

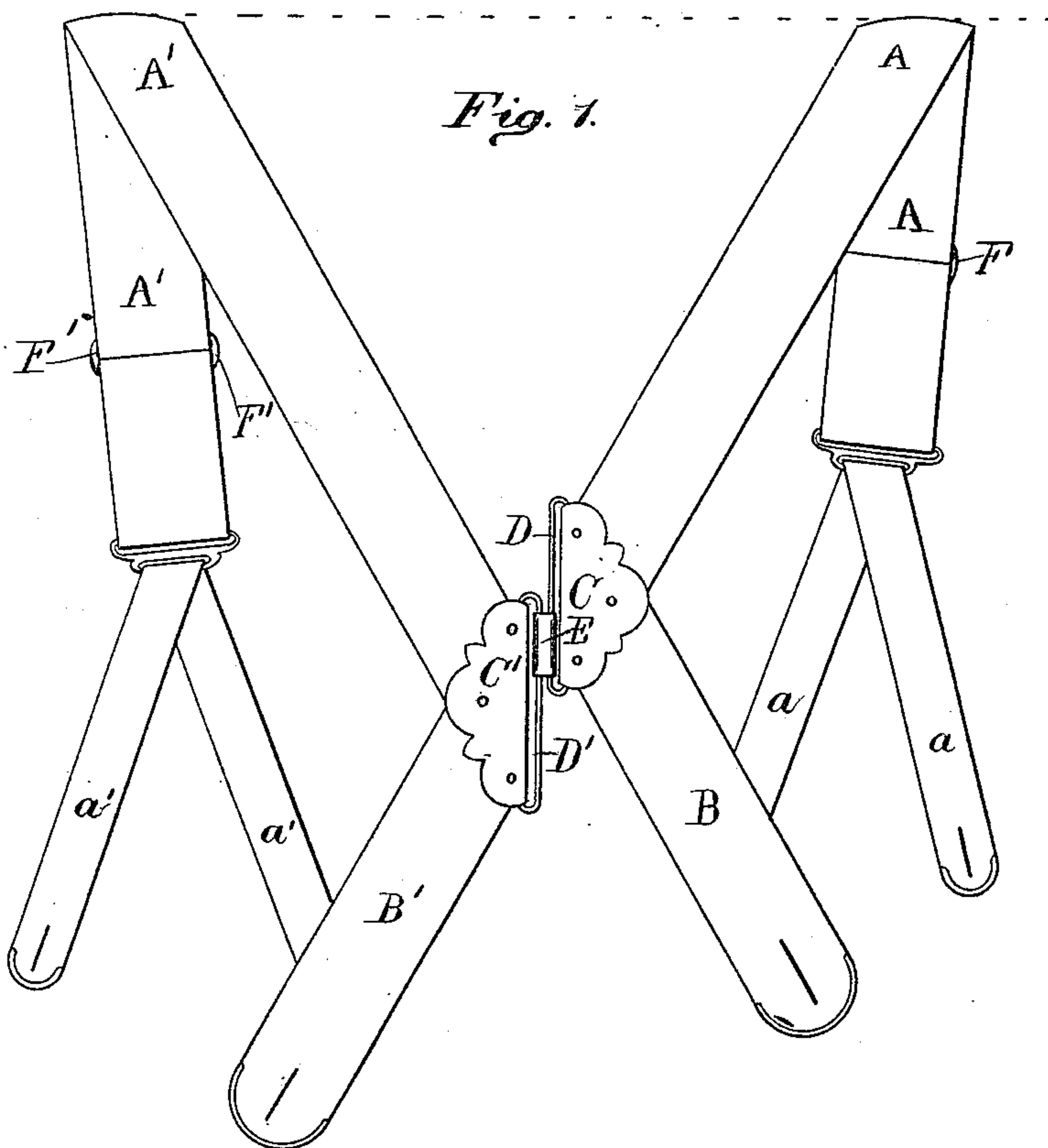
(No Model.)

