

(No Model.)

B. O. FOSTER.
ATTACHMENT FOR SUSPENDERS.

No. 472,040.

Patented Apr. 5, 1892.

Fig. 1.

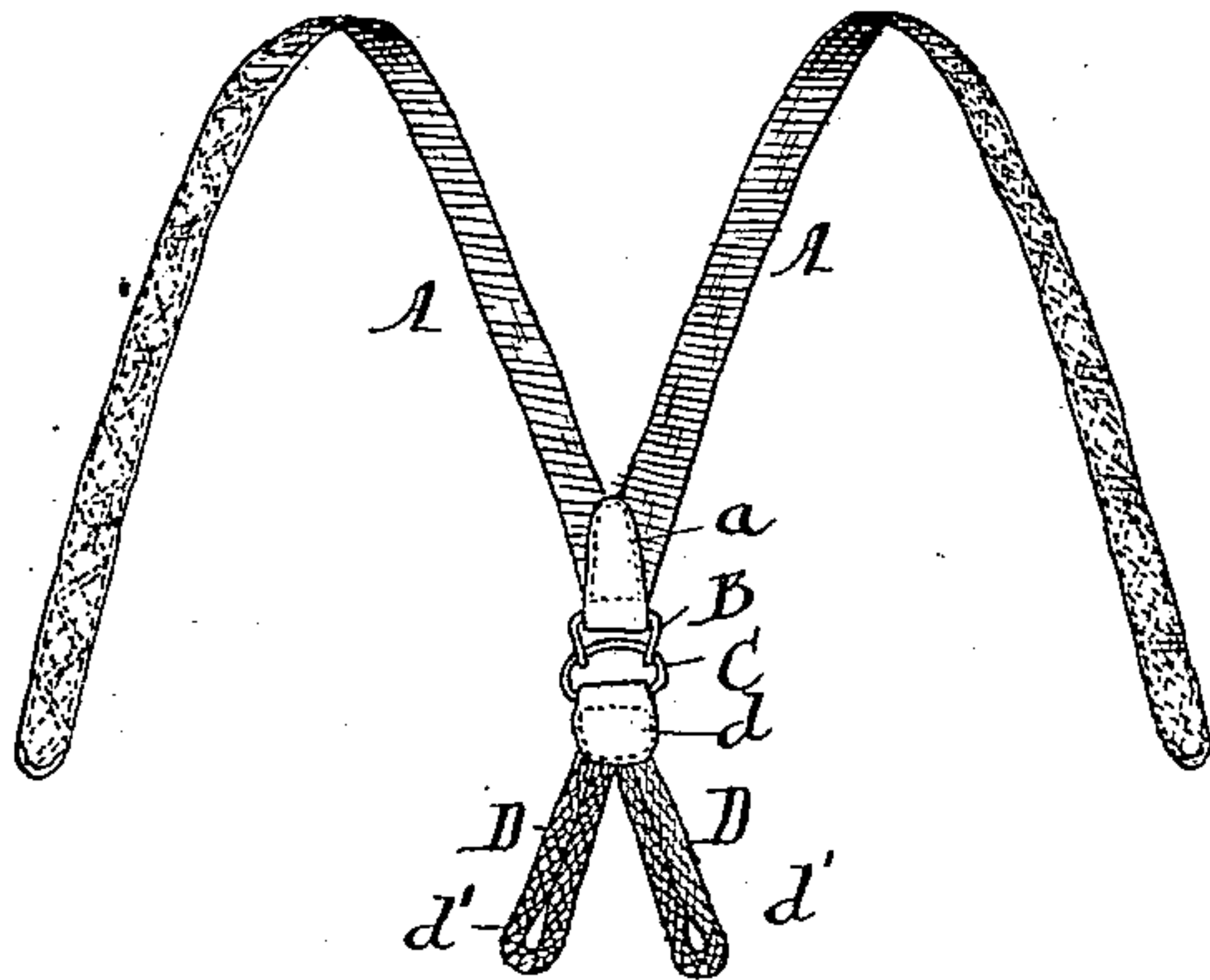


Fig. 2.

