No. 720,673. PATENTED FEB. 17, 1903.

J. W. COLLINS.

SNAP HOOK.

APPLICATION FILED MAR. 25, 1902.

NO MODEL.

Fig. 1.

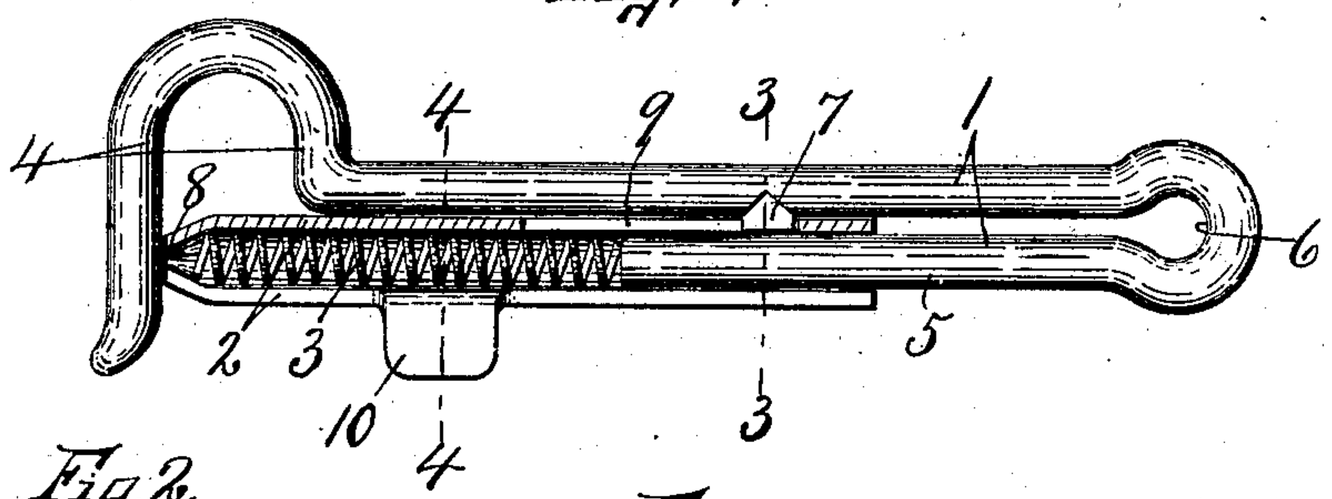


Fig. 2.

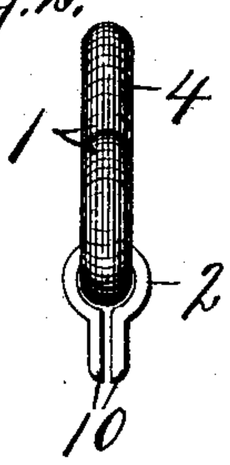


Fig. 3.

Fig. 4.

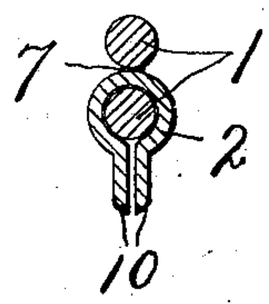


Fig. 5.

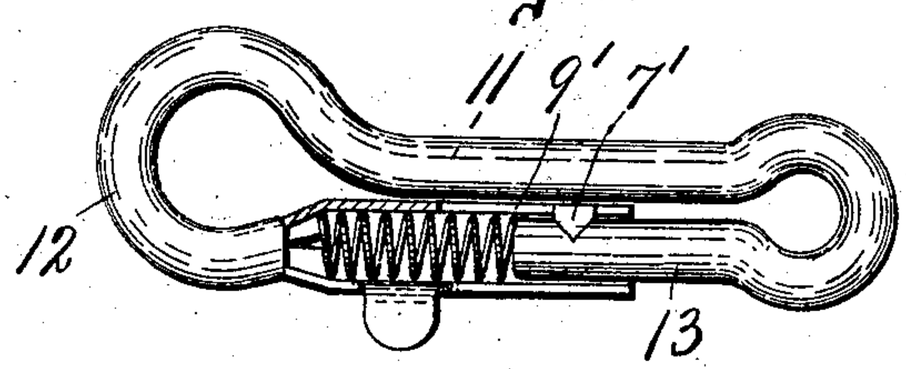


Fig. 6.

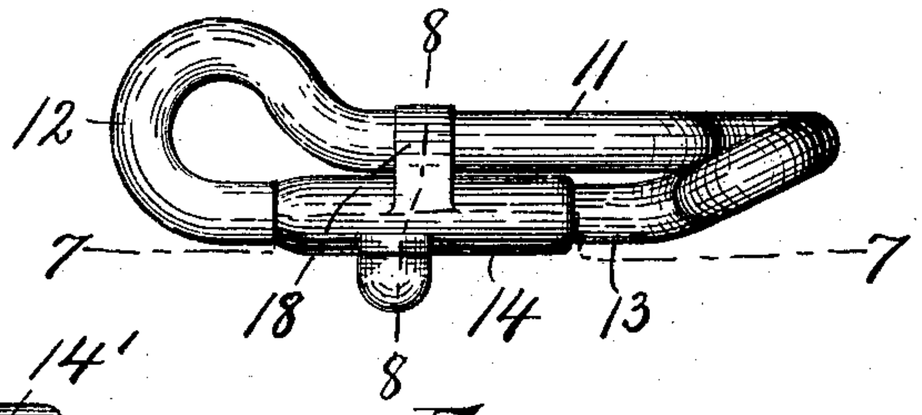


Fig. 8.

