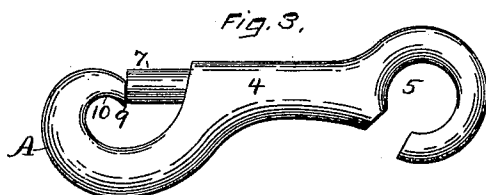
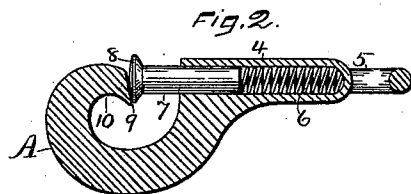
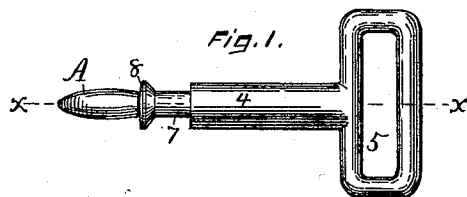


(No Model.)

F. J. HERRICK.
SNAP HOOK.

No. 466,136.

Patented Dec. 29, 1891.



Witnesses,
John Edwards W.
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Inventor,
Frank J. Herrick.
By James Shepard Att

UNITED STATES PATENT OFFICE.

FRANK J. HERRICK, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE
NORTH & JUDD MANUFACTURING COMPANY, OF SAME PLACE.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 466,136, dated December 29, 1891.

Application filed January 27, 1891. Serial No. 379,307. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. HERRICK, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Snap-Hooks, of which the following is a specification.

My invention relates to improvements in snap-hooks; and the objects of my improvement are cheapness and convenience of manufacture, increased utility, and efficiency in the finished product.

In the accompanying drawings, Figure 1 is a front elevation of my snap-hook. Fig. 2 is a central longitudinal section of the body of the hook on line *x x* of Fig. 1, the spring and tongue being shown in elevation; and Fig. 3 is a side elevation of one of my snap-hooks in a somewhat different form.

A designates the hook, 4 its barrel, and 5 the loop or eye for convenience of attaching the hook to whatever it may be used upon. I make the barrel with a smooth round bore, which may be drilled or cast, and then reamed out, so as to bring it into a smooth cylindrical form without any angular seams or grooves. Within the barrel I place an ordinary spiral spring 6 and a smooth cylindrical tongue or pin 7, the body of which is snugly fitted to the bore of the barrel, and the end of which, when forced outwardly, bears against the face at the end of the hook. The axis of this tongue and the bore of the barrel is outside of the center of the face of the hook, against which the end of the pin or tongue abuts. This pin may be of the same size for its whole length as its outer end, or, if desired, its outer end may be enlarged by a concentric head 8, as shown in Figs. 1 and 2. In both cases the edge of the tongue at its outer end projects beyond the point of the hook and constitutes a concentric handle, by which to push back said tongue, and it always projects the same, notwithstanding the fact that said tongue may revolve. In both constructions the pin or tongue can be made of wire and of a uniform size with much greater accuracy than is possible with a cast pin or tongue, whereby a uniform and even fit will be had for the tongue and bore of the barrel. The point of the hook on the inside, as at 9, comes even

with or a little inside the greatest projection on the pin or tongue at that side, and from this projection 9 the walls of the hook slant outwardly to form a depression 10 in the hook in front of the pin or tongue and to one side of the line between the two. When the pin or tongue is provided with a head, as shown at 8 in Figs. 1 and 2, then the seam or opening between the end face of the hook and end of the pin or tongue is at the inside of the hook in the summit of a ridge, from which the sides slope in both directions, as seen most clearly in Fig. 2.

By my improvements the end of the tongue or pin projects considerably beyond the face at the end of the hook, so that said end may be easily accessible to be pressed back with one's finger or thumb or by a ring that is to be snapped into said hook. By making the depression 10 in front of the end of the hook on the inside and the projection 9 at the inside corner of said face the seam between the face of the hook and end of the pin or tongue is in line with said projection, so that when the hook is snapped upon a ring and pressure is brought to force the ring against the tongue the ring will be forced to one side of said seam by the projection 9 or by the compound projection formed by said projection 9 and head 8 of the pin or tongue, thereby preventing the ring from being held and pressed against the line between the face of the hook and end of the pin or tongue.

By making the pin or tongue of wire they may be made more nearly of uniform size than is possible in a cast tongue. By making the tongue and bore cylindrical without any groove or way in the barrel or any lateral or eccentric projection on the body of the tongue the two may be more conveniently, cheaply, and accurately fitted to each other, and when fitted will move with greater ease and accuracy than it is possible for them to do in a snap-hook whose pin or tongue is held against free revolution by a projection and guiding-groove, thereby making the tongue less liable to bind.

I claim as my invention—

1. The herein-described snap-hook, consisting of the hook and barrel having a cylindrical bore and a rigid pin or tongue fitted to slide freely therein and provided with a con-

centric handle, said bore and part of the body fitted thereto being cylindrical and thereby free from engaging projections and recesses, whereby said tongue is not only free to slide, 5 but is also free to rotate, and thereby relieved of the friction attendant upon devices to prevent rotation, substantially as described.

2. The herein-described snap-hook, consisting of the hook having a barrel, the spring, 10 the sliding pin or tongue loosely fitted within said barrel and free from all eccentric projections, and a projection 9 on the inside of said hook, with its summit substantially in alignment with the dividing line or seam between 15 the abutting faces of said hook and sliding tongue, whereby a ring within said hook, when pressed against said summit, will be necessarily forced away from said dividing-line, substantially as described, and for the purpose 20 specified.

3. The herein-described snap-hook, consisting of the hook, barrel, spring, and sliding tongue free to rotate within said barrel and having the seam between the face of the hook and end of the pin or tongue formed at the 25 inside of the hook in a projection which slopes in both directions therefrom, substantially as described, and for the purpose specified.

4. The herein-described snap-hook, consisting of a hook, barrel, spring, and sliding pin 30 or tongue free from any eccentric projections and free to rotate within said barrel, and the axis of which is on the outside of the center of the face end of the hook, substantially as described, and for the purpose specified.

FRANK J. HERRICK.

Witnesses:

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