

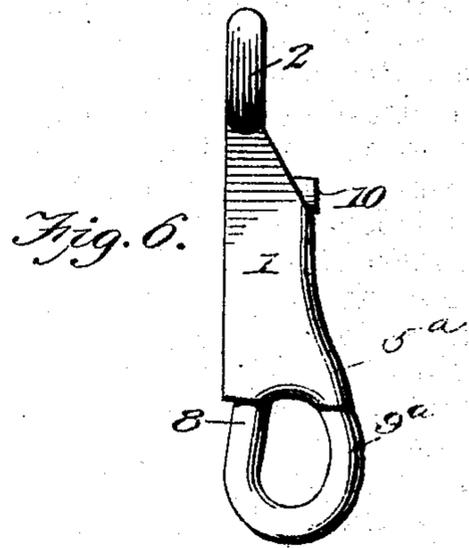
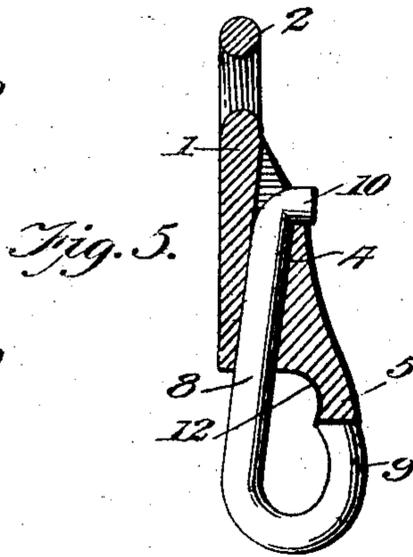
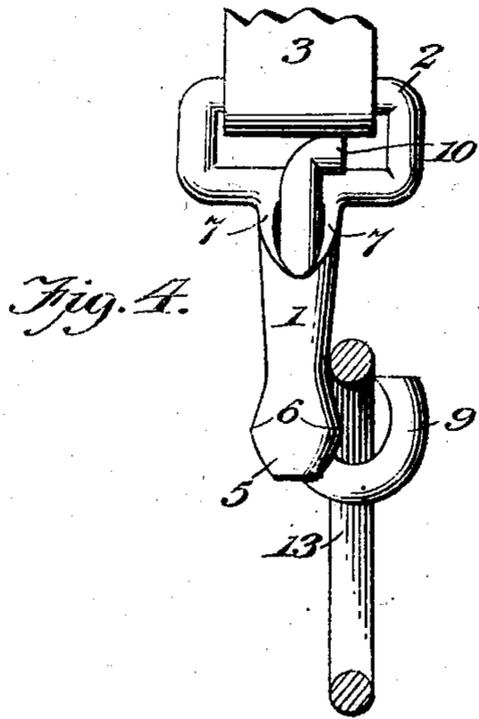
