Sept. 10, 1946. L. N. ALBERTS 2,407,466

CLASP

Filed April 15, 1944

FIG. 1

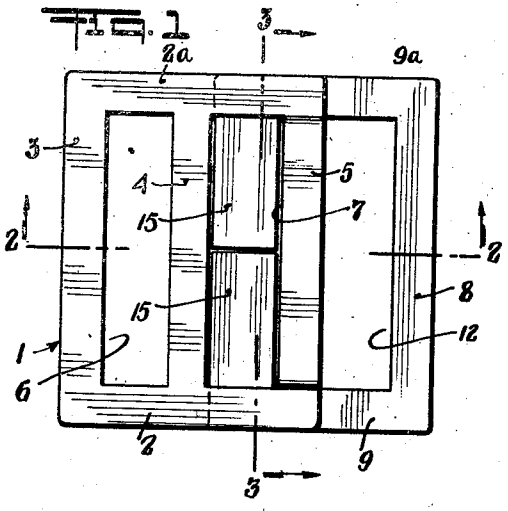


FIG. 3

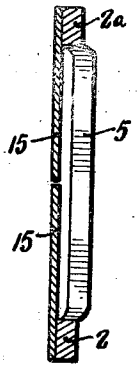


FIG. 5

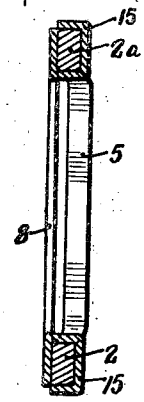


FIG. 2

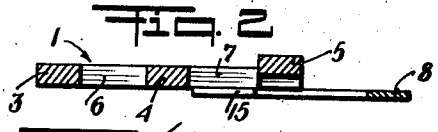


FIG. 4

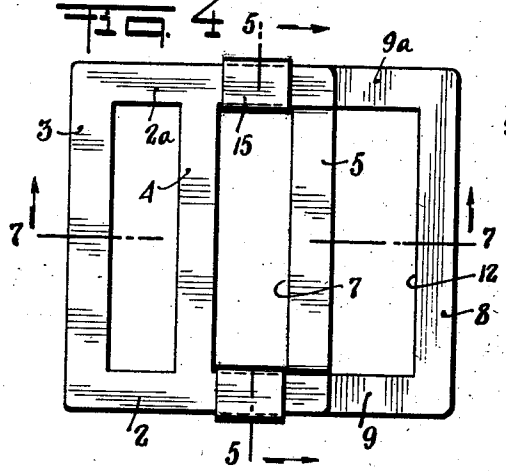


FIG. 6

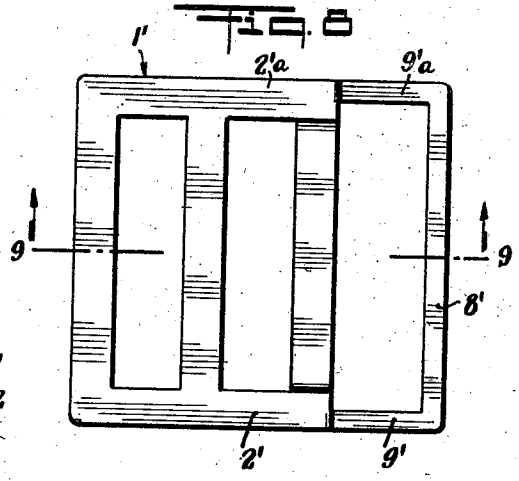


FIG. 8

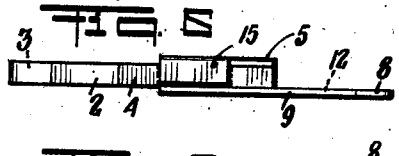


FIG. 9

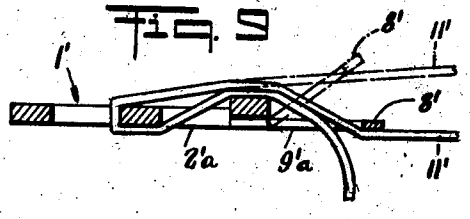
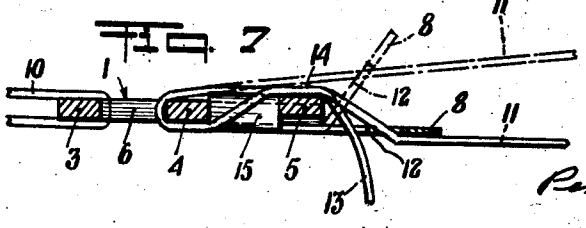


FIG. 7



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CLASP

Leon N. Alberts, New York, N. Y.

Application April 15, 1944, Serial No. 531,211

12 Claims. (Cl. 24—200)

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This invention relates to strap fastenings by which straps, such as shoulder or hose supporter straps, belts and the like, may be adjustably secured to articles of clothing such as women's undergarments. The object of the invention is to provide an improved strap fastening by means of which the strap may be easily taken up or let out.

In a form of strap fastening in common use, the end of the strap to be adjusted is threaded over and under a series of spaced bars formed in a plate-like body member to form a loop around one bar and folded back upon itself and held by friction against one of the other bars. In order to facilitate the adjustment of the strap, an opening is formed at the center of the outermost bar. By forcing the strap sidewise one edge can be worked out through this opening and this frees the strap sufficiently to enable the desired adjustment of it to be made. This manner of adjusting the strap is, however, objectionable because it is an annoying procedure and is too slow. The strap not only has to be worked out through the opening and then the adjustment made, but after the adjustment has been made the strap has to be again worked back through the opening into its slot. The adjustment is always a matter of cut-and-try so that it may be necessary to repeat this procedure several times before the desired adjustment is completed.

