

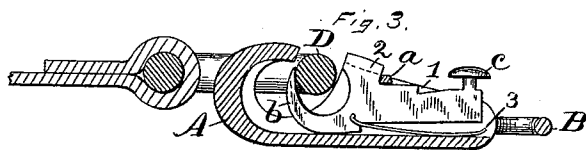
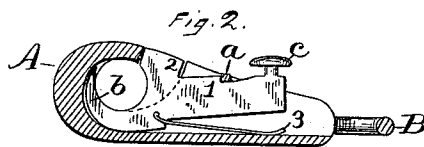
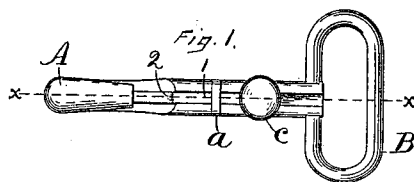
(No Model.)

C. W. PENFIELD.

SNAP HOOK.

No. 373,535.

Patented Nov. 22, 1887.



Witnesses,
John Edwards Jr.
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Att'y.

UNITED STATES PATENT OFFICE.

CHARLES W. PENFIELD, OF NEW BRITAIN, ASSIGNOR OF ONE-HALF TO W.
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SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 373,535, dated November 22, 1887.

Application filed December 18, 1886. Serial No. 221,952. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. PENFIELD, 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 that class of harness hooks or snaps which have a sliding bolt for opening and closing the hook; and the objects of my improvement are to render the article more convenient to use and to increase its efficiency.

In the accompanying drawings, Figure 1 is a plan view of my snap hook. Fig. 2 is a longitudinal section, partly in elevation, of the same on line *x x* of Fig. 1; and Fig. 3 is a like view of the same with the slide in a different position, together with the ring lying in the mouth of the hook.

The frame or body of my snap-hook has a hook, A, at one end and the usual loop or eye, B, at the other. This frame is slotted longitudinally, the slot extending into the hook A, as shown. On what is the upper edge of the frame, as illustrated in the drawings, there is a bridge or bar, *a*, extending across the slot. This is illustrated as formed of a separate piece and set in place; but it may be formed in one and the same piece with the frame.

Lying within the slot of the frame is a slide, C, having a hooked end, *b*, and a handle, *c*, at its opposite end. The upper edge of this slide is provided with two shoulders, 1 and 2, the first being for engagement with the bridge *a*, to hold the slide C in the position illustrated in Figs. 1 and 2, and the second being to limit the extent of the outward movement of said slide to the position illustrated in Fig. 3. A spring, 3, one end of which rests upon the bottom of the slot in the frame, has a constant tendency to keep the handle end of the slide elevated.

When the slide has been drawn back into the position shown in Fig. 3, it remains in that position and may be so left until wanted for use. In order to hook the snap on a ring,

it is only necessary to place the ring within the mouth of the hook, as shown in Fig. 3. The slide may then be pushed into the position shown in Figs. 1 and 2, to close the mouth of the hook for securing the ring within it; but the most natural and convenient way to move the slide into position for closing the hook is to pull on the snap and ring, so that the ring, taking hold of the hooked end of the slide, draws said slide with it as the ring enters the hook. In order to detach the ring from the snap, the handle *c* of the slide is depressed to withdraw the shoulder 1 from engagement with the bridge *a*, and the slide is then drawn out, as shown in Fig. 3, so that the ring may be removed from the mouth of the hook. The snap is then in position, ready for use again in the same manner.

From the foregoing it will be seen that the slide, in addition to its forward and backward motion lengthwise with the slot, has an oscillating motion and swings about an axis substantially coincident with the center of the eye or opening of the hook A. The slot in the frame serves as a way for the slide, while the spring acts as a frictional device to hold the slide back, with the mouth of the hook open. This result is accomplished by reason of the fact that the slide is free from pressure in the direction of its length, and that the under face of the bridge forms that part of the guiding wall or way which holds the slide in opposition to the spring.

While the hooked end *b* of the slide is a great convenience and is always preferred, it is evident that the slide may be used if the hook of said end were omitted or cut off without changing the construction of the remaining parts of the snap.

I claim as my invention—

1. The herein-described snap-hook, consisting of the frame having the end hook, longitudinally-slotted body, and the bridge or bar, and the slide adapted to move longitudinally to open and close the mouth of the hook, and to rise and fall at its outer end for engaging and disengaging said bridge, and a spring for

holding said outer end in engagement with said bar, substantially as described, and for the purpose specified.

2. The herein-described snap-hook, consisting of the frame having the end hook and longitudinal slot or way, the slide made free from spring-pressure longitudinally, and a frictional device, as the spring 3, to hold the

slide back, with the mouth of the hook open, substantially as described, and for the purpose specified. 10

CHARLES W. PENFIELD.

Witnesses:

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