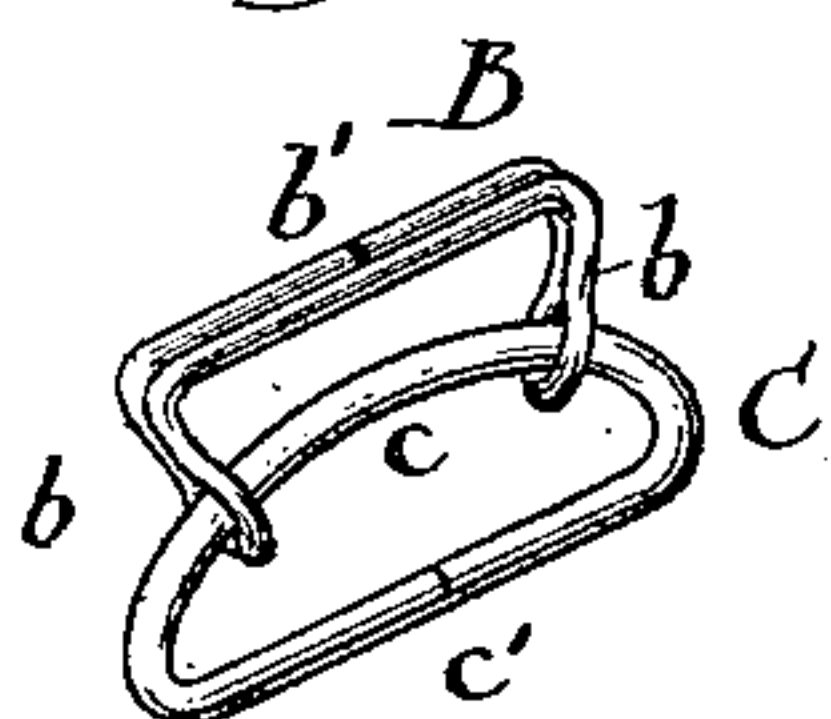


Fig. 3.

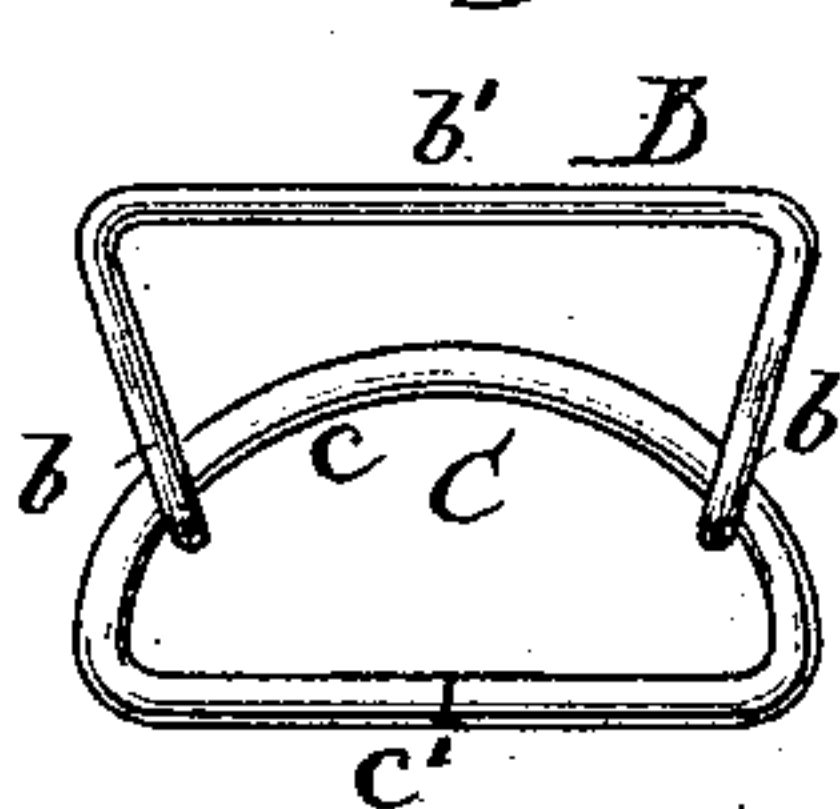


Fig. 4.

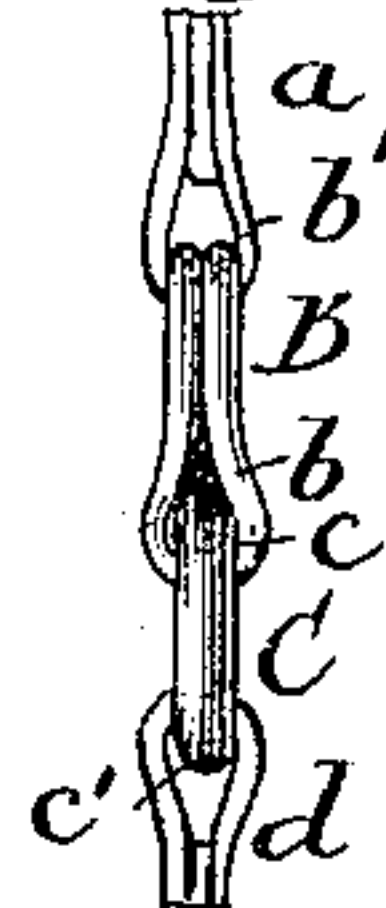


Fig. 5.

