

(No Model.)

I. W. EMERSON.
SUSPENDERS.

No. 549,506.

Patented Nov. 12, 1895.



Fig. 1.

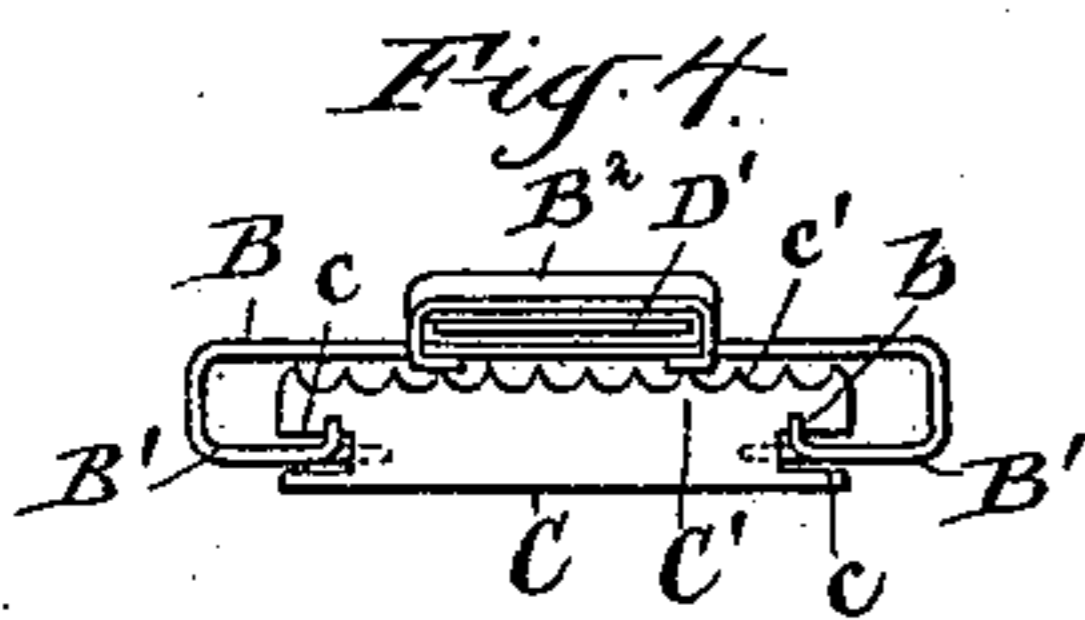


Fig. 4.

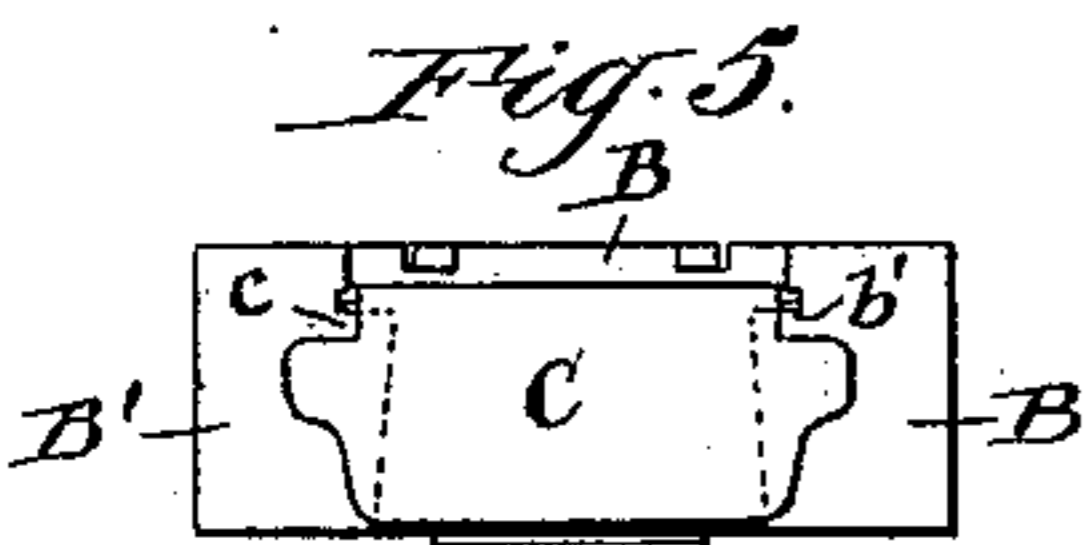


Fig. 5.

