Feb. 10, 1931. H. T. STEVENSON 1,792,128

COUPLING DEVICE

Filed Sept. 17, 1929

Fig. 1,

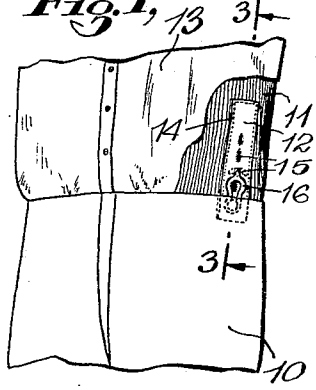


Fig. 2

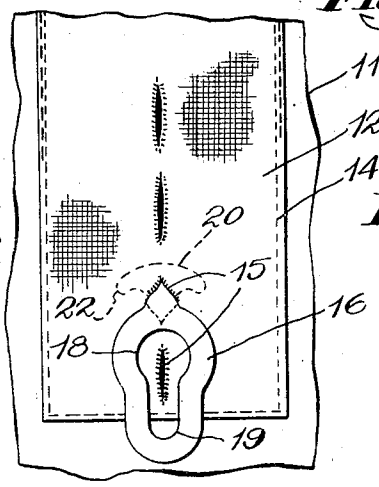


Fig. 3,

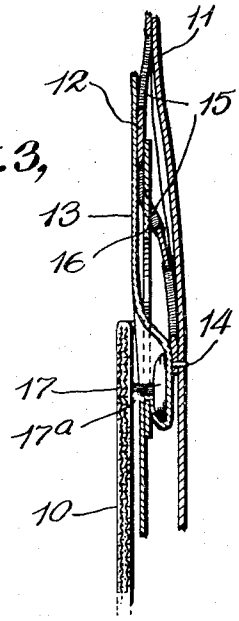


Fig. 4,

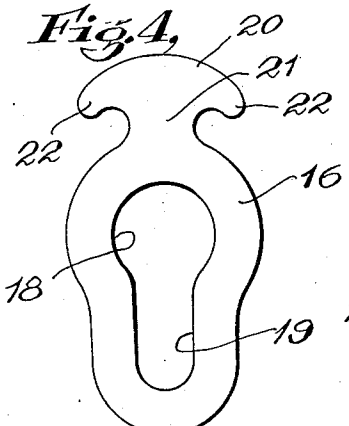


Fig. 5,

Fig. 6,

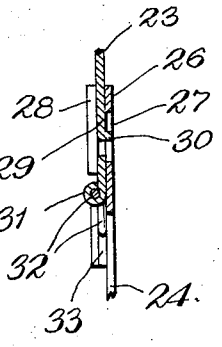


Fig. 7,

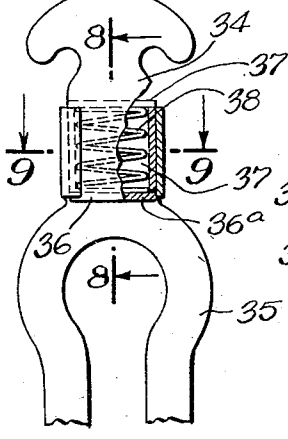


Fig. 8,

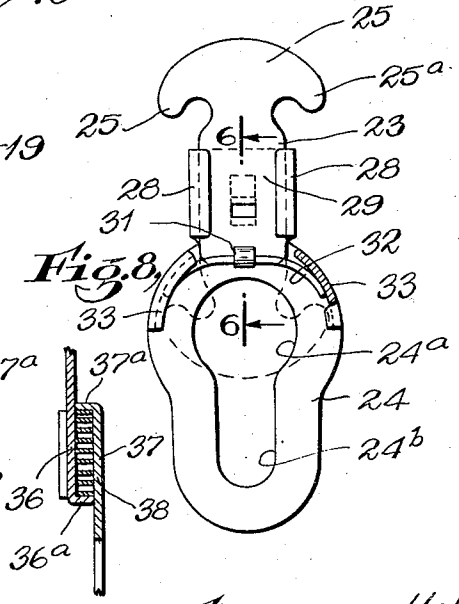
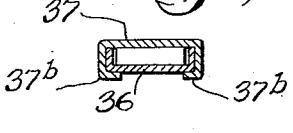


Fig. 9,



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Patented Feb. 10, 1931 1,792,128

UNITED STATES PATENT OFFICE

HILARY T. STEVENSON, OF NEW YORK, N. Y.

COUPLING DEVICE

Application filed September 17, 1929. Serial No. 393,155.