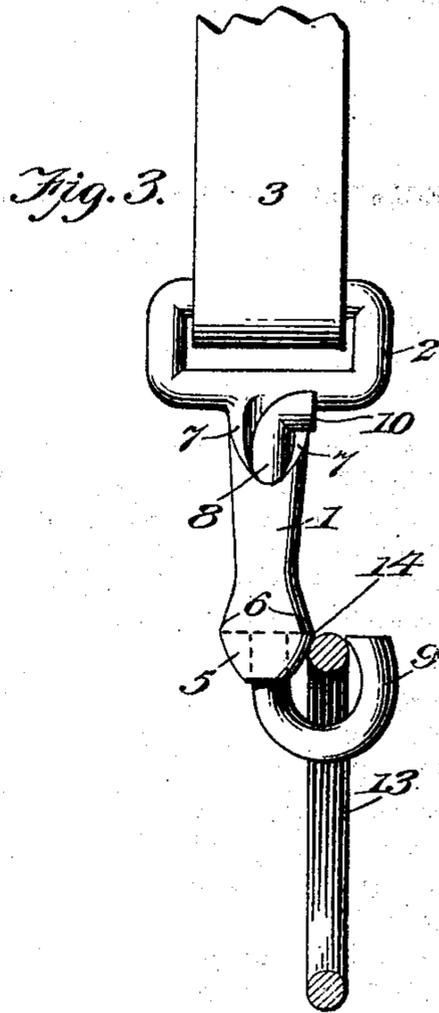
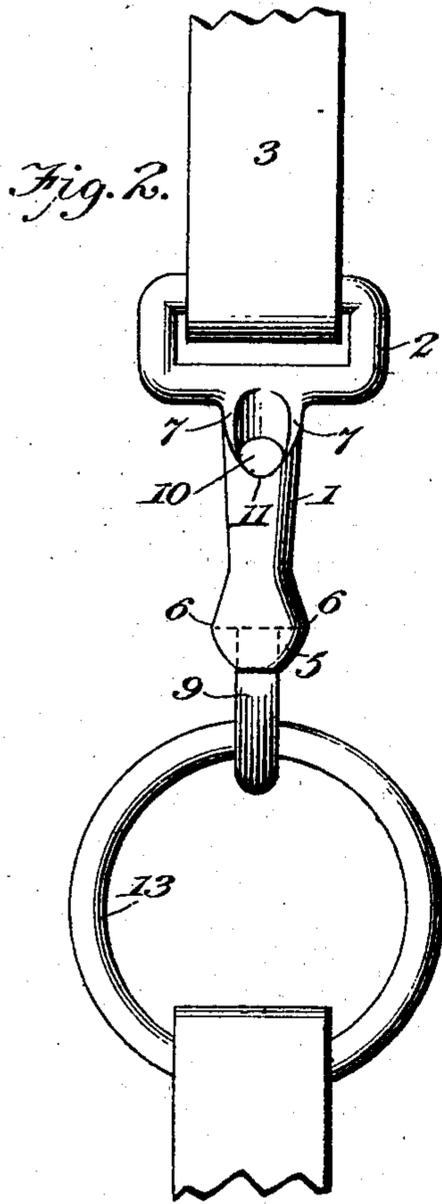
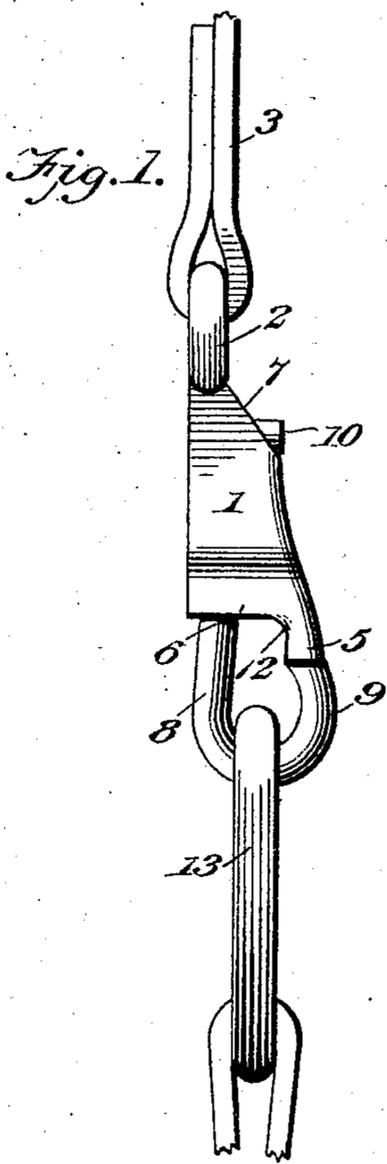
No. 693,194.