V. R. ALLEN.

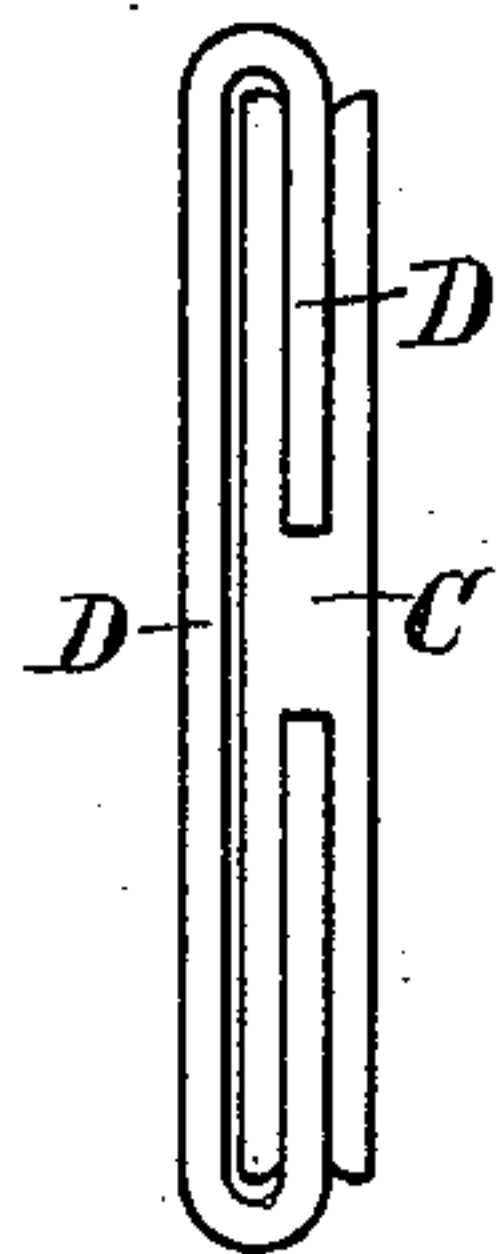
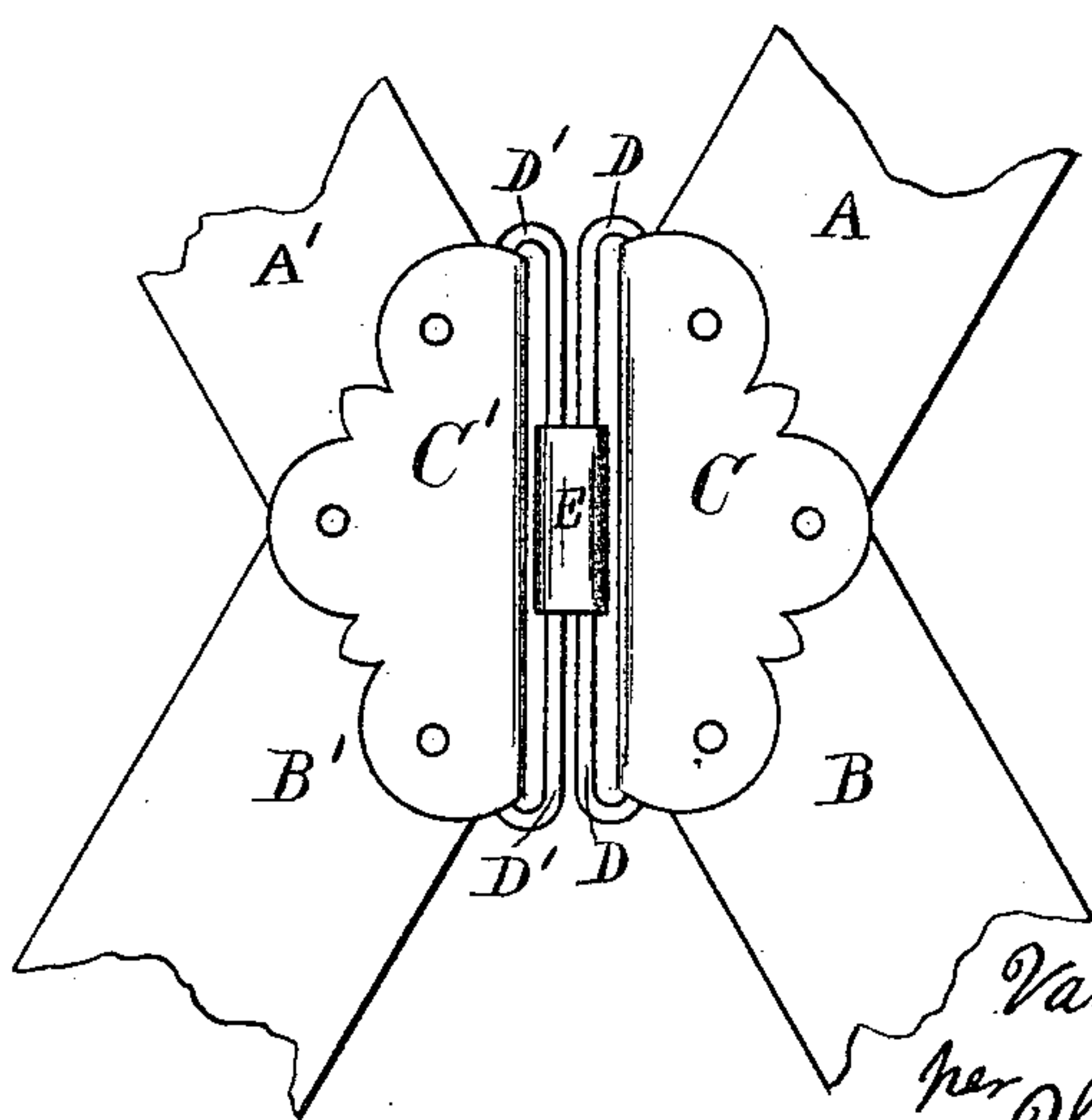