The aim of the present invention is to do away with this opening and the annoyance of having to work the strap in and out through it as a part of the procedure of adjusting the strap, and at the same time provide a construction in which the adjustment can be quickly accomplished.

The invention will be understood by referring to the accompanying drawing which, by way of example, illustrates two embodiments of the inventive idea. In the drawing:

Figs. 1 to 7, inclusive, illustrate a composite form of the fastening wherein the device is made in two parts secured to one another, whereas in the modification in Figs. 8 and 9 the device is made in one piece.

Fig. 1 is a plan view of the two parts of the composite device in position to be attached to one another but before the attachment has been accomplished;

Fig. 2 is a cross section taken on line 2—2 of Fig. 1;

Fig. 3 is a section on line 3—3 of Fig. 1;

Fig. 4 is a plan view similar to Fig. 1 of the completed fastening after the two parts have been fixed one to the other;

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Fig. 5 is a cross section taken on line 5—5 of Fig. 4;

Fig. 6 is a side view of the completed device as shown in Fig. 4;

Fig. 7 is a cross section taken on line 7—7 of Fig. 4 and showing the manner in which the strap is threaded through the slots of the fastening;

Fig. 8 is a plan view of the modified one-piece fastening; and

Fig. 9 is a cross section taken on line 9—9 of Fig. 8, and, like Fig. 7, shows the manner in which the strap is threaded through the device.

Referring now to the drawing, and first to Figs. 1–7, inclusive, the body of the fastening comprises a plate-like member, indicated generally by numeral 1, which comprises parallel side bars 2 and 2a, between which extend three parallel cross bars 3, 4 and 5, respectively. Bars 3 and 4 are spaced apart sufficiently to provide a slot 6 which is wide enough to accommodate two thicknesses of the strap material as shown in Fig. 7, and leave a small free space between them. Bars 4 and 5 have a slot 7 between them which need only be of sufficient width to accommodate a single thickness of strap material, but it should preferably permit this single thickness of material to slide freely within it in making the adjustment of the strap as will appear more fully below.