Patented Feb. 11, 1902.

E. WEBER & F. C. FREY.
SNAP HOOK.

(Application filed June 15, 1901.)

(No Model.)



Witnesses
Edmund F. McKee
H. Schmidt.

Inventors
Emil Weber
Frank C. Frey
By
Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

EMIL WEBER AND FRANK C. FREY, OF BAKER CITY, OREGON.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 693,194, dated February 11, 1902.

Application filed June 15, 1901. Serial No. 64,740. (No model.)

To all whom it may concern:

Be it known that we, EMIL WEBER and FRANK C. FREY, citizens of the United States, residing at and whose post-office address is 5 1933 Court street, Baker City, in the county of Baker and State of Oregon, have invented new and useful Improvements in Snap-Hooks, of which the following is a specification.

Our invention relates to snap-hooks; and 10 its primary object is to provide a device of this character in which the use of springs will be entirely dispensed with, thus contributing materially to the durability of the hook.

Further objects of the invention are to provide 15 a snap-hook which may be quickly and easily manipulated and to insure a reliable fastening without liability of accidental disengagement of the ring or other connection to which the hook is secured.

20 The construction and characteristic features of the invention will be fully described hereinafter in connection with the accompanying drawings, which form a part of this specification, and its points of novelty will be 25 set forth in the appended claims.

In the drawings, Figure 1 is a side elevation of a snap-hook embodying the invention with a ring connected thereto. Fig. 2 is a front elevation of the same. Fig. 3 is a front 30 elevation showing the hook turned laterally, but not elevated sufficiently to permit of the disengagement of the ring therefrom. Fig. 4 is a front elevation showing the hook turned and in raised position to permit of the disengagement of the ring. Fig. 5 is a central longitudinal section of the device, and Fig. 6 is 35 a side elevation of a slightly-modified construction of the improvement.

The frame of the device comprises a shank 40 1 and an integral loop 2, adapted to receive a strap 3 or other connection. The shank 1 is formed with a longitudinal bore 4 and a depending extension 5, the latter serving as a stop for the hook, as will be more fully referred to. The lower end of the shank 1 is 45 flared and beveled to form projecting shoulders 6, and the upper end of said shank is beveled to form cam-surfaces 7.

8 designates the hook proper, comprising a 50 rod inserted into the bore of the shank and bent at its lower end to form the hook 9 and at its upper end to form a stop-lug 10, adapt-

ed to engage the upper edge of the front wall of the shank. The under surface 11 of the stop-lug 10 is of cam shape, so that when the 55 hook is turned or twisted to either side the said lug will ride up one or the other of the cam-surfaces 7, thus moving the hook 8 longitudinally. The inner surface 12 of the extension 5 is hollowed out to afford play for the 60 ring 13, attached to the hook.

The utility and operation of the improvement will be readily understood from the illustration in the drawings and may be explained 65 as follows: To connect the hook to the ring 13, the hook is given a full turn or twist to one side, which causes the cam-face of the stop-lug 10 to ride up one or the other of the 70 cam-surfaces 7 of the shank, bringing the hook 9 to the position shown in Fig. 4, after which the ring is snapped over the hook and the latter is turned back into engagement with the extension 5, as shown in Figs. 1, 2, 75 and 5. It will be obvious that as long as any pulling strain is imposed upon the ring 13 the stop-lug 10 will be held firmly in the position shown in Figs. 1, 2, and 5. If, however, such strain is relieved and a slight lateral 80 movement of the ring 13 is permitted, accidental disconnection of the ring and hook will not result, for the reason that the space between the end of the hook 9 and the flared adjacent shoulder 6 of the shank will be less than the sectional diameter of the ring 13, as 85 clearly illustrated at 14 in Fig. 3. To release the hook from its engagement with the ring, it is necessary that the hook be turned laterally to its full limit of movement, as illustrated in Fig. 4, which widens the space 90 between the end of the hook 9 and the adjacent shoulder 6 sufficiently to allow the ring to be released.

The modified construction shown in Fig. 6 is similar to that shown in the other figures, 95 excepting that the extension 5^a is shortened and the hook 9^a is correspondingly elongated. This affords a more extended lateral play of the connecting-ring.

It will be apparent that we provide a secure, simple, inexpensive, and durable snap 100 without the employment of springs, rivets, screws, or other details commonly used in spring snap-hooks and that the entire device as above described comprises only two co-

operating parts, which may be readily manipulated to connect or disconnect the hook.

We claim—

1. A snap-hook comprising a bored shank
5 having an integral loop at one end and beveled adjacent to said loop to form cam-surfaces, and formed at its opposite end with an extension; and a hook consisting of a rod
10 curved at one end to form a hook adapted to bear against said extension, and bent at its opposite end to form a stop-lug adapted when turned to ride upon one or the other of the cam-surfaces of the shank.

2. A snap-hook, comprising a shank formed
15 with a longitudinal bore, and beveled at one end to form cam-surfaces and having an ex-

tension and laterally-projecting shoulders at its opposite end; and a hook proper extending through the shank, curved at one end to form the hook and bent at its opposite end to form a stop-lug having a cam-face.

In testimony whereof we affix our signatures in presence of witnesses.

EMIL WEBER.
FRANK C. FREY.

Witnesses as to Weber:

ELMER W. REYNOLDS,
HERMANN SURBECK.

Witnesses as to Frey:

HUGH M. STERLING,
B. G. FUNK.