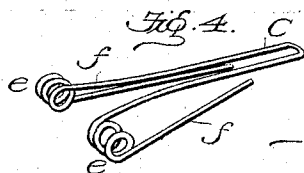
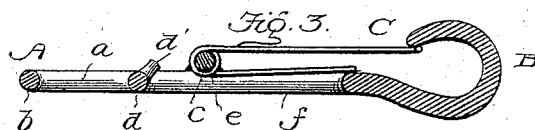
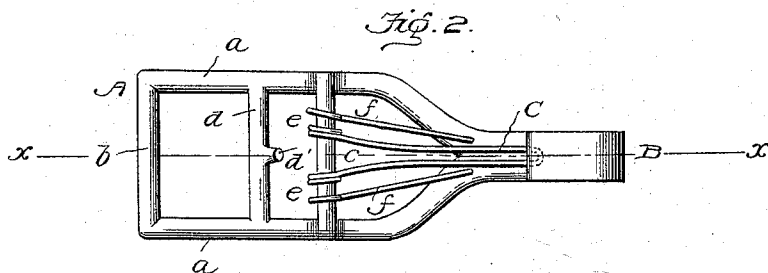
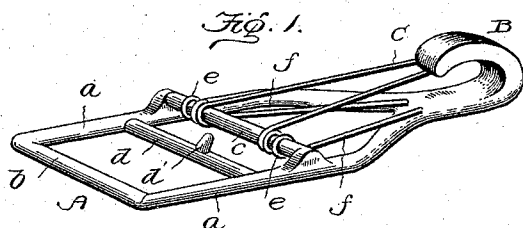


(No Model.)

J. W. CRANDALL.
COMBINED SNAP HOOK AND BUCKLE.

No. 570,277.

Patented Oct. 27, 1896.



Witnesses:

W. C. Cashie
H. A. Barlow

John W. Crandall
- Inventor -

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- Atty's -

UNITED STATES PATENT OFFICE.

JOHN W. CRANDALL, OF JEFFERSONVILLE, INDIANA.

COMBINED SNAP HOOK AND BUCKLE.

SPECIFICATION forming part of Letters Patent No. 570,277, dated October 27, 1896.

Application filed January 22, 1896. Serial No. 576,443. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. CRANDALL, a citizen of the United States, residing at Jeffersonville, in the county of Clark and State of Indiana, have invented certain new and useful Improvements in a Combined Snap Hook and Buckle; 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 relates to improvements in combined snap hooks and buckles, and the object that I have in view is to provide a simple and inexpensive construction in which the buckle-frame and the hook proper shall constitute a single integral part or casting.

With these ends in view my invention comprises a snap-buckle having the buckle-frame cast in a single piece with the turned-up or overhanging part of the snap-hook, combined with the snap tongue and spring made from a single length of stout spring-wire which is bent to form two coiled eyes, a single tongue, and two free spring-arms, all of which parts are arranged so that the coiled eyes will fit on a supporting-bar of the frame to hold the tongue and spring positively in place and enable the spring-arms to bear against the cast frame while the tongue bears or takes against the beak or free end of the hook, all as will be hereinafter fully described and claimed.

To enable others to understand my invention, I have illustrated the preferred embodiment thereof in the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a perspective view of my improved snap-buckle. Fig. 2 is a plan view thereof. Fig. 3 is a longitudinal sectional view on the plane indicated by the dotted line *xx* of Fig. 2. Fig. 4 is a detail perspective view of the spring and tongue.

Like letters of reference denote corresponding parts in all the figures of the drawings.

The buckle-frame A and the hook B are cast in a single piece of metal. The buckle-frame A consists of the side bars *a*, the end bar *b*, the tongue-bar *c*, and the stud-bar *d*, which are integral with each other, and the side bars *a* are brought or merged together and extended, as shown, to form the hook B,

which is curved or returned back upon itself. The stud-bar *d* is between the end bar *b* and the tongue-bar *c*, and it lies in the same plane with the bars *a b*, as shown more clearly by Fig. 2. The tongue-bar *c* is raised above the side bars *a* and the bars *b d*, so that it lies in a plane above all the bars of the buckle-frame, to better enable the bar *c* to support the tongue in proper position to engage with the hook B.

The stud-bar *d* is provided with an upwardly projected and inclined stud *d'*, and this bar *d* is arranged at such distance from the tongue-bar *c* as to permit a strap to be easily passed around the stud-bar, so as to enable the stud *d'* to fit in an aperture in the strap and thus hold or confine the strap in the buckle-frame in a manner which will be understood by those skilled in the art to which this invention relates.

The tongue and spring is made from a single length or piece of stout spring-wire. This wire is bent or doubled to form the tongue C, consisting of two strands of wire which terminate in the coiled eyes *ee*, which are fitted on the tongue-bar *c* of the buckle-frame, and the ends of the wire from these coiled eyes are prolonged to provide the spring-arms *ff*, which are arranged to bear against a solid part of the hook B. These spring-arms *f* and the spring-tongue provide a strong spring to resist the opening of the snap-tongue and to insure the tongue remaining closed against the back of the hook B, but the tongue is adapted to yield or give when pressure is applied externally to engage the snap with a ring, buckle, or other part of a harness.

By reference to Fig. 2 of the drawings it will be noted that the side bars *a a* of the cast-metal frame are inclined inwardly or converged to join with the hook, and that these inclined parts of the side bars leave an opening or space between the bar *c* and the hook where it joins the inclined parts of the side bars. The construction of the frame with the opening or space referred to, and the position of the tongue-bar *c* above the plane of the frame-bars and the stud-bar *d*, enables the arms *f* of the spring-wire forming the tongue and spring to be readily adjusted or passed through this opening or space in the front of frame in applying the spring and

tongue in the buckle-frame. This arrangement also holds the spring in position to insure the arms *f* having proper bearing upon the base of the hook to give the spring the
5 necessary yielding action, and the tongue-bar *c* lies in a position for the strap to be easily adjusted around the tongue-bar and through the buckle-frame without material hindrance from the bar *c* or the spring fitted
10 thereon.

It is thought that the mode of using and the advantages of my improved snap-buckle will be readily understood and appreciated from the foregoing description, taken in connection with the drawings.
15

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a combined snap hook and buckle, the
20 cast-metal frame consisting of the bars *a, b*, the

hook *B* joined to the converging ends of the side bars *a* and forming an opening or space between the tongue-bar *c* and the base of the hook, the stud-bar *d* having the inclined stud
25 *d'* and the tongue-bar *c* arranged on a plane above the plane of the bars *a, b, d*, of said frame, combined with the tongue and spring bent from a continuous length of wire to form the coils or eyes *e* between the spring-arms
30 *f* and the tongue *C*, said coils or eyes being held on the raised tongue-bar *c* and spring-arms *f* bearing against the base of the hook *B*, as and for the purposes described.

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

JOHN W. CRANDALL.

Witnesses:

WM. A. MORGAN,
C. H. JOHNSON.