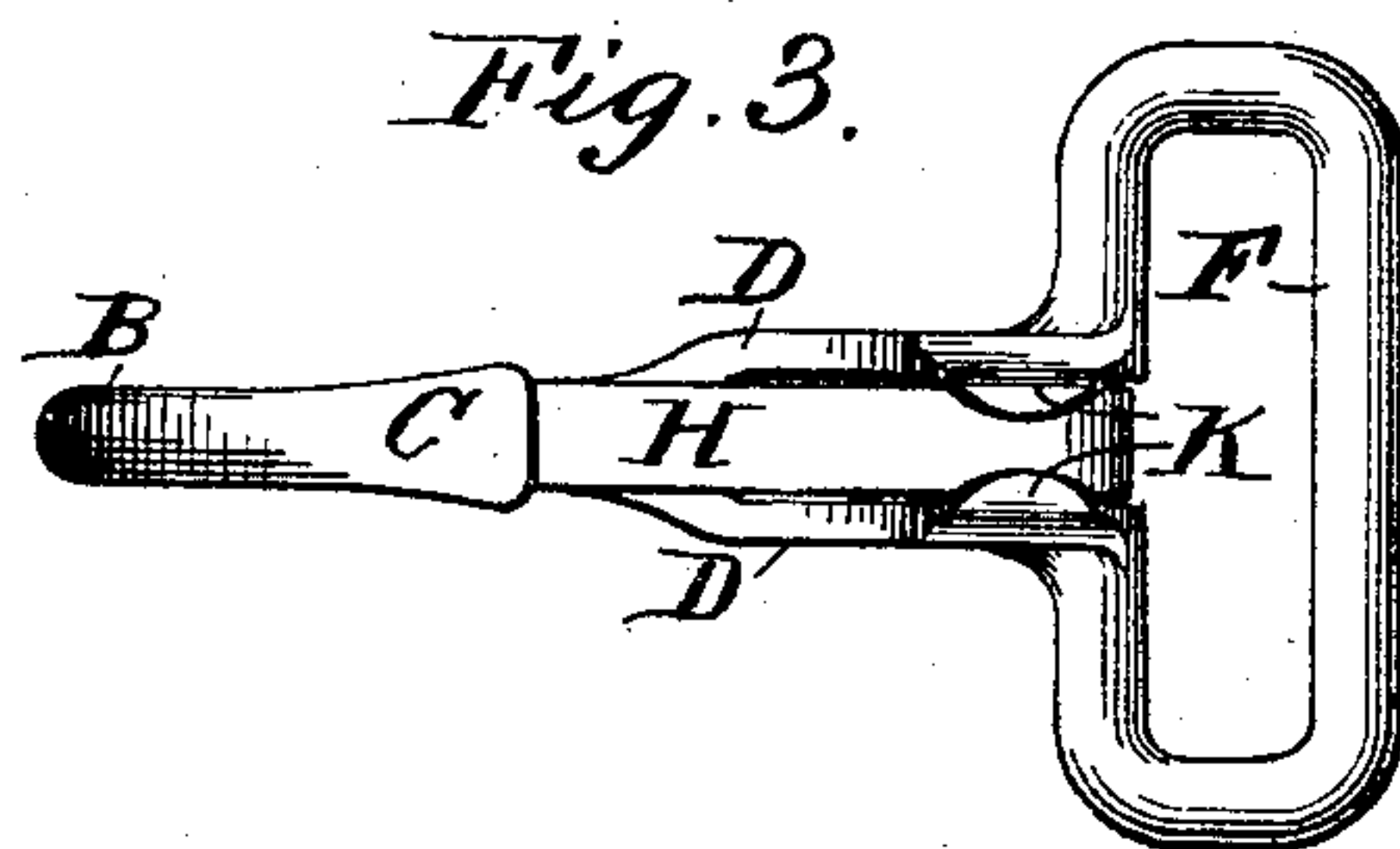
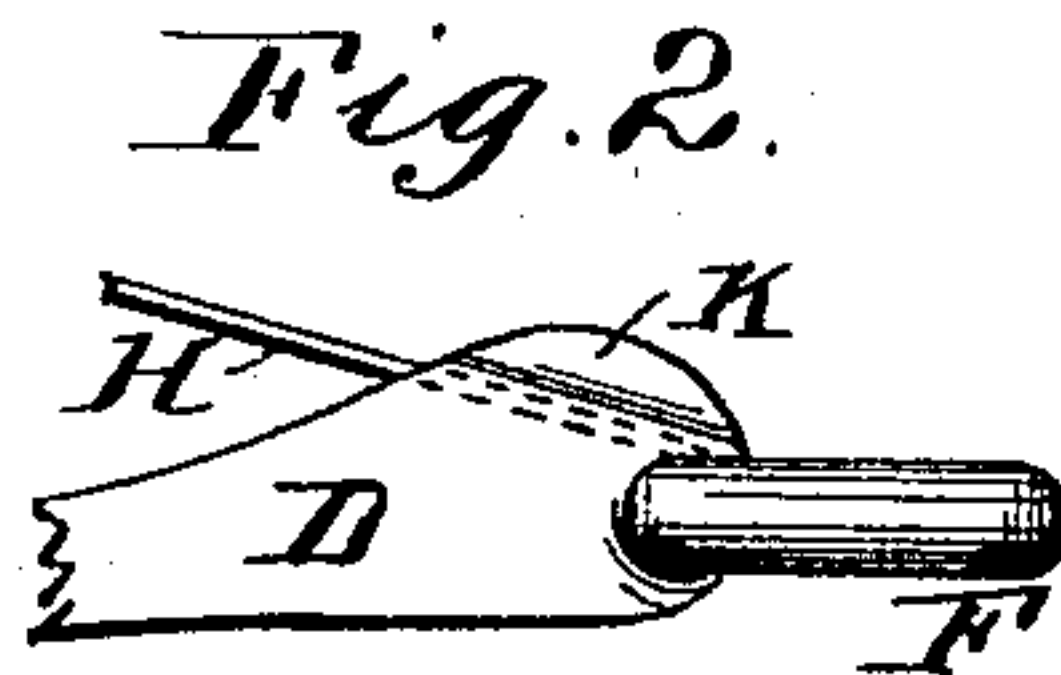