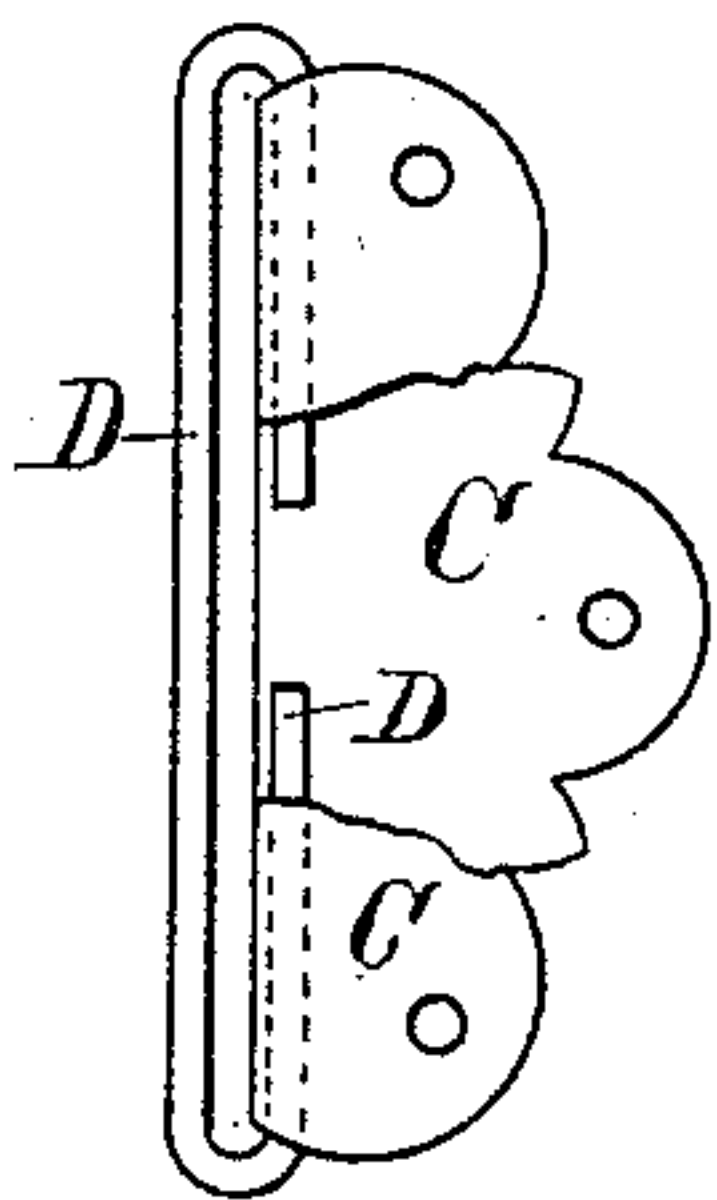
## SUSPENDERS.