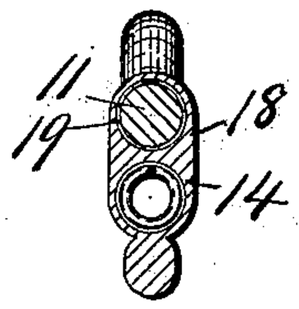


Fig. 9

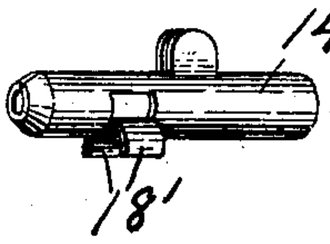
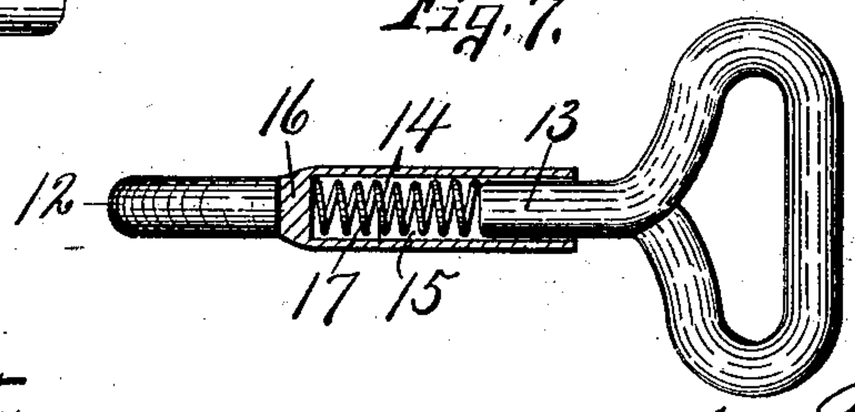


Fig. 7.



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UNITED STATES PATENT OFFICE.

JERREY W. COLLINS, OF SHERRILL, NEW YORK, ASSIGNOR TO ONEIDA COMMUNITY, LIMITED, OF KENWOOD, NEW YORK, A CORPORATION OF NEW YORK.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 720,673, dated February 17, 1903.

Application filed March 25, 1902. Serial No. 99,871. (No model.)

To all whom it may concern:

Be it known that I, JERREY W. COLLINS, of Sherrill, in the county of Oneida, in the State of New York, have invented new and useful Improvements in Snap-Hooks, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in snap-hooks, technically known as a "snap," adapted for various purposes for which a detachable lock or connection is required.

One of the objects of this invention is to simplify the construction and to thereby reduce the cost of manufacture and at the same time to produce a snap which is durable and efficient in use, another object being to construct the snap with as few parts as possible.

To this end the invention consists in the combination, construction, and arrangement of the parts of a snap-hook, as hereinafter fully described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation, partly in section, of a snap-hook embodying the various features of my invention. Fig. 2 is an end elevation of the snap seen in Fig. 1. Figs. 3 and 4 are sectional views taken, respectively, on lines 3 3 and 4 4, Fig. 1. Figs. 5 and 6 are side elevations of slightly-modified forms of my invention, the sleeve in Fig. 5 being in section. Figs. 7 and 8 are sectional views taken, respectively, on lines 7 7 and 8 8, Fig. 6; and Fig. 9 is a perspective view of a further modified form of sleeve.

Similar reference characters indicate corresponding parts in all the views.

