose of the hook and so as to close the opening into the hook, the body being constructed with a longitudinal slot through which a thumb-piece on the bolt projects as a convenient means for operating the bolt, the object of the invention being a construction which will permit the tubular body to be formed, so that little or no mechanical work other than that of the mere assembling of the parts is required in the manufacture of the hook; and the invention consists in the construction, as hereinafter described and particularly recited in the claim.

A represents the body of the hook, terminating at one end in a hook B, and at the other end in a loop, swivel, or other known device, here represented as a loop C, and by which the hook may be attached to the strap or to whatever it may be desired. Upon the body is a cap D, the division between the body and the cap being longitudinal and in a horizontal plane, as seen in Fig. 4. In both the body

and the cap a longitudinal recess is made upon their adjacent faces to form the bolt and spring-chamber E, (see Fig. 3,) thus making the body complete of tubular shape, as usual in this class of snap-hooks. The cap is constructed with a longitudinal slot F at its forward end, such as usually provided in this class of hooks. Within the body the bolt G is arranged, having a thumb-piece H, which extends through the slot F, and by which the bolt may be drawn backward, and in rear of the bolt a spring I is arranged, the tendency of which is to force the bolt toward the nose of the hook and so as to close the opening into the hook, as usual in this class of snaps.

As a means for securing the cap to the body, it is constructed at its forward end with a loop J, adapted to embrace the body of the hook at that point, and so as to fit snugly thereon. The loop is cast as a part of the cap, and the cap is applied to the body by first introducing the nose of the hook through the loop J of the cap in a reverse position, as seen in Fig. 6, the hook entering the cap, and the cap passed around below the body of the hook, as seen in Fig. 8, and then the body is turned upward, as seen in broken lines, Fig. 8, bringing the cap again above the body of the hook and the loop below. Then the loop is drawn back onto the body and cap, the loop passing rearward, as seen in Fig. 7. In this position the spring and bolt are introduced and brought to place, as seen in Fig. 3. The cap is then moved forward, the slot F passing onto the thumb-piece H of the bolt, and the loop J to its bearing upon the under side of the hook, so as to secure the forward end of the cap firmly to the body. At the rear end the cap is secured by a rivet K, which is preferably made as a part of the cap, and extending through a corresponding hole in the body is riveted down thereon, as clearly seen in Fig. 3. This completes the hook. The cap is readily molded and cast complete, as is the body with the loop and hook at its respective ends, and the rivet-hole may be formed in the process of casting the body and the rivet cast as a part of the cap. The bolt is also cast complete. These parts may therefore be completely finished in the tumbling-barrel and with substantially no mechanical labor required other than that of

assembling the parts and the simple operation of riveting, and when the parts are assembled and secured together the tubular body of the hook is substantially as strong and firm as if
5 cast complete.

I claim—

A snap-hook consisting of a body terminating at one end in a hook and at the other end with means for attachment, combined with a
10 cap covering the body, the cap and body recessed to form a longitudinal bolt and spring-chamber opening toward the nose of the hook, the division between the cap and body being in substantially a longitudinal central plane;
15 the cap at its forward end constructed with a

loop adapted to surround the body at that end of the cap, and the cap secured to the body at its rear end, a spring and bolt within the tubular body, the cap constructed with a longitudinal slot, and a bolt constructed with a
20 a thumb-piece projecting through said longitudinal 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.