No. 362,867.

Patented May 10, 1887.



*Fig. 3.*



*Fig. 4.*

Attest  
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# UNITED STATES PATENT OFFICE.

VALENTINE R. ALLEN, OF CINCINNATI, OHIO, ASSIGNOR TO THE CINCINNATI SUSPENDER COMPANY, OF SAME PLACE.

## SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 362,867, dated May 10, 1887.

Application filed January 3, 1887. Serial No. 223,259. (No model.)

*To all whom it may concern:*

Be it known that I, VALENTINE R. ALLEN, a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Suspenders, of which the following is a specification.

The various features of my invention and the advantages resulting from their use, conjointly or otherwise, will be apparent from the following description.

One of the principal objects of my invention is to provide a suspender in which each of the two lateral halves shall be adjustable in length independently of the other half.

Another principal object of my invention is to provide a suspender which shall allow of free movement of the body without bringing the greater part of the strain on one button.

In the accompanying drawings, Figure 1 represents a pair of suspenders embodying my improvements. Fig. 2 is an enlarged view illustrating the details of the slide, whereby the two lateral halves of the suspender are adjustably connected to each other. Fig. 3 is a view of one of the loops or slide-rods and a side elevation of the piece or clasp connecting the loop or slide-rod to the web of the adjacent half of the suspender, the central portion of that leaf of the clasp which is nearer to the eye of the spectator being broken away. The view illustrates one mode of uniting the loop or slide-rod to the clasp, the portion of the loop or slide-rod not directly seen being indicated by dotted lines. Fig. 4 is for the same purpose as Fig. 3, and is a view of one of the clasps and its slide rod or loop shown in Fig. 3, the view being taken looking toward the edges of the clasp at that side where the clasp is open, the straps which the clasp secures being withdrawn from the latter.

The suspender is made in two halves, preferably exactly similar, and united in the back by a vertical slide. On the one side the front strap A and the back strap B are secured between the leaves or opposing portions of the clamp or clasp C. On the other side the front strap A' and the back strap B' are likewise fastened between the leaves or opposing portions of the clamp or clasp C'. The mode of securing a front and back strap to their re-

spective clamp or clasp may be by riveting together the opposing leaves or portions of the clasp, or by clinching together the opposing portions of said clasp, or by any other suitable manner. This clasp or clamp may be made in any desired configuration. The clasp C is provided with a slide-rod, D, and the clasp C' is provided with a similar slide-rod, D'. Each of these slide-rods may be connected at one point only to its clasp, or be connected at its upper and lower end portions to its clasp, thereby forming a loop, as shown.

The slide-rod may be made in one piece with its clasp, but is preferably made as shown in Fig. 3—viz., the respective ends of the slide-rod are bent around the respective ends or edges of the clasp, thereby allowing the slide rod or loop to swing or oscillate, that portion of the slide-rod within the clasp serving as a hinge, whereby the rest of the loop is enabled to swing.

Two or more short sleeves, or, preferably, as shown, one long sleeve or loop, E, is made to connect the slide rods or loops D D', these slide rods or loops D D' sliding through the loop or sleeve E independently of each other. The length of this sleeve E is preferably about one-third the length of the slide-rods D D'. This allows the clasps C C' to be moved up and down in the sleeve E, and gives to each a considerable range of adjustability.

The front straps, A A', are each preferably provided with the usual straps, a a' a', for attaching the suspender to the front of the pantaloons; and for the purpose of carrying out one of the principal objects of my invention each front strap is provided with a buckle or clasp, as F or F', or other means for shortening or lengthening its respective lateral half of the suspender.

When it is desired to raise one leg of the pantaloons without disturbing the other side, the front strap on that side is shortened in the usual manner. This has the effect of shortening the whole suspender on that side, and raises the rear as well as the front side of the pantaloons on that side. The position assumed by the suspenders when so adjusted is illustrated in Fig. 1. The advantage of such an arrangement is apparent, as not infrequently



one leg of the pantaloons will drop, particularly at the heel, and with the old form of suspender it is impossible to remedy the difficulty.

Frequently an individual carries one shoulder higher than the other, and in such event my invention enables the half of the suspender over that shoulder which is lower to be adequately shortened without disturbing the length of the other half of the suspender, and at the same time each shoulder and each lateral half of the suspender takes its own proper share of the weight, and the strain is evenly divided between the buttons of each side of the pantaloons, and the latter are evenly upheld. Another advantage of the sliding clasp is its freedom of movement when the body is twisted or when one of the shoulders is temporarily raised above the level of the other. The sliding motion in this case prevents the strain all falling on one button.

The vertical slide connecting together the lateral halves of the suspender may be thus usefully employed even when the buckles F F', or other such means for adjusting in front the length of the suspenders, are omitted.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. A vertical slide-coupling for suspenders, supporters, and braces, having the slide rods or loops carrying loop E, in combination with the two independent lateral halves of a suspender, thereby allowing each half to slide vertically, automatically, and independently of the other, substantially as set forth.

2. A suspender having two independent lateral halves united at their adjacent edges by a vertical slide-coupling, substantially as described, permitting each half to slide automatically and independently of the other, substantially as set forth.

3. In combination, two independent lateral halves of a suspender, each half being provided with a clasp, C, having a slide-rod or slide-loop carrying coupling-loop E, substantially as and for the purposes set forth.

4. In a pair of suspenders, the combination of the clasps C and C', provided, respectively, with the slide-rods or slide-loops D D' and coupling-slide E, substantially as set forth.

5. A vertical slide-coupling for suspenders, supporters, and braces, having the slide rods or loops carrying loop E, in combination with the two independent lateral halves of a suspender, thereby allowing each half to slide vertically, automatically, and independently of the other, and means for lengthening the independent half at the front of the body, substantially as set forth.

6. The combination of the front straps, A A', buckles F F', rear straps, B B', clasps C C', slide-rods D D', and coupling-slide E, substantially as and for the purposes set forth.

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