

(No Model.)

C. H. FARMER.  
BUCKLE.

No. 418,556.

Patented Dec. 31, 1889.

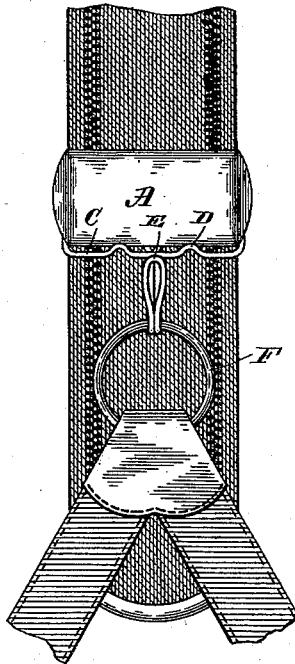


FIG. 1.

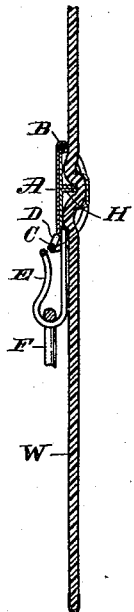


FIG. 3.

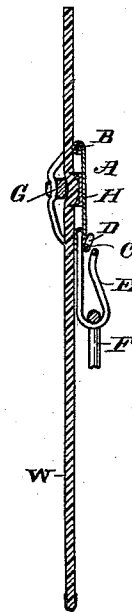


FIG. 4.

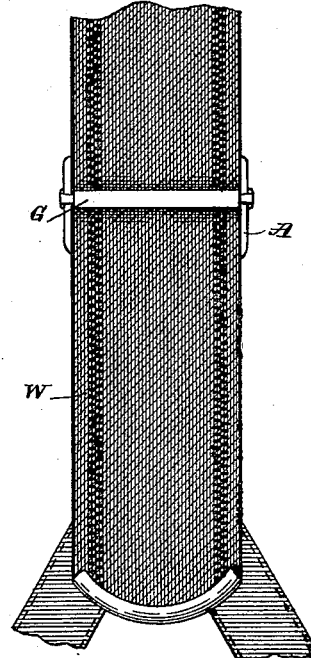


FIG. 2.

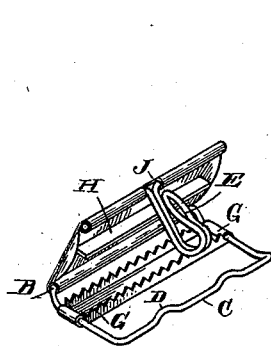


FIG. 7.

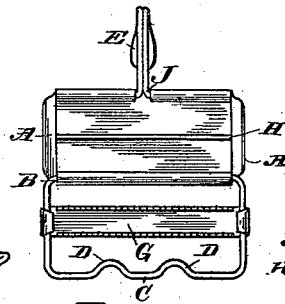


FIG. 5.

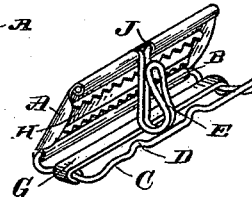


FIG. 8.

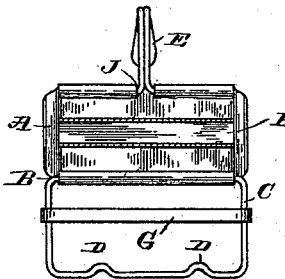


FIG. 6.

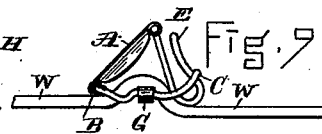


FIG. 9.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

CHARLES H. FARMER, OF NEW YORK, N. Y.

## BUCKLE.

SPECIFICATION forming part of Letters Patent No. 418,556, dated December 31, 1889.

Application filed July 12, 1889. Serial No. 317,263. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. FARMER, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Buckles and Clasps, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to the class of suspender-buckles in which the web is passed between front and rear portions of the buckle, which clasp and compress it without penetrating it by tongues or sharp prongs, the device securing itself frictionally to the web.

The peculiar feature of my improved buckle is a back frame made of wire with an intermediate cross-bar fixed horizontally thereon, in combination with a sheet-metal front plate hinged upon the top bar of said frame and a wire hook hinged in the lower edge of said plate, so as to fold on its journals and pass behind the bottom bar of the wire frame, which is bent to engage with the lower edge of the front plate and to form with the other parts a spring-lock to hold the buckle firmly in position for use. No spring-snap is required to keep the detachable ring engaged with the hook when in use, since the position of the journals of the hook in rear of the bottom bar of the wire frame is such as to bring the hook-point into substantial contact with said bar.