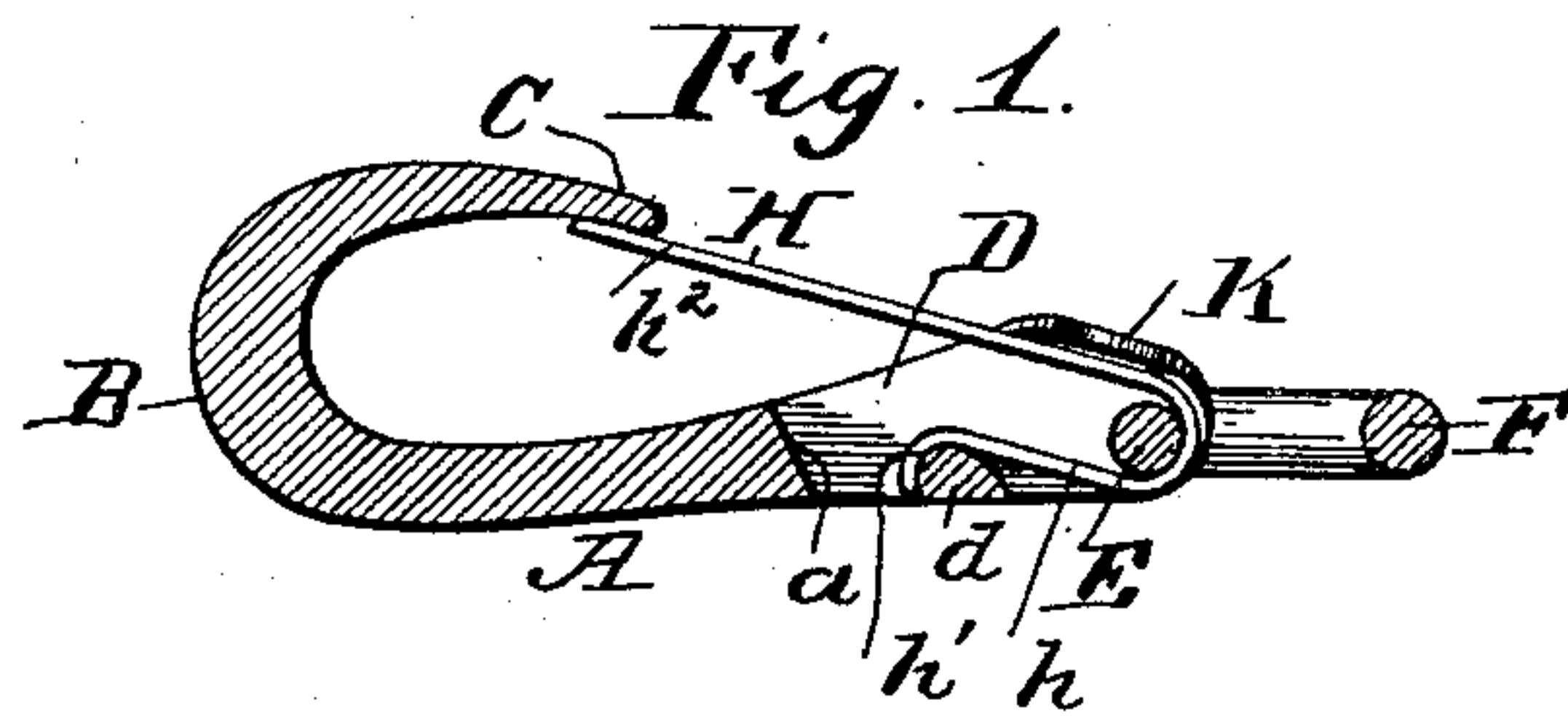