This invention relates to coupling devices and particularly to devices of this class adapted for use in coupling two or more body garments together to support the same upon the body of the wearer; and the object of the invention is to provide a device of the class specified having means for positively securing the same to one body garment in such manner as to prevent the accidental displacement thereof and yet permit the detachment of the coupling in the laundering of the garment, said garment having arranged thereon and attached thereto a tab of relatively strong material in connection with which the coupling is supported and with which the coupling may be adjusted by providing a plurality of longitudinally spaced button holes in said tab in connection with either of which one end of the coupling may be supported; a further object of the invention is to provide a coupling of the class described which is primarily adapted for use in supporting trousers in connection with an undershirt or the shirt portion of an under garment and at the same time to properly support the outer shirt in position to prevent its displacement from within the trousers, thus serving to maintain the lower portion of an outer shirt in proper position within the waist portion of a pair of trousers, the trousers having buttons on the inner face of the waistband thereof in connection with which my improved couplings are adapted to be mounted; a still further object being to provide a coupling of the class described involving relatively movable parts with tensional means disposed between said parts to normally support the same in collapsed position and to permit the extension of said parts to compensate for the stresses or strains to which the device is subjected when in use on the body of the wearer; and with these and other objects in view, the invention consists in a device of the class and for the purpose specified, which is simple in construction, efficient in use, and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Fig. 1 is a perspective view of the upper end portion of a pair of trousers, illustrating a part of an undershirt and outer shirt and showing one of my improved devices supported in connection therewith.

Fig. 2 is a detail view of part of the construction shown in Fig. 1 on an enlarged scale.

Fig. 3 is a longitudinal section taken on the line 3—3 of Fig. 1 and showing only a part of the construction.

Fig. 4 is a plan view of one of the devices which I employ as seen in Figs. 1 to 3 inclusive.

Fig. 5 is a plan view of a modified form of device.

Fig. 6 is a partial section on the line 6—6 of Fig. 5.

Fig. 7 is a view similar to Fig. 5 showing another modification.

Fig. 8 is a partial section on the line 8—8 of Fig. 7; and,

Fig. 9 is a section on the line 9—9 of Fig. 7.

For the purpose of illustrating one use of my invention, I have shown at 10 in Fig. 1 of the drawing, the upper or waistband portion of a pair of trousers, at 11 a part of an undershirt or waist portion of an under garment to which is attached one or more tabs 12, and at 13 I have shown a part of the outer shirt, the lower end of which is arranged within the waistband of the trousers 10.

In practice, I preferably employ two of the tabs 12, one at each side of the undershirt 11 but only one of these tabs is shown and preferably consists of relatively strong material which is arranged vertically upon the shirt and stitched thereto as seen at 14 along

the peripheral edges of the tab 12, said tab being located at and above the waist portion of the garment 11 and is provided with a plurality of vertically spaced button-holes 15 whereby one of my improved coupling members 16 may be adjustably coupled with the tab 12. Arranged on the waist portion of the trouser 10 on the inner surface thereof and at the sides of the garment are buttons 17. The coupling device or member 16 is fashioned at one end to provide a comparatively large aperture 18 to receive the button 17 and this aperture terminates in a comparatively narrow aperture 19 arranged at the lower end of the coupling so that the button may be moved to the lower end of the coupling, the threads or other means 17*a* for attaching the button being arranged within the extension 19 as will be apparent.

The upper end of the coupling is provided with an arc-shaped crosshead 20 which joins the remainder of the device by a comparatively narrow neck 21 forming of the crosshead laterally extending and downwardly curved shoulders 22 whereby in attaching the coupling member 16 to the tab 12 by passing the crosshead 20 through one of the button holes 15, the shoulders 22 will operate to prevent any possible displacement of the member 16 by virtue of the curved or hook formation of said shoulders.

When the coupling 16 is secured in proper position upon the tab, it is attached to the trousers by passing the button 17 and part of the outer shirt 13 through the opening 18 as will be apparent, it being understood in this connection that the outer shirt 13 must be adjusted in such position as to be loosely and yet neatly supported upon the body of the wearer and the position of the member 16 adjusted to support the trousers comfortably.

It will also be understood that the trousers may be detached from the coupling at any time in the operation of removing the outer shirt 13 or said trousers. The coupling member 16 need not be detached from the under garment until the same is to be laundered, it being understood in this connection that the coupling 16 may be composed of any suitable sheet material such as metal, celluloid, bakelite, rubber, etc., and this also applies to the construction shown in Figs. 5 to 9 inclusive.

Instead of providing a single and relatively rigid body as in the coupling 16 shown in Figs. 1 to 4 inclusive, I may construct this device of two relatively movable parts as shown in Figs. 5 to 9 inclusive, one form of construction being shown in Figs. 5 and 6 and the other in Figs. 7, 8 and 9. In Figs. 5 and 6, the device consists of two parts 23 and 24, the part 23 having a crosshead 25 at one end similar to the crosshead 20 and having the laterally extending curved shoulder 25*a*; whereas the other part is provided with the key-hole aperture consisting of the large upper opening 24*a* and the relatively narrow lower opening 24*b*.