In the drawings, Figures 1 and 2 are front and rear views of the web and connected parts; and Figs. 3 and 4 are vertical sections of the same, showing modifications of the cross-bars. Figs. 5 and 6 show the buckle thrown wide open with a representation of the two forms of cross-bar, while Figs. 7 and 8 are perspective views of the same buckles partly folded. Fig. 9 is an edge view.

The front plate A is of polished sheet metal rolled backward at its upper edge to embrace the top bar B of the wire back-frame, and also rolled rearwardly at its lower edge to inclose the journals of and form a hinge for the doubled wire hook E, which receives the detachable ring F. The ends of the plate A are folded rearwardly to give a neat appearance and smooth finish.

The wire back-frame is nearly rectangular

in form, its lower bar C having preferably two small waves D in it, or being otherwise bent to snap over and engage frictionally the with the lower edge of the front plate when device is closed upon the web W. The back-frame has a horizontal cross-bar G fixed to its ends about midway between the bars B and C, the web passing in front of this cross-bar and in rear of the bars B and C, as shown.

The inner face of the front plate has a horizontal rib H, corresponding to the cross-bar G; the two forming a gripping device to deflect or compress the web as it passes between them. (See Figs. 3, 4, and 9.) I prefer to make one of these parts with two serrated edges and the other as a smooth bar or rib closing between them. In Figs. 3, 5, and 7 the serrations are on the edges of the cross-bar, the plain single rib being on the back of the plate A, while in Figs. 4, 6, and 8 the position is reversed. I provide for holding these parts in efficient contact with the web by bending the ends of the wire frame, so that its lower bar C may be sprung away from the upper bar sufficiently to catch in front of the lower edge of the front plate or by giving equivalent elasticity to the front plate—in either case to hold them in place temporarily.

I have adapted the wire hook E as a lever to aid in clamping the hinged parts together. Its journals J consist of the axially-diverging ends of the wire, which have bearings in the rolled-up lower edge of the plate A, so that the hook has a swinging movement. In folding or closing the buckle the body of the hook is caused to pass between the central cross-bar and the lower bar of the wire frame, as in Figs. 7, 8, and 9. Then by straightening out the hook into a vertical plane—that is, into the plane of the plate A—the hook acts as a lever to spring the bar C just under the plate A to snap onto its lower edge. The waves or bends D are the points of contact. This arrangement not only aids in bringing the parts together, but when the hook receives the ring F, to which the button-straps are secured, the downward strain tends to hold the buckle in place. Again, the tip of the hook comes close to the lower bar C, so that the ring F will not be accidentally disengaged, although no snap is employed. How-

ever, by swinging the hook slightly to the rear the wearer may quickly detach the ring with its straps whenever occasion requires.

I claim as my invention—

5 1. In a suspender-buckle or like clasp, the swinging wire hook E and the broad sheet-metal front plate A, having its upper edge rolled rearwardly and hinged upon the top bar of the back-frame and its lower edge similarly  
10 rolled and hinged to the journals of the wire hook, in combination with the back-frame and its cross-bar co-operating with a stiffening-rib of the front plate, for the purpose set forth.

15 2. The front plate A, hinged at its horizontal edges, respectively, to the back-frame and the swinging hook, in combination with such frame and hook made of wire, the back-frame being bent to give it sufficient elasticity for  
20 engagement with the lower edge of the front plate, substantially as set forth.

25 3. The sheet-metal front plate and wire back-frame hinged together at top and constructed to engage at the bottom, in combination with the wire hook E, journaled in the lower edge of the front plate and arranged to

pass in rear of the lower bar of the back-frame, the frame ends being bent toward the front for elasticity and to bring such lower bar forward of the neck or stem of the hook, 30 which serves thus as a clamping-lever to bring and keep the parts of the buckle into working position upon the web, substantially as set forth.

4. The front plate, back-frame, and wire 35 hook hinged together, as described, said plate and frame provided with the clamping-rib and toothed cross-bar, and the back-frame having waves DD in its lower bar and space between its bars G and C, and the hinged 40 hook being adapted to pass bodily through the same until the hook is extended and its tip rests in proximity to the bar C, for the purpose set forth.

In testimony whereof I have signed my 45 name to this specification, in the presence of two subscribing witnesses, on this 14th day of June, A. D. 1889.

CHARLES H. FARMER.

Witnesses:

C. E. WILMOT,

HENRY K. MOTLEY.