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B. A. RICHMAN

2,539,272

FASTENER OF THE SLIDE BUCKLE TYPE

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Fig. 1.

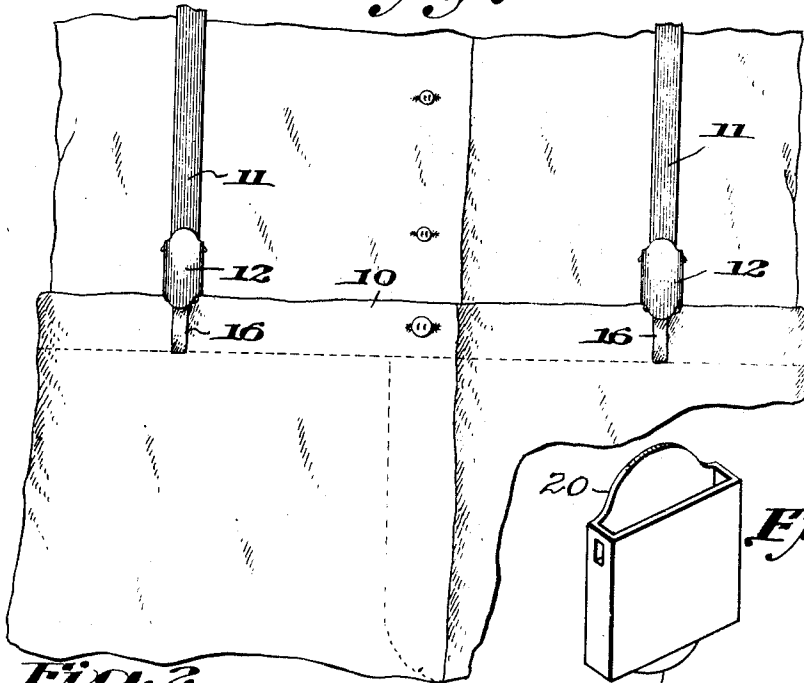


Fig. 2

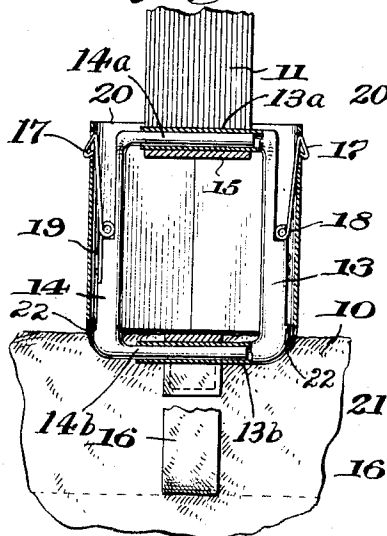


Fig. 3.

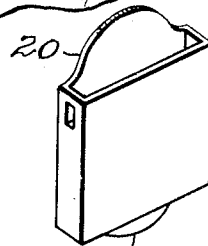
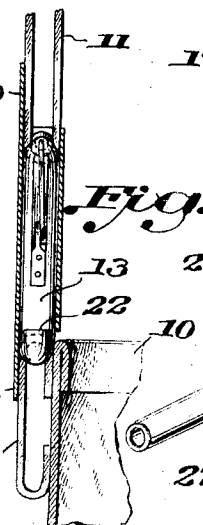


Fig. 8.

Fig. 4.

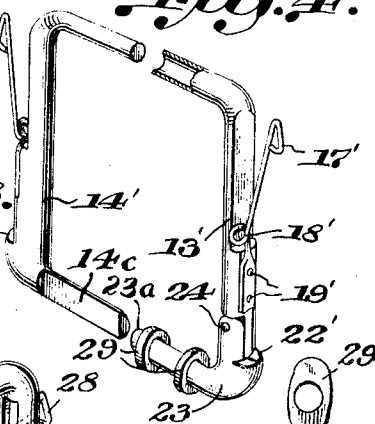


Fig. 7.

Fig. 6.

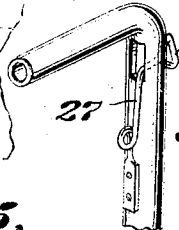
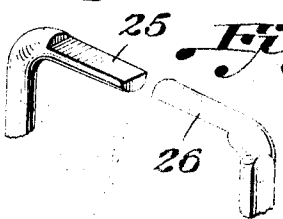


Fig. 5.