Body member 1 is preferably formed from substantially rigid material such as metal or plastic and the cross bar 5 at its right hand side is preferably offset as shown in Fig. 2 so that its upper surface is above the surface of the central cross bar 4 as is customary in order to provide an effective locking of the strap in adjusted position as will appear presently. The fourth, or outer, cross bar 8 of the fastening is connected to the fastening body 1 by means of a pair of flexible resilient legs 9 and 9a so that the cross bar 8 can be readily bent upwardly by the finger to approximately the position indicated by the dotted lines in Fig. 7. In using the fastening a loop 10 of ribbon or tape may be passed around the left-hand cross bar 3 and be appropriately secured to the upper edge of a garment (not shown) such as a brassiere or slip.

At the opposite end of the clasp a strap 11, for example a shoulder strap of the same garment, may be passed beneath right hand cross bar 8 upwardly through the slot 12 formed between this cross bar and bar 5, over the top of cross bar 5, thence over and around cross bar 4, forming a loop, and again over the top of cross bar 5, the free end 13 being of any suitable or con-

venient length. With the cross bar 8 in approximately the position shown in Fig. 7, the shoulder strap 11 is held locked. However, the movement of the cross bar 8 to the dotted position permits strap 11 also to be shifted to the dotted position, thus reducing the frictional binding between the surfaces of the strap at 14 sufficiently so that the strap can be shifted around bar 4 either to lengthen or to shorten it as desired. Then cross bar 8 is released and springs back to its full line position, again locking the adjusted parts of the strap.

As shown in Figs. 1–7, inclusive, cross bar 8 and its flexible resilient legs 9 are formed, for example, by stamping from spring material, such, for example, as steel or spring brass of such thinness and composition as to provide flexibility sufficient to give the required bending, as indicated in Fig. 7, and yet have sufficient stiffness to maintain bar 8 in position to cause the locking of the shoulder strap in the fastening device under the ordinary pull to which it is subjected.

In order to attach or secure legs 9 to the body 1 of the fastening, each of these legs has an inwardly extending lug 15 (Figs. 1 and 3). The two parts are laid one on the other, as shown in Figs. 1, 2 and 3, and lugs 15 are then wrapped around the two side bars 2, as shown in Fig. 5. Each of these lugs being of substantially the same width as slot 7 (Fig. 2), the flexible portion of the fastening is thus firmly and permanently attached to the body portion 1.

Referring now to the modification shown in Figs. 8 and 9, the body portion 1' which is in all respects similar to body portion 1, has legs 9' formed as integral extensions of the side bars 2', these legs, however, being thinner, as shown in Fig. 9, than the body portion 1' and also narrower than the side bars 2', if desired, with the object of providing the required flexible and resilient support of the outer cross bar 8'. The operation of the device in facilitating the adjustment of the shoulder strap 11' is substantially the same as described above. This operation may be understood by inspection of Fig. 9.

By means of the present invention, a shoulder strap slide fastening device has been provided which is unusually convenient to use. For example, in bending the flexibly mounted cross bar 8 to the dotted positions in either Fig. 7 or Fig. 9, the sides of the body of the fastening can be grasped between the thumb and second finger of the left hand, and bar 8 bent upwardly with the first finger. Then with the fingers of the right hand the readjustment of the shoulder strap can be accomplished, after which the mere release of bar 8 locks the strap in readjusted position.

It will be understood that other changes than the construction shown in the modification of Figs. 8 and 9 can be made without departing from the invention, the scope of which is indicated in the appended claims. Thus, for example, the flexible mounting of the cross bars 8 and 8' can be modified to a considerable extent. Also other means of attaching the arms 9, for example, by the use of welding instead of by providing the lugs 15 can be employed.

I claim:

1. A fastening device comprising a substantially rigid body portion having side members and at least two spaced cross bars, a locking bar extending in the same general direction as said cross bars, said locking bar being resiliently mounted on the body portion and normally held in a locking position.