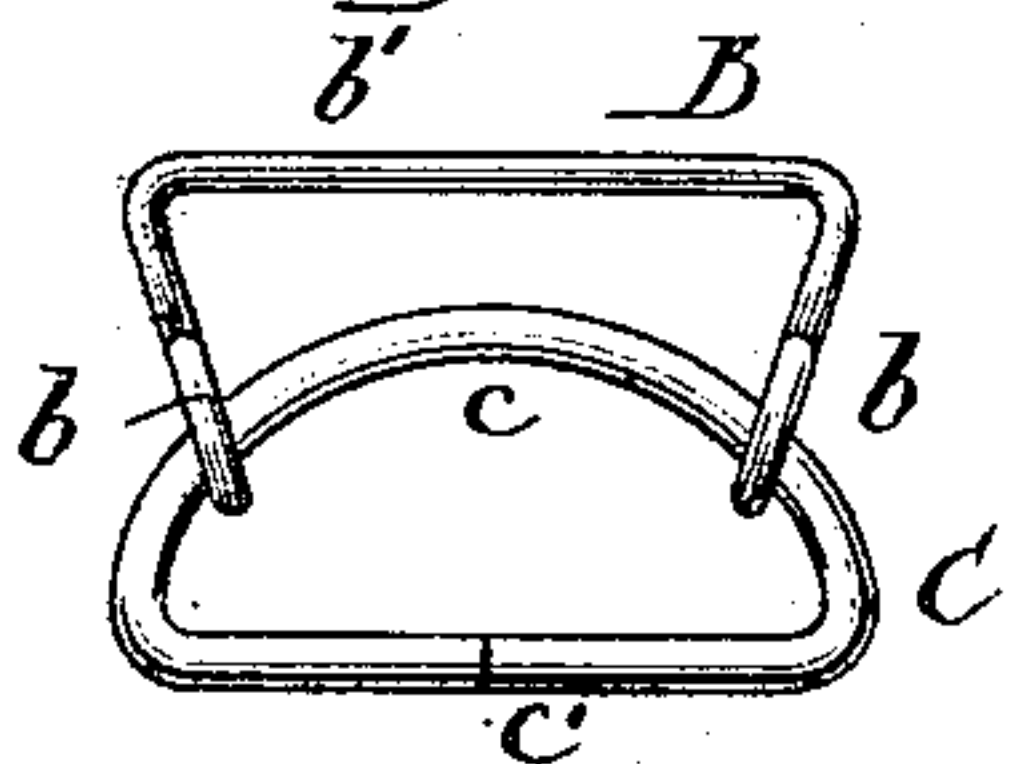


Fig. 6.

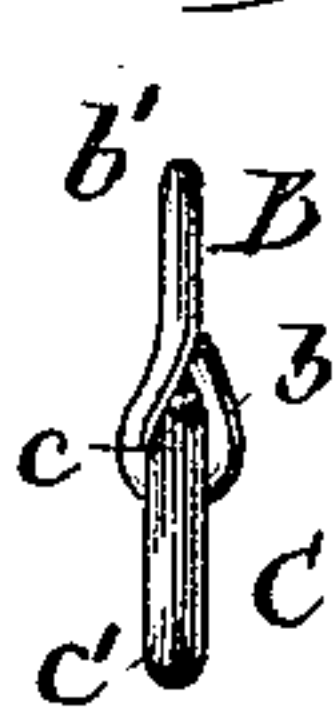


Fig. 7.