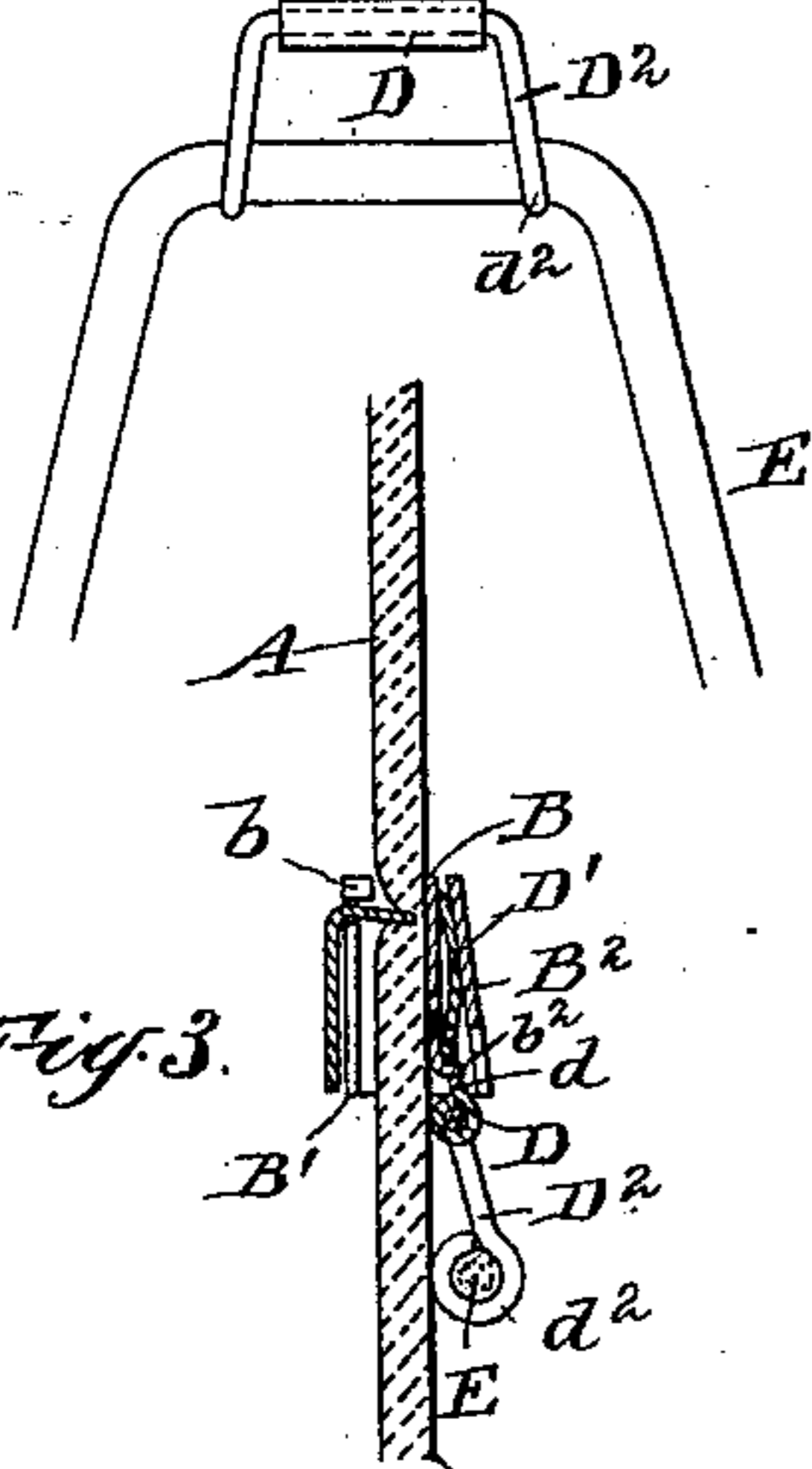


Fig. 3.