As indicated in dotted lines in Fig. 5, each part 23—24 of the device may be of similar construction; that is to say, the part 24 may have a crosshead similar to the crosshead 25 or the part 23 may have the key-hole aperture formation including the portions 24*a* and 24*b* so that the part 24 might be coupled with a button-hole in the waistband of the trousers, or on the other hand, the part 23 might be connected with buttons on an attaching tab instead of coupling the same with button holes. This will also be true of the construction shown in Fig. 7. The upper end of the part 24 terminates in a plate 26 having an elongated aperture 27, the hook-shaped side flanges 28 adapted to overlie the side edges of a similar plate 29 on the part 23, said plate having a downwardly projecting lug 30 adapted to operate in the aperture 27 to limit the relative movement of the parts 23 and 24 with respect to each other, the lower end of the plate 29 having a curved keeper 31 in which is mounted a spring 32, the end portions of which rest in curved channels 33 formed at the side edges of the part 24.

It will thus be seen that the parts 23 and 24 may be adjustable relatively to each other when the device is in use under the tension of the spring 32, so as to compensate for any undue stresses to which the device may be subjected; and at all times, the trousers will be supported on the body of the wearer resiliently, thus eliminating any uncomfortable binding that might otherwise prevail.

The same result may be accomplished by the construction shown in Figs. 7 to 9 inclusive, in which figures, two parts 34 and 35 are equivalent to the parts 23 and 24, but in this construction, said parts have overlying plate portions 36 and 37 respectively, each terminating in an end flange 36*a* and 37*a*, the plate 37 including hook-shaped side flanges 37*b* which serve to retain the plate 36 against displacement from the plate 37 and serve to guide said plates in their relative movement. This construction forms a box-shaped chamber in which is arranged a spring 38 formed from a strip of spring metal fashioned in the manner clearly seen in Fig. 7 of the drawing and which normally serves to support the parts 34 and 35 in collapsed position and will permit the separation of said parts under the compression of said spring.

It will be understood that while I have shown certain forms of construction for carrying my invention into effect and have illustrated a specific use of my invention that I am not necessarily limited in these respects, and various changes in and modifications of the construction herein shown and described may be made within the scope of the appended claims without departing from the spirit

of my invention or sacrificing its advantages.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A coupling for supporting a pair of trousers in connection with a shirt, said coupling being composed of two parts, means on one of said parts whereby the same may be attached to said shirt, means whereby the other part may be attached to the trousers, means for guiding said parts in their movement relatively to each other, means involving a resilient member coupling said parts together for yieldably supporting the trousers in connection with the shirt, and the first named part comprising a crosshead arranged on the outer end thereof, said crosshead terminating in laterally extending and inwardly curved shoulders.

2. A coupling for supporting a pair of trousers in connection with a shirt, said coupling being composed of two parts, means on one of said parts whereby the same may be attached to said shirt, means whereby the other part may be attached to the trousers, means for guiding said parts in their movement relatively to each other, means involving a resilient member coupling said parts together for yieldably supporting the trousers in connection with the shirt, the first named part comprising a crosshead arranged on the outer end thereof, said crosshead terminating in laterally extending and inwardly curved shoulders, and the other part having an aperture of key-hole shape.

3. A coupling device of the class described, one end portion of which is provided with a crosshead terminating in laterally extending and inwardly curved hook-shaped shoulders, and the other end portion thereof having a relatively large aperture of key-hole shape, the large portion of said aperture being arranged inwardly of said end and the elongated, narrower portion adjacent the outer part of said end, whereby the last named end portion of the device may be coupled with a button by passing the head thereof through the enlargement of said aperture and to arrange the attaching means of the button within the reduced end of said aperture, and said end portions of the device being composed of independent parts movable relatively to each other, and tensional means cooperating with adjacent and overlapped ends of said parts for controlling the separation thereof.

4. A coupling of the class described comprising two relatively movable coupling members, the adjacent ends of which overlap, means for retaining the overlapped portions of said members against lateral and longitudinal displacement, tensional means disposed between and cooperating with said members for normally supporting the same in contracted relation and permitting the extension thereof under the tension of said means, one of said members terminating at its free end in a crosshead having laterally extending shoulders and the other member having an elongated aperture, and said tensional means comprising a rod-like spring, the central portion of which is coupled to the inner end of one of said members and the ends thereof engaging keepers disposed at opposite sides of the other member.

In testimony that I claim the foregoing as my invention I have signed my name this 16th day of September, 1929.

HILARY T. STEVENSON.