In the drawings, Figs. 1 to 4, inclusive, I have shown a snap consisting of a bar 1, a sleeve 2, and a spring 3, the bar 1 terminating at one end in a hook 4, and its other end is returned or bent upon itself for forming a guide bar or extension 5, which is arranged substantially parallel with the main body of the snap, the junction of the extension 5 with the main body being arranged to form an eye 6, which is adapted to receive a suitable pivotal pin or screw for fastening the snap to any desired article with which it may be used. This snap may be used for any desired purpose, such as a gate-hook or lock for the lids of receptacles, the eye 6 being adapted to receive any form of fastening means, such as a staple or bolt, upon which the snap may readily swing. It is evident, however, that this eye 6 may be elongated, as seen in Figs. 6 and 7, to receive the strap or other portion of a harness, or the snap may be used in connection with the links of a chain for various purposes. The hook 4 forms a continuation of the bar 1, and although I have shown said hook as adapted for a gate or lid lock it is evident that this hook may be otherwise formed and may be bent in the form of an eye, as seen in Figs. 5 and 6. The intermediate portion of the main body of the bar 1 is formed with a lug 7, which is stamped or pressed outwardly from the stock forming the main body and is adapted to hold the sleeve 2 from rotation in any desired manner, hereinafter described. This sleeve 2 is preferably formed from a single piece of sheet metal, one end being crimped or partially closed at 8 for forming an abutting face adapted to abut against the free extremity of the hook 4, said inwardly-crimped or partially-closed end also forming a shoulder, which forms a convenient seat for one end of the spring 3. The other end of the sleeve is adapted to receive the extension 5 and is reciprocally movable thereon, being provided with a slot 9, which receives the lug 7 and prevents the rotation of the sleeve, this slot being of sufficient length to permit the sleeve to be moved endwise toward and away from the free extremity of the hook 4. This sleeve is bent in the form of a cylinder, and its meeting edges are provided with outwardly-projecting lugs 10, which form a convenient handpiece, whereby the sleeve may be moved endwise against the action of the spring 3, as in the act of opening the snap. This spring is inserted in the sleeve, one end being seated against the contracted end 8 of the sleeve, and is tensioned to normally force the sleeve into contact with the free end of the hook for closing the loop.

It is evident from the foregoing description that the main body, extension 5, hook 4, and eye 6, as well as the lug 7, are all formed from

a single piece of wire and that the sleeve 2, shoulders 8, and lugs 10 are formed from a single piece of sheet metal, thus forming a snap-hook with only three parts—the bar 1, sleeve 2, and spring 3—which are economically manufactured, are readily assembled, and form a durable and efficient snap.

In Figs. 5 to 8, inclusive, I have shown a snap consisting of a main body 11, terminating at one end in a hook 12, the opposite end of said main body being returned upon itself for forming an extension 13, the free end of the hook and said extension being in substantial alinement with each other, and the extension, Fig. 5, having a lug 7′ entering a slot 9′ in the sleeve.

In Figs. 6 to 8, inclusive, I have shown a slightly-modified form of sleeve 14, which is formed from a solid piece of metal drilled inwardly at one end a part of its length for forming a socket 15 and a closed end 16, a suitable spring 17 being arranged in the socket between the end face of the extension 13 and the closed end 16, said spring being tensioned to force the closed end against the end face of the free extremity of the hook 12. This modified form of sleeve is provided with a lateral extension 18, which is provided with an eye 19 to receive the main body 11 of the snap and forms an additional guide to prevent the rotation of the sleeve upon the extension 13, this extension also serving to additionally hold the sleeve in operative position.

In Fig. 9 I have shown a sleeve 14′, adapted to be used on the extension seen in Figs. 6 to 8, inclusive, said sleeve being formed from a single piece of sheet metal and provided with wings 18′, stamped out from the body of the metal and adapted to lie upon the main body 11 of the bar to prevent rotation of the sleeve.

The operation of my invention will now be readily understood upon reference to the foregoing description and the accompanying drawings, and it will be noted that some change may be made in the detail construction and formation of the parts of the snap without departing from the spirit thereof. Therefore I do not limit myself to the precise form and arrangement shown and described.

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

1. A snap-hook comprising arms rigidly united at one end, one of the arms terminating in a hook, a split sleeve slidable on the other arm and having portions of its meeting edges bent outwardly for forming a handpiece.

2. A snap-hook comprising arms rigidly united at one end, one of the arms terminating in a hook, a split sleeve slidable on the other arm and having its meeting edges formed with outturned lugs for the purpose described and a spring within the sleeve and acting to force the same toward the end of the hook.

3. A snap-hook comprising arms rigidly united at one end, one of the arms terminating in a hook, a sleeve slidable lengthwise on the other arm and having one end partially closed and adapted to abut against the end of the hook, and a spring acting to close the sleeve against said hook.

4. A snap-hook comprising a continuous bar terminating at one end in a hook and having an intermediate fin, the other end being bent toward the hook, a longitudinally-movable sleeve guided on said other end and provided with a slot receiving the fin for the purpose set forth.

5. A snap-hook comprising a bar terminating at one end in a hook and having its other end bent back upon itself, a sleeve mounted on the latter end and movable endwise toward and away from the hook, said sleeve having a lengthwise slot, a fin on the bar projecting into the slot, and a spring acting on the sleeve to force it toward the hook for the purpose set forth.

6. A snap-hook comprising a bar terminating at one end in a hook and having its other end bent back upon itself, a fin stamped out from the intermediate stock of the bar, a sleeve encircling the latter end of the bar and movable endwise toward and away from the hook, said sleeve having a lengthwise slot receiving the fin, and a spring acting against the sleeve to force it toward the hook for the purpose described.

In witness whereof I have hereunto set my hand this 19th day of March, 1902.

JERREY W. COLLINS.

Witnesses:
STEPHEN R. LEONARD,
SHERIDAN S. ELDRIDGE.