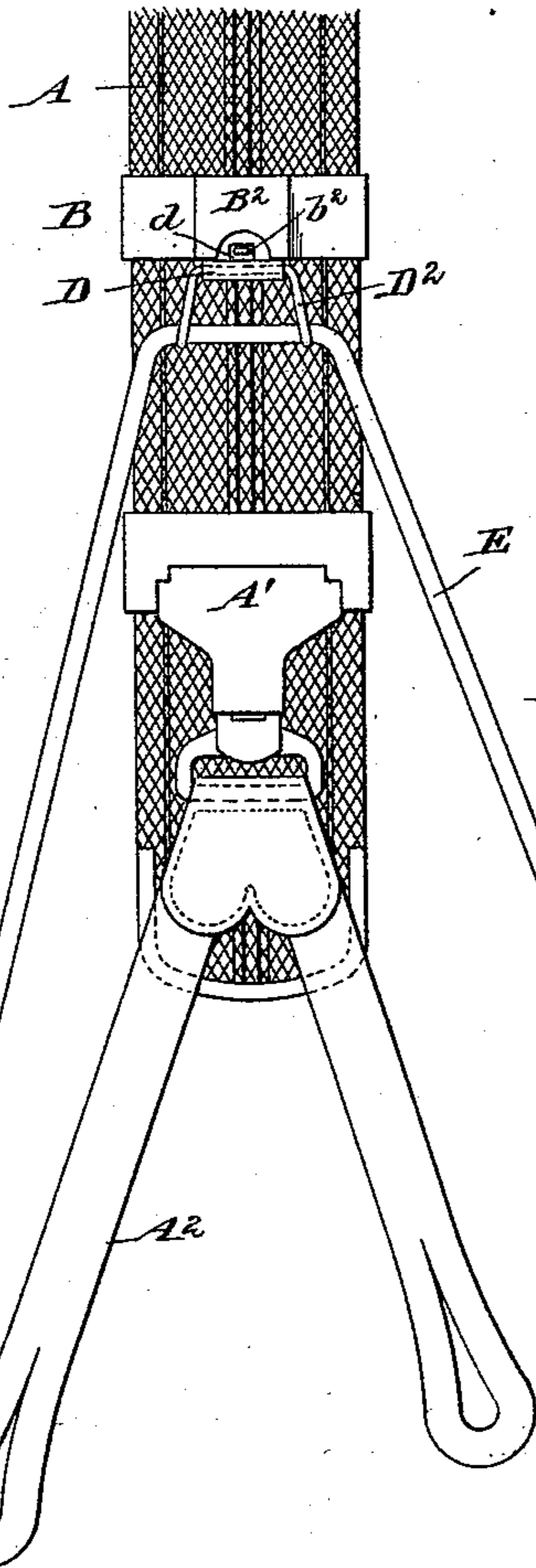


Fig. 2.

