(No Model.)

R. A. BREUL.

SNAP HOOK.

No. 428,799. Patented May 27, 1890.

Fig. 1.

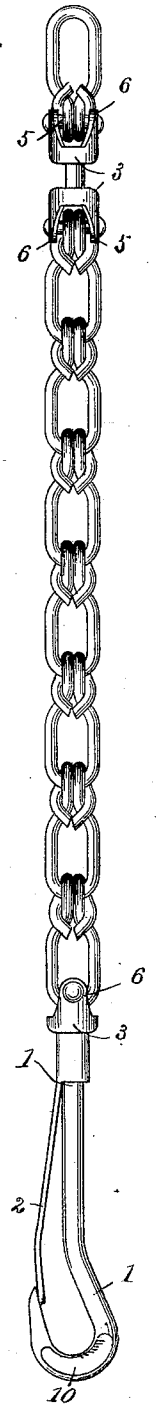


Fig. 4.

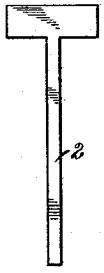


Fig. 2.

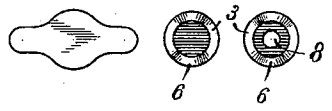


Fig. 3.

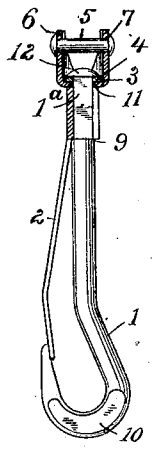


Fig. 6.

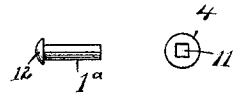
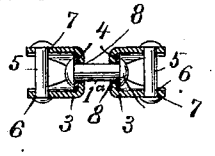


Fig. 5.



WITNESSES

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RICHARD A. BREUL, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE BRIDGEPORT CHAIN COMPANY, OF SAME PLACE.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 428,799, dated May 27, 1890.

Application filed January 24, 1890. Serial No. 337,973. (No model.)

To all whom it may concern:

Be it known that I, RICHARD A. BREUL, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Snap-Hooks; 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.

My invention has for its object to provide a combined snap-hook and swivel that shall be strong and practically indestructible, and in which the cost of production shall be reduced to the minimum.

With these ends in view I have devised the simple and novel construction of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to denote the several parts.

Figure 1 is an elevation of a piece of chain illustrating the use in connection therewith of one of my novel snap-hooks; Fig. 2, a view illustrating the steps in the process of making the swivel-heads; Fig. 3, an elevation of a snap-hook detached, the swivel-head and base of the spring being in section; Fig. 4, a view of the spring detached; Fig. 5, a sectional view showing two of the swivel-heads used together to form a double swivel; and Fig. 6 is a view of the shank and washer of a double swivel detached.

The chain forms no portion of my invention, it being of course apparent that any suitable chain may be used, although in practice I preferably use, and have illustrated in the drawings, the chain described and claimed in Letters Patent No. 359,054, granted to me March 8, 1887.

My novel snap-hook consists, essentially, of a hook, (denoted by 1;) a spring, (denoted by 2;) a swivel-head, (denoted by 3;) a washer within the swivel-head, (denoted by 4,) and a rivet through the ears of the swivel-head, (denoted by 5.)

The bow of my novel snap-hook is preferably flattened on its sides, as at 10, so as to give the greatest possible strength at just the point where it is required, and the shank, which I have denoted by 1^a, is squared at the end, as clearly shown in Fig. 3. The spring is formed from a T-shaped blank, (see Fig. 4,) the arms forming the base of the spring being clasped around the squared end of the shank, the inner end of the base of the spring when clasped about the shank resting against a shoulder 9 at the inner end of the squared portion thereof. The swivel-head is preferably made more or less cup-shaped, as shown in the drawings. When formed to shape, each swivel-head is provided with a pair of ears 6, having holes 7 through them, and at the bottom of each head is a round hole 8 of just sufficient diameter to receive the squared end of the shank and permit the latter to turn within it. The washers which lie within the swivel-heads are provided with squared openings 11, which just receive the shank, so that the washer must turn at all times with the shank.

The parts are assembled as follows: The base of the spring is clamped about the squared end of the shank, the inner end of the base resting against shoulder 9. The end of the shank is then passed through the swivel-head, a washer having a squared opening placed over the shank within the swivel-head, and then the end of the shank is headed down upon the washer, as at 12. This leaves the swivel-head held between the washer and the outer end of the base of the spring, but free to turn upon the shank. This locking of the washer against turning on the shank insures that all the wear shall be upon the washer, thereby preventing the possibility of the heading being worn away and allowing the parts to become separated. The chain is connected to the snap-hook by placing the end link between ears 6 of the swivel-head, and then passing a rivet 5 through both ears and the link and heading down the rivet upon the outer side.

Having thus described my invention, I claim—

A snap-hook consisting of a hook proper having a squared shank, a T-shaped spring, the base of which is clasped about the squared end of the shank, a swivel-head having a pair

of ears and a round opening through which the shank is passed, a washer in the base of the swivel-head having a squared opening to fit the shank, so as to turn with it, said shank being headed down upon the washer, and a rivet through the ears of the swivel-head, by which the snap-hook is attached to a chain.

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

RICHARD A. BREUL.

Witnesses:
JOHN CUMMINGS,
EDWIN H. WILLIAMS.