2. A fastening device as set forth in claim 1 in which the locking bar is connected to the body portion by a pair of flexible, resilient arms which permit the locking bar to be swung relative to the body portion to an unlocking position.

3. A fastening device comprising a substantially rigid body portion having side members and three substantially parallel, spaced cross bars, a locking bar spaced from and substantially parallel to said crossbars, said locking bar being resiliently mounted on the body portion and normally held in a locking position.

4. A fastening device as set forth in claim 3 in which the locking bar is connected to the body portion by a pair of flexible, resilient arms forming continuations of said side members which permit the locking bar to be moved from its locking position to an unlocking position.

5. A fastening device comprising a substantially rigid body portion having side members and three substantially parallel, spaced cross bars, a locking bar spaced from and substantially parallel to said cross bars, said locking bar being resiliently mounted on the body portion and normally held in a locking position, said cross bars and the locking bar, when in its normal locking position, being disposed in substantially the same plane but with the cross bar nearest the locking bar being displaced slightly out of said plane.

6. A fastening device as set forth in claim 5 in which the locking bar is connected to the body portion by a pair of flexible, resilient arms forming continuations of said side members which permit the locking bar to be moved out of said plane to an unlocking position.

7. An adjustable strap fastening comprising a substantially rigid body portion having side members and two spaced cross bars, a locking bar extending in the same general direction as said cross bars at one side of them, and a strap passing under said locking bar, thence over both of said cross bars and around the one farthest from the locking bar, thence back over the other cross bar beneath the other fold of the strap, and finally back through the space between the locking bar and said other cross bar, the locking bar being resiliently mounted on the body portion and normally held in a position to cause the strap to be pressed against said other cross bar, but being displaceable to a position in which it does not cause the strap to be pressed against said other cross bar, to permit ready adjustment of the strap.

8. An adjustable strap fastening as set forth in claim 7 in which the locking bar is connected to the body portion by a pair of flexible, resilient arms.

9. An adjustable strap fastening comprising a substantially rigid body portion having side members and three substantially parallel, spaced cross bars, a locking bar spaced from and substantially parallel to said cross bars at one side of them, a strap looped around the cross bar farthest from the locking bar, a second strap passing under the locking bar, thence over the adjacent and middle cross bars and around the middle cross bar, thence back over said adjacent cross bar, beneath the other fold of the strap, and finally back through the space between the locking bar and the adjacent cross bar, the locking bar being resiliently mounted on the body portion and normally held in a position to cause the strap to be pressed against the adjacent cross bar, but being displaceable to a position in which it does not cause the strap to be pressed against said ad-

jacent cross bar to permit ready adjustment of the strap.

10. An adjustable strap fastening as set forth in claim 9 in which the locking bar is connected to the body portion by a pair of flexible, resilient arms forming continuations of said side members.

11. An adjustable strap fastening comprising a substantially rigid body portion having side members and three substantially parallel, spaced cross bars, a locking bar spaced from and substantially parallel to said cross bars at one side of them, and a strap passing under said locking bar, thence over the adjacent and middle cross bars and around the middle cross bar, thence back over the adjacent cross bar, beneath the other fold on the strap, and finally back through the space between the locking bar and the adjacent cross bar, the locking bar being resiliently mounted on the body portion and normally held in a position to cause the strap to be pressed against the adjacent cross bar, but being displaceable to a position in which it does not cause the strap to be pressed against the adjacent cross bar, to permit ready adjustment of the strap, the cross bars and the locking bar, when in position to cause the strap to be pressed against the adjacent cross bar, being disposed substantially in the same plane, but with the adjacent cross bar being displaced slightly out of said plane.

12. An adjustable strap fastening as set forth in claim 11 in which the locking bar is connected to the body portion by a pair of flexible, resilient arms forming continuations of said side members.

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