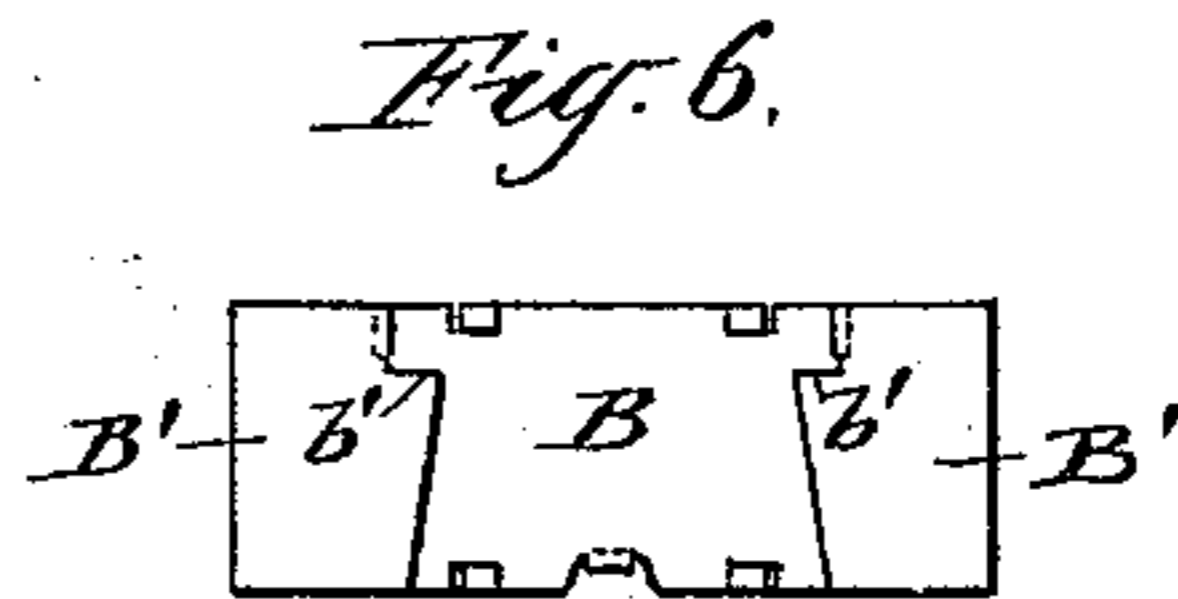


Fig. 6.



Fig. 7.

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UNITED STATES PATENT OFFICE.

ISALAH W. EMERSON, OF PIERMONT, NEW HAMPSHIRE.

SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 549,506, dated November 12, 1895.

Application filed March 6, 1895. Serial No. 540,696. (No model.)

To all whom it may concern:

Be it known that I, ISALAH W. EMERSON, a citizen of the United States, residing at Piermont, in the county of Grafton and State of New Hampshire, have invented a certain new and useful Improvement in Suspenders, of which the following is a specification.

The invention is intended to be used to support the drawers, and is applied to ordinary suspenders supporting the trousers.

It consists of two buckles provided with suspender-ends having clasps or other means of easy attachment to the waistband of the drawers, mounted one on each of the suspender-straps in addition to the usual suspender-buckle, and adapted to support the drawers at two points (front and rear) on each side.

The buckle is in two parts, easily separated from each other, to allow the strap to be engaged without removing the ordinary buckle, and is provided with a cast-off engaging the body of the buckle in such manner that pressure inward against the person will not release it.

The invention supports the drawers and the trousers upon the same suspender-straps; but each may be adjusted to hang higher or lower at the pleasure of the wearer independently of the other, a feature adding greatly to the comfort, as ordinarily the two garments are of different lengths, and unless supported correspondingly the drawers hang either too high or too low, resulting in discomfort to the wearer and spoiling the set or fit of the trousers. This fault is further obviated by supporting the drawers at two points (front and rear) at each side, so that the slack may be taken up all around, insuring a neat, snug fit of the undergarment.

The accompanying drawings form a part of this specification, and show the manner in which the invention is to be carried out.

Figure 1 is a perspective view showing the device in use upon the person. The remaining figures are on a larger scale. Fig. 2 is a face view of one of the suspender-straps with the buckles in place. Fig. 3 is a vertical section through the drawers-supporting buckle and a portion of the strap. Figs. 4, 5, 6, and 7 show details of the buckle. Fig. 4 is a view from above. Fig. 5 is a view from the

rear. Figs. 6 and 7 are similar views showing the two parts of the buckle separately.

Similar letters of reference indicate the same parts in all the figures.

A A are the straps of a pair of ordinary suspenders equipped in all respects, as usual, with the buckles A', suspender-ends A² at the front, and similar ends (not shown) at the back, for attachment to the buttons on the trousers M.

B are buckles mounted on the straps above the buckles A', each provided with a cast-off D and suspender-ends E considerably longer than the ends A², and carrying spring-clasps E' for reliably engaging the waistband N of the drawers at two points *n n* at each side near the front and rear, as shown.

It is important that the buckle B may be easily applied and removed from the strap without necessitating the removal of the suspender-buckle. I make the former separable, so that the drawers-supporter may be attached to the suspenders or be removed or transferred to serve with another pair of suspenders without disturbing the adjustment of the buckle A' for supporting the trousers.

B is the main body of the buckle, of thin brass or other suitable material, having wings or ends B' B' folded upon the body, as shown, to partially inclose the strap. A narrow rectangular notch is cut near the top of each wing and the remaining narrow strip of metal above each notch is bent inward, forming lugs *b b*, leaving the lower side of the notch exposed, as offsets or shoulders *b' b'*, upon which rests the removable clamp C. The latter is a piece of thin brass having a flange C' bent at right angles along the upper edge, provided with a series of points or teeth *c'* to engage the webbing or strap. Two rectangular notches *c c*, one at each end of the clamp, are cut inward on the bend of the flange C', so that a portion of the metal removed is taken from the part C and a portion from the flange C'. The notches are of sufficient width to allow the passage of the lugs *b b*.