By

Inventor:
Bessie A. Richman,

J. W. Dahm,
Att'y

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FASTENER OF THE SLIDE BUCKLE TYPE

Bessie A. Richman, Loma Linda, Calif.

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8 Claims. (Cl. 24-230)

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My invention relates to a fastener of the slide buckle type particularly intended for securing pantaloons or like nether garments to suspenders, but which may also be used for holding together the ends of a belt or for other purposes for which the fastener may be found suitable.

It is an object of the invention to provide a device that eliminates the need for buttons in certain situations.

Another object is to provide a device of the character described that can be readily placed in operative relation to such parts as the loops used on garments, belts and the like, which shall remain securely in place thereon, and which can readily be removed therefrom when desired.

Another object is to provide a device of the character described that shall be ornamental in appearance.

Referring to the drawings, which are made a part of this application and in which similar reference characters indicate similar parts:

Figure 1 is an elevation showing a pair of my devices as they appear in use;

Figure 2, an elevation with parts omitted, showing the interior construction;

Figure 3, a vertical section at right angles to Figure 2;

Figure 4, a perspective of a modified form of the device with the separable U-shaped parts spaced from one another;

Figure 5, a fragmentary perspective of the separable U-shaped parts in another form of the invention;

Figure 6, a detail of another modification, and

Figure 7, an elevation of a part shown in Figure 4.

Figure 8, a perspective view of the sleeve member which slidably engages the U-shaped members.

In the drawings, reference character 10 indicates a portion of a nether garment such as boys' short pants, the device being especially suited for use with such garments because of the convenience with which one of the parts may be applied to a loop of the garment and to another loop on a pair of suspenders or a waist, and because it will not tear off like a button but will hold on as long as the loops do not give way, and is not likely to be released accidentally as buttons become unbuttoned when the button-holes become worn.

The nether garment is shown as attached to suspenders 11 by the device indicated generally at 12 in Figure 1, which device comprises two opposed U-shaped members comprising body sec-

tions 13 and 14 provided respectively with upper and lower arms shown at 13a, 13b and 14a and 14b. Member 13 is shown as having its upper arm 13a hollow and adapted to receive the solid correspondingly positioned upper arm 14a of member 14, and the lower arm 13b of member 13 being adapted to receive the corresponding solid lower arm 14b of member 14 in like manner, these pairs of arms when thus interconnected, extending respectively through the loop 15 of the suspenders and the loop 16 of the pants.

To insure that the fastener members so far described shall remain in place and securely connect the garments each U-shaped member is provided with a retainer in the shape of a spring having a catch 17 at its upper end, a coil 18 at an intermediate portion and a lower straight part 19 secured to the upright body portion of a member 13 or 14 as by rivets or by welding, such upright part being reduced at its upper end to provide space for the coil 18 and for the flexing of the spring, as hereinafter explained.

Cooperating with the springs to maintain the fastener in operation there is a sleeve 20 shaped to fit about the fastener and having holes at opposite sides to receive the catches 17, 17. Preferably the catches are so shaped as to permit the sleeve to slide downward freely, the springs yielding to let the sleeve pass them but springing out to cause the catches to engage in the holes and prevent reverse movement except after manually pressing in the catches to release the sleeve. Preferably also the front of the sleeve is provided with some ornamental conformation which, however, forms no part of my invention.

The lower end of the sleeve preferably extends down far enough to conceal any other parts of the device, as shown at 21, and the relative downward movement of the sleeve is limited by outwardly extending shoulders 22 (Figure 3) adapted to engage under the ends of the sides of sleeve 20.

In the modified form of the invention shown in Figure 4 the parts 14', 17', 18', 19', 22', etc., are generally similar to those above described, but the lower body part 23 of the U-shaped member 13' is separate from the upper part or main body member, it being pivoted thereto at 24. Both the horizontal arm 23a of member 23 and the corresponding arm 14c of member 14' are flattened or half-round in section, so that when they are put together they will form a round bar in a loop such as loop 16.

In Figure 5, a form of the invention is shown wherein the laterally extending arms 25 and 26

of the upper ends of the respective U-shaped side members are half-round but are flattened respectively at the top and the bottom thereof. Obviously the same construction may be employed at the bottom of the fastener only, or at both top and bottom.