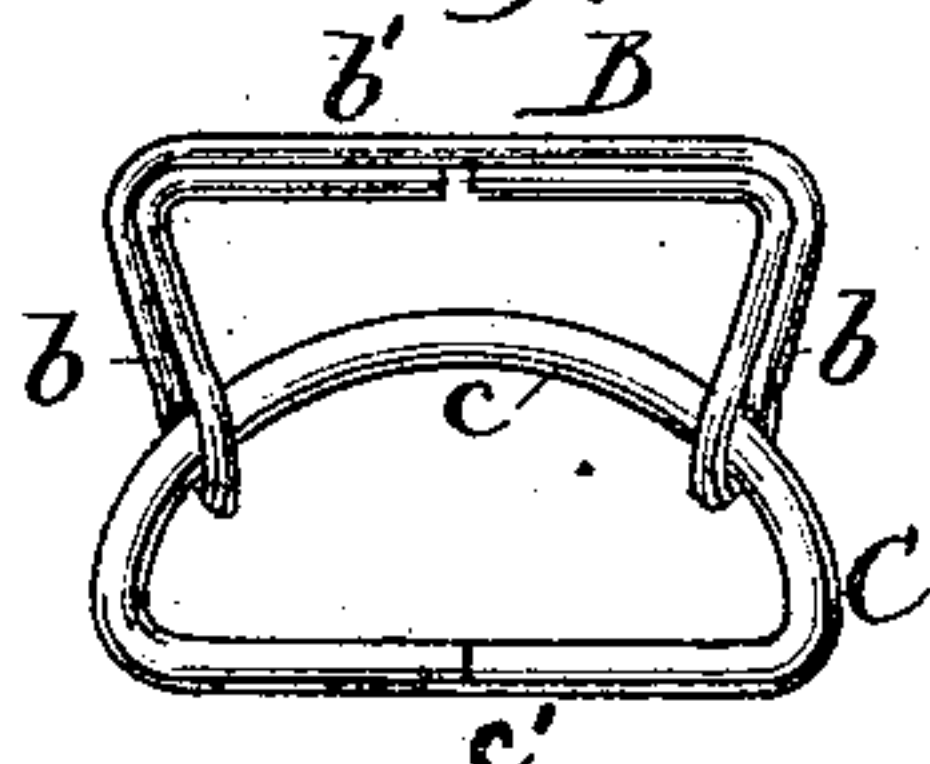
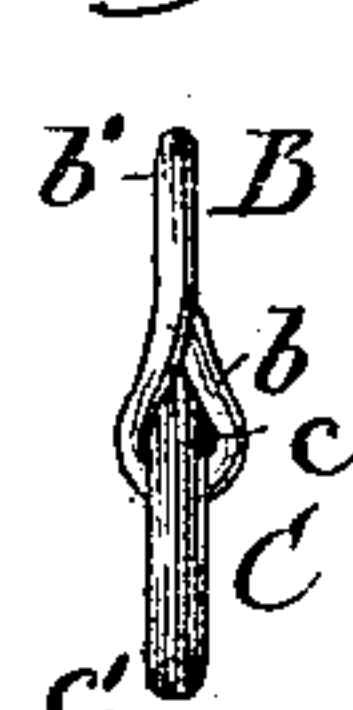


Fig. 8.



Witnesses:

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ATTACHMENT FOR SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 472,040, dated April 5, 1892.

Application filed April 6, 1891. Serial No. 387,742. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN O. FOSTER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Attachments for Suspenders; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, forming a part hereof, in which—

Figure 1 is an elevation showing the shoulder-straps and the button ends with the connecting device. Fig. 2 is a perspective view of the connecting device. Fig. 3 is a side elevation of the connecting device. Fig. 4 is an end elevation of the connecting device and the loops for connecting the device with the straps and the button ends. Fig. 5 is a side elevation showing a modification in the construction of the connecting device. Fig. 6 is an end elevation of the construction shown in Fig. 5. Fig. 7 is a side elevation showing another modification in the construction of the connecting device. Fig. 8 is an end elevation of the construction shown in Fig. 7.

It is the practice in the manufacture of suspenders to attach the ends for the back to the shoulder-straps by means of leather loops and a wire loop, and in use it has been found that the action of the wire loop from the movement of the suspenders rapidly cuts out and destroys the leather or fabric loop, causing the suspenders to break at the connection for the back between the shoulder-straps and the ends for the button, thereby destroying the suspenders for use. It is to avoid this cutting of the material and breaking of the suspenders at the back that constitutes the main object or purpose of this invention and at the same time have the connection between the shoulder-straps and the ends for the buttons one which will allow the necessary oscillation to insure ease and comfort to the wearer; and the nature of the invention consists in providing a connection formed of a loop having an eye at each end and a half-ring having a curved portion and supported by the eyes of the companion loop, and in the several parts

and combination of parts hereinafter described, and pointed out in the claim as new.