(No Model)

J. C. COVERT.
SPRING TONGUE SNAP HOOK.

No. 585,085.

Patented June 22, 1897.



Witnesses,
Geo. H. Milner
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Inventor,
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UNITED STATES PATENT OFFICE.

JAMES C. COVERT, OF WATERVLIET, NEW YORK.

SPRING-TONGUE SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 585,085, dated June 22, 1897.

Application filed March 1, 1897. Serial No. 625,585. (No model.) Patented in Canada April 3, 1897, No. 55,505.

To all whom it may concern:

Be it known that I, JAMES C. COVERT, a citizen of the United States, residing at Watervliet, in the county of Albany and State of New York, have invented certain new and useful Improvements in Spring-Tongue Snap-Hooks, (for which I have obtained Letters Patent in Canada, the same being numbered 55,505 and dated April 3, 1897;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in spring-tongue snap-hooks; and it is embodied in the construction and arrangement of parts hereinafter described, and definitely pointed out in the claims.

The invention relates, primarily, to improvements in that class of spring-tongue snap-hooks wherein a U-shaped spring is employed, the same being held in place by means which avoid the use of rigid connections between the frame and spring, such as rivets or flanges.

Heretofore it has been found necessary and expedient to carry the upper edges of the cheek-pieces or side bars of the frame or casting upward to points above the plane of the spring-tongue, so that the latter would be properly guided and held from transverse movement, thereby maintaining the tip of the tongue in proper relation to the nose of the hook. In such forms, however, a vigorous pull on a ring or hook, secured in the snap in the direction of the loop of the hook, had a tendency to bend the spring-tongue upward until it escaped the nose of the hook, in which condition the snap is useless. To overcome such defects, it has been suggested heretofore to cast small lateral lugs on the inner faces of the cheeks, having their ends adjacent to each other. In this form the cheeks or side bars are cast sufficiently far apart to permit the spring-tongue to pass between the lugs. The cheeks are then forced together until the ends of the lugs overhang the upper face of the spring-tongue. In pressing the cheeks together in such a structure it has been found quite impossible to press them equally, so as to have both an equal distance from the sides of the spring, and in many cases the cheek

on one side is forced into contact with the edge of the spring, creating a binding engagement, which materially interferes with the necessary depression of the spring-tongue. Again, the lugs being cast on the sides of the cheeks cannot be bent up or down, being of cast metal and of small diameter, without breaking. I have overcome the defects heretofore existing in prior devices by utilizing the entire upper edge of the cheek-pieces, thereby not only rendering the device much more substantial and efficient, but also greatly reducing the expense and trouble in forming the castings.

One feature of the invention is therefore the improvement in securing the tongue against upward movement.

Another feature in the invention is in the employment of a well-defined hook on the lower edge of the U-shaped spring, which takes over a correspondingly-shaped bar, so that the spring cannot be forced backward, and the use of back-stops or lugs therefore wholly dispensed with.

