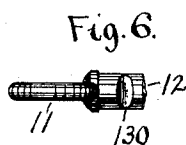
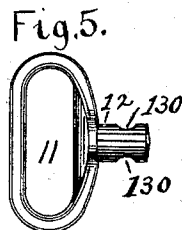
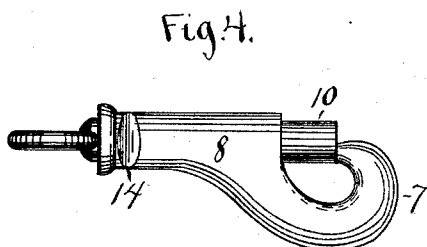
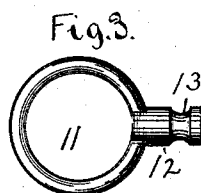
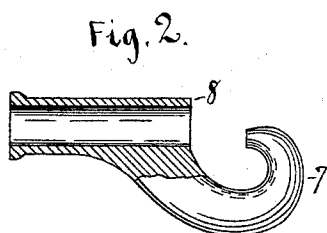
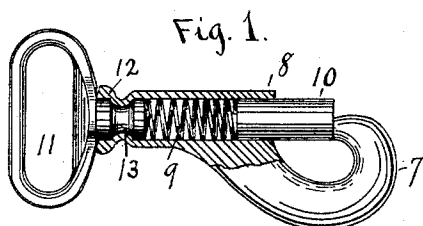


(No Model.)

F. J. HERRICK.
SNAP HOOK.

No. 485,037.

Patented Oct. 25, 1892.



Witnesses.
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Inventor.
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UNITED STATES PATENT OFFICE.

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

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 485,037, dated October 25, 1892.

Application filed May 24, 1892. Serial No. 434,170. (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 simplicity and economy in construction, whereby the parts are more readily assembled and a swivel snap-hook may be produced at a moderate cost.

In the accompanying drawings, Figure 1 is a side elevation of my snap-hook with the barrel portion in longitudinal section. Fig. 2 is a like view of the barrel and hook before the parts are assembled. Fig. 3 is a side elevation of one form of ring for my snap-hook. Fig. 4 is a side elevation of my improved snap-hook as formed with a rigid ring. Fig. 5 is a detached view of the ring for said snap-hook, Fig. 4; and Fig. 6 is an edge view of the same.

I form the hook 7 and barrel 8 of my snap-hook of a single piece of metal and with a cylindrical opening through the barrel from end to end, the end of the hook 7 being in its proper position in front of the end of the barrel, as shown. The spring 9 is of ordinary construction and the sliding bolt is preferably a plain cylindrical piece, as in my patent, No. 466,136, dated December 29, 1891. The ring or loop 11, which may be of any desired form, either round or oval, as shown in Figs. 1, 3, and 5, is provided with a shank 12, having an annular groove or neck 13, said shank, with its ring or loop, being formed separately from the barrel. The barrel when first formed has a cylindrical opening from end to end, as shown in Fig. 2. The cylindrical bolt is then placed in said barrel and projected through the same until it is stopped by the end of the hook 7. The spring is then inserted back of the bolt, and then I insert the shank of the separately-formed ring or loop. The parts are temporarily held in their proper position in a power-press or suitable machine and a portion of the barrel immediately surrounding the groove or neck 13 is struck in dies to change the barrel from the form shown in Fig. 2 to the form shown in Fig. 1, thereby

swaging the metal into the neck of the shank, so as to prevent its displacement and at the same time permit the loop and its shank to swivel or turn within the end of the barrel.

If desired to form the snap with a rigid loop or ring instead of a swivel one, I form side notches 130 in the shank 12, as shown in Figs. 5 and 6, and putting the parts together in the manner before described I swage the barrel on opposite sides at the points coincident with said notches, as at 14 in Fig. 4, to press the metal inward to fill said notches, thereby permanently securing the loop or ring within the end of the barrel. Ordinarily swivel-snaps have had their loop or ring provided with an eye cast on the end of the barrel, and all snap-hooks having a seamless cylindrical barrel, whether provided with a swiveled loop or not, have been assembled by inserting the bolt from the hook end, the hook generally being cast a little to one side of the front of the barrel to permit the bolt to be thus inserted, and after inserting the bolt the end of the hook is bent into its proper position. By my improvement the hook and seamless barrel may be first cast in proper form, the parts are assembled in a more convenient manner, and the ring or loop is separately formed and inserted, whereby I can produce a swivel-snap as cheaply or cheaper than the ordinary snap-hook.

I claim as my invention—

1. The herein-described snap-hook, consisting of the hook, the seamless cylindrical barrel, spring, and bolt, and the separately-formed ring or loop having a shank which is secured within the outer end of said barrel, substantially as described, and for the purpose specified.

2. A swivel snap-hook having the annular grooved shank 12 of its ring or loop secured within the outer end of the cylindrical barrel, with the metal in that portion thereof which surrounds the groove of said shank swaged inwardly and loosely filling said groove, substantially as described, and for the purpose specified.

FRANK J. HERRICK.

Witnesses:

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