In the drawings, A represents the shoulder-straps, which may be of any of the usual and well-known forms of construction.

B is a loop open on one side and having at each end an eye *b*, which loop is formed by bending a piece of wire on itself to have at each end an eye *b* and a cross-bar *b'* for attachment to the shoulder-straps. As shown in Figs. 2, 3, and 4, the wire is bent on itself to have the cross-bar *b'* formed by the two adjacent parts lying side by side. As shown in Figs. 5 and 6, the wire is bent on itself to form the eyes *b* at the ends only, and the cross-bar *b'* is a single wire, and, as shown in Figs. 7 and 8, the wire is bent on itself to form the eyes *b* at the ends and have the bar *b'* formed of two wires, one lying under the other, and the wire could be bent in other forms, so long as it forms a loop open on one side with an eye at each end and a cross-bar for attaching the loop.

C is a loop in the form of a half-ring having a curved portion *c* and a cross-bar *c'*, and this loop is formed from a piece of wire bent into shape to have the curved part *c* and the cross-bar *c'*, which cross-bar is for attaching the loop C.

D are the ends for the back of the suspenders, which ends each have a slot or button-hole *d'*, as usual, and can be of the form shown or any other well-known form.

The loops B and C are connected together by forming the loop B, when made double, so as to leave an open space between the parts of the cross-bar *b'* for the admission of the loop C to have the curved portion *c* lying in the end of the loop B and then pressing the loop B together to form the eyes *b* around the curved part *c* of the loop C, and this same manner of connecting the loops together can be used with the construction shown in Figs. 7 and 8, the only difference being that when the parts of the loop B have been pressed together to form the eyes *b* one part comes beneath the other part of the cross-bar *b'*, and with the construction shown in Figs. 5 and 6 the eyes *b* are at first half-formed and the curved part *c* inserted therein and the eyes *b* finished by bending the wire around so as to inclose the

curved part *c*. The loop B is attached to the ends of the strap A by the piece *a*, inserted through the loop B and sewed or otherwise firmly secured to the ends of the straps A on both sides of the straps, forming a loop which receives and supports the cross-bar *b'*, as shown in Figs. 1 and 4, and the loop C is attached to the ends D by the piece *d*, inserted through the loop C and sewed or otherwise secured to the ends D on both sides, forming a loop which receives the cross-bar *c'*, as shown in Figs. 1 and 4, and when the loops B and C are attached to the straps A and ends D, respectively, a connection is had between the straps A and the ends D, by which the two are joined together. The curved part *c* of the loop C is free to move in the eyes *b* for the limit of play allowed by the space between the eye and the end of the curved part *c*, and this play is sufficient to allow of the necessary oscillation between the straps A and the ends D for the suspenders to conform to the movements of the wearer and produce comfort and ease in use. The oscillation is had by the sliding of the curved bar *c* in the eyes *b*, so that the wear comes on the metal, where it can do no harm, and this result is had by the free play permitted by the eyes for the curved bar, and by having the oscillation on the curved bar *c* it will be seen that the cross-bars *b'* and *c'* are relieved wholly from the effects of the oscillation, and such cross-bars remain stationary and cannot act to cut and break the attaching-pieces *a* and *d*, the result being that the attaching-pieces *a* and *d* remain intact and not subject to any wear, and without wear the attaching-pieces

a and *d* will last until the suspender is worn out at some other point than the connection between the straps A and the ends D. The curved bar is supported and carried by the eyes, so that a side draw will be transmitted to the attaching-bars in a direction to draw such bars straight and not diagonal, the result being that no slipping or sliding of the attaching-bars will occur, and consequently no cutting or wearing out of the pieces *a* and *d*.

The device is very simple, and by its use a connection is had which will be durable and strong and effectually prevent the cutting and wearing out of the attachment between the shoulder-straps and the suspender-ends.

What I claim as new, and desire to secure by Letters Patent, is as follows:

The connection for the back of suspenders, consisting of a metal loop having a straight attaching cross-bar and an inwardly-inclined arm at each end of the cross-bar, holding the cross-bar when attached against end slide, each arm having a receiving-eye, a semicircular metal loop having a curved bar entered into and carried by the eyes of the companion loop and sliding endwise in said eyes, and a straight attaching cross-bar held when attached against end slide by the curved bar for connecting the shoulder-straps to the suspender-ends and allowing the connection to equalize without cutting and tearing, substantially as set forth.

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Witnesses:

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