Figure 6 shows another modification in which the spring 27 is similar to those shown in other figures but is located inside the U-shaped member and has an arm extending through an aperture in said member and provided with a catch 28 in position to perform the same function as the catches 17 and 17'.

Figure 7 shows a sort of washer 29, which is adapted to be placed on either an upper bar or a lower bar in cases where the loops of the garment are narrow. In such cases the loops are liable to pull out of shape and become twisted so as to wear out quickly. By filling up some of the space at one or both sides of the loop on a bar with washers 29 so that the loops cannot slip to one side they will be held straight and undistorted. Preferably the washers should be elliptical or oblong in shape, so as not to interfere with the motion of the slidable sleeves and to be held in place to some extent by said sleeves when the device is in use, due to the inability of the washer to rotate on its bar because of contact of the long sides of the washer with the inner walls of the sleeve.

It is to be understood that the sleeves will be slid up on the suspender members when my devices are being applied as in Figure 1, then the U-shaped members have their upper and lower arms passed through the respective loops (15 and 16) so that the coacting arms, in any of the forms of the invention serve as bars of approximate circular cross section in the loops, and then the sleeve is slid down over the members 13 and 14 until stopped by shoulders 22, at which time the catches 17 will have snapped into place through the holes in the sleeve and will hold the parts securely together.

It will be obvious to those skilled in the art that many changes may be made in the device of my invention, all without departing from the spirit of the invention; and therefore I do not limit myself to what is shown in the drawings and described in the specification, but only as indicated in the appended claims.

Having thus fully described my invention, what I claim is:

1. In a fastener, a pair of U-shaped members, one of said members having hollow arms to receive smaller arms on the other member, and a sleeve fitting about said pair of U-shaped members for holding them with the arms of the one positioned in the hollow arms of the other.

2. In a fastener, a pair of U-shaped members, at least one of said members having a hollow arm and the other of said members having at least one arm proportioned to enter said hollow arm, and a sleeve slidable into a position where it surrounds said pair of U-shaped members so as to hold them with their arms interengaged.

3. A rectangular fastener for connecting a loop on a garment to a loop on a suspender, said fastener comprising a pair of U-shaped members each having a body portion and two arms projecting from one side of said body portion, and a sleeve encircling said fastener and engaging with the outer faces of said body portions to

maintain said body portions in parallelism with the legs of one extending toward the body portion of the other, said sleeve being slidable to permit detachment of the fastener from said loops, and means on at least one of said U-shaped members for holding said sleeve in place on said fastener, said means comprising a spring-pressed catch on the body portion of a U-shaped member for engaging said sleeve.

4. A rectangular fastener for connecting a loop on a garment to a loop on a suspender, said fastener comprising a pair of U-shaped members each having a body portion and two arms projecting from one side of said body portion, and a sleeve encircling said fastener and engaging with the outer faces of said body portions, to maintain said body portions in parallelism with the legs of one extending toward the body portion of the other, said sleeve being slidable to permit detachment of the fastener from said loops, and means on at least one of said U-shaped members for holding said sleeve in place on said fastener, said means comprising a spring-pressed catch on the body portion of a U-shaped member for engaging said sleeve, said sleeve having a hole through which a portion of the catch projects.

5. A rectangular fastener for connecting a loop on a garment to a loop on a suspender, said fastener comprising a pair of U-shaped members each having a body portion and two arms projecting from one side of said body portion, and a sleeve encircling said fastener and engaging with the outer faces of said body portions to maintain said body portions in parallelism with the legs of one extending toward the body portion of the other, wherein said sleeve has holes at opposite sides, and resilient catches fixed to the U-shaped members with hook-like portions projecting through said holes.

6. A device as in claim 3, wherein the arms are half-round so as to form round bars when the fastener is assembled.

7. A device as in claim 3 wherein one of said arms is pivotally connected to its body member.

8. A rectangular fastener for connecting a loop on a garment to a loop on a suspender, said fastener comprising a pair of U-shaped members each having a body portion and two arms projecting from one side of said body portion, and a sleeve encircling said fastener and engaging with the outer faces of said body portions to maintain said body portions in parallelism with the legs of one extending toward the body portion of the other, including a spring-pressed catch mounted at the inner side of the body portion of one of said U-shaped members, and extending through said body portion into engagement with said sleeve.

BESSIE A. RICHMAN.

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