I have shown a preferred form of my invention in the accompanying drawings, wherein—

Figure 1 is a longitudinal section of a hook. Fig. 2 is an end elevation of the rear portion thereof, and Fig. 3 is a plan view of the hook.

In the drawings, A designates the body of the hook, terminating at one end in the hook B, having its nose C arranged in the usual manner.

D designates the side bars or cheeks extending upwardly at the rear, as is usual, and separated one from the other to form an extended recess or chamber between. These side bars or cheeks are connected at their lower edges by cross-bar *d*, having a rounded or curved forward face, the same being located a sufficient distance from the rear wall *a* of the body A to leave an intervening open space.

E designates the rear cross-bar connecting the rear portions of the cheeks, and F designates the usual loop.

The spring H consists of a lower short arm *h*, having its end curved into a well-defined hook *h'*, the curvature of which corresponds to that of the bar *d*, so that the hook takes over the bar and forms a positive hooking means against rearward movement of the

spring and one wherein over or undue pressure on the tongue portion of the spring in a rearward direction will not cause the hook to rise or slide over the cross-bar. This feature
 5 of the invention is important for the reason that it is impossible to disengage the spring after it is in position, and, further, for the reason that it avoids the use of back-stops or lugs, which are usually employed, the same
 10 being cast on the rear of the cheeks back of the bend of the spring.

It has heretofore been suggested to turn the end of the spring down into a cavity, but in such cases experience has demonstrated that
 15 the turned-down end will move up over the wall of the cavity, and therefore all hooks made in that way required the back-stops or end lugs to hold the spring in place.

The part h^2 of the spring which constitutes
 20 the tongue is carried forward and its tip or end is placed below the nose C of the hook, as is usual.

In the construction of this class of snap the cheek or side bars have usually been of uniform thickness throughout and project above
 25 the plane of the tongue h^2 , so as to guide the latter and prevent transverse movement, even when pressure is applied to the under face of the tongue. In view of the fact that this usual
 30 and necessary projecting edge portion of the cheeks was made the same thickness as the remaining portion of the cheeks it is difficult to bend the same without bending that portion immediately below the plane of the
 35 tongue, which resulted in binding the spring-tongue tightly between the cheeks and thereby rendering the device practically useless.

To utilize the projecting portions of the cheeks as a means to prevent the upward
 40 movement of the spring-tongue when pressure is placed against its under side, which would result in the end of the spring escaping from below the nose, I bevel or reduce the projecting portions of the cheeks, as at
 45 K, starting at a point on a plane with the upper face of the spring (shown in Fig. 2) and continuing the bevel throughout the entire projecting portion. By this means wings are
 50 formed of a less thickness than the remaining portions of the cheeks, the wings being

located above the plane of the spring-tongue. I then by rollers or other suitable means bend the beveled edges or portions of the cheeks over and above the upper face of the spring-tongue, as shown, and form elongated holding-stops for the tongue. The relative difference in the thickness of the cheeks and their reduced projecting portions permits the bending or rolling over of the wings without bending in the cheek portions.
 55 60

While I do not broadly claim the placing of a bridge or lug above the spring-tongue, yet I believe I am the first to ever utilize the cheek portions above the plane of the spring for the purposes specified.
 65 70

I am aware that slight alterations can be made without departing from the nature and principle of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—
 75 80

1. In a spring-tongue snap-hook, a body and hook portion, the spaced-apart cheek portions having overhanging or bent-in upper edges, and a U-shaped spring loosely held between the cheeks its tongue portion located below the overhanging edges of the cheeks.
 85 90

2. In a spring-tongue snap-hook, a body and hook portion, the spaced-apart cheek portions having reduced overhanging upper edges, and a U-shaped spring loosely held between the cheeks and its tongue portion located below the overhanging edges of the cheeks.

3. A spring-tongue snap-hook consisting of a body and hook portion, the separated cheeks, a U-shaped spring having one end engaging the nose of the hook, and its opposite end formed into a curved retaining-hook, and a hooking projection between the cheeks having a portion fashioned to conform substantially to the curvature of the spring-hook and over which the latter engages, substantially as described.
 95

In testimony whereof I affix my signature in presence of two witnesses.

JAMES C. COVERT.

Witnesses:

D. G. STUART,
 L. S. BACON.