In applying the parts to the strap the body B is first engaged by partially folding that portion of the strap longitudinally and inserting the edges within the turned-over ends B' B'. The clamp C is then held with its flange

C' parallel with and against the strap above the ends B' B', and as the distance across the clamp between the notches *c c* is a little less than that between the lugs *b b* the clamp
 5 may be slipped downward between the strap and the wings B' B' until it rests upon the shoulders *b' b'*. On folding the part C downward the clamp turns upon the shoulders, forcing the teeth *c'* into the webbing of the
 10 strap A and engaging that portion of the flange C' adjacent to each notch *c* under the lugs *b b*. Thus conditioned, the buckle B is reliably engaged on the strap. It may be loosened by raising the clamp C, and the buckle
 15 may then be slid up or down on the strap and again secured as required, the parts remaining in engagement by reason of the fact that the strap nearly or quite fills the space between the body B and the clamp, even
 20 when the latter is loosened as above described, insuring that the flange C' shall lie against the inner surface of each wing or end B' below and engaged by the lug *b*. The clamp may be removed by raising the part
 25 C and then pressing inward until the webbing is compressed sufficiently to allow the flange C' to pass the lugs *b*.

B² is a flat casing tapering vertically, secured upon the outer face of the body B, receiving the tongue D' of the cast-off D. The
 30 tongue is a single leaf of spring-brass curved, as shown, and provided with a small rectangular slot *d* near the lower end adapted to engage a lug *b*² on the body B. The tongue
 35 is forced outward when thrust into the casing B² until the slot *d* reaches the lug *b*² and springs inward, engaging the latter. It may be released by forcing the tongue outward until the slot clears the lug, when by a fur-
 40 ther downward movement it will be withdrawn. External pressure against the body of the wearer upon the cast-off will not release it, but, on the contrary, insure its engagement.

45 A wire loop D² hinged to the lower edge of the tongue by folding the metal over a straight portion of the wire is provided with hooks *d*², formed into nearly-closed loops on the ends, in which is engaged the elastic cord
 50 of the suspender-end E with sufficient friction to hold the latter against accidental displacement if the wearer desires to have one portion longer than the other.

Modifications may be made in the forms and

proportions within wide limits without departing from the principle of the invention. 55

There are several forms of suspenders—as, for instance, the “Guyot”—in which the function of the buckle A' is performed by a slide or other fastening means to which the end of
 60 the strap is secured after passing through the loop holding the suspender-ends. In applying my invention to such suspenders my separable buckle is essential, and is preferable in all forms, because of the facility of attach-
 65 ment and removal; but in many styles any buckle of ordinary or suitable make may be employed.

I claim as my invention—

1. The separable buckle described, consisting of the body B and wings B' thereon adapted to partially inclose a suspender strap, the inwardly projecting lug *b* and shoulder *b'* on each wing, in combination with the clamping
 70 piece C having the toothed flange C' thereon, engaging under said lugs and resting on said shoulders, the said clamping piece and flange having the notches *c* of a width greater than the length of the said lug, cut on their join-
 75 ing angle so that the clamping piece may be disengaged from the body and again replaced, substantially as herein specified. 80

2. The separable buckle consisting of the body B and wings B' thereon, having lugs *b* and shoulders *b'*, the cast-off D and suspender
 85 ends E, carried by the said body, in combination with each other and with the piece C, having the toothed flange C' and notches *c*, engaging said lugs and shoulders, and with the suspender strap A, buckle A', and sus-
 90 pender ends A², all adapted to serve in supporting the drawers and trousers, substantially as herein specified.

3. The body B, casing B² thereon and lug *b*² formed on the body in combination with
 95 the single leaf spring-tongue D', having the slot *d* adapted to engage said lug, and carrying the loop D² and means as the hooks *d*², suspender ends E and clasps E', for attaching to the garment, all substantially as herein
 100 specified

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

ISAIAH W. EMERSON.

Witnesses:

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 P. FRANK MCCANN.