April 10, 1934. P. KRAKAUER 1,954,768

ADJUSTABLE RIBBON STRAP

Filed May 18, 1933

Fig. 1.

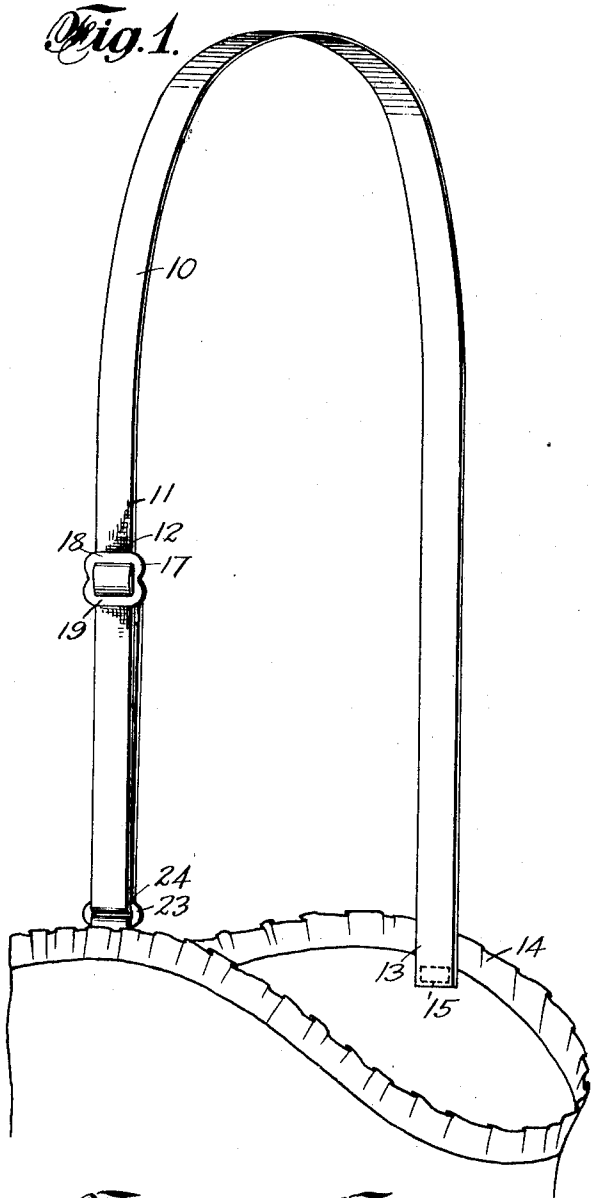


Fig. 2.

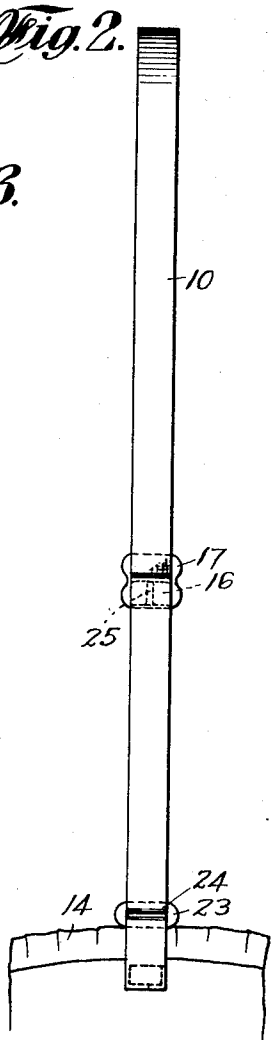


Fig. 3.

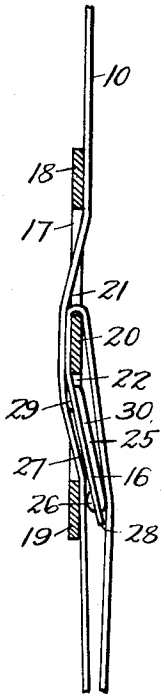


Fig. 4.

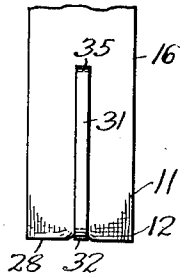


Fig. 5.

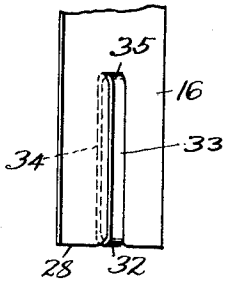
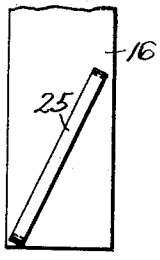


Fig. 6.



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ADJUSTABLE RIBBON STRAP

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Application May 18, 1933, Serial No. 671,653

6 Claims. (Cl. 241—12)

This invention relates to ribbon straps and particularly, to the type adapted to be secured to ladies' lingerie and underwear, and to serve as shoulder straps therefor.

In such shoulder straps, a slide buckle is customarily used for adjusting the effective length of the strap, and a loose loop carrying a length of ribbon is mounted on the strap. It has been customary to secure one end of the strap to the buckle by passing it through the buckle, bending it back on itself and stitching it in place so as to prevent the end of the strap from becoming detached from the buckle. The complete shoulder strap, including the buckle and loop assembly must be sold at an extremely low price, so that the stitching operation above-mentioned for securing one end of the strap to the buckle, forms a disproportionate part of the cost of the completely assembled strap.

My invention therefore contemplates the production of metallic fastening means secured to the end of the strap in such a manner as to prevent said end, though substantially free and unstitched, from being drawn through the buckle opening when in use, or when the strap is assembled to the buckle and other parts, while permitting the strap to be quickly and economically assembled with the remaining parts.

My invention further contemplates the provision of metallic fastener means passed through or about a single thickness of the material near the end of the strap to normally prevent disassembly of the parts, while at the same time serving to prevent unravelling of the strap end.

My invention further contemplates the provision of a strap provided with such metallic fastening means as are quickly and easily securable to the strap at minimum cost and in no way interfering either with the assembly of the parts or with the washing or cleaning of the garment to which the strap is attached.

My invention further contemplates the provision of a method for maintaining the strap end in place relatively to the buckle, whereby stitching is eliminated and whereby the filler threads of the woven ribbon strap are firmly held in place and prevented from unravelling, even when the strap and garment are washed.

The various objects of my invention will be clear from the description which follows, and from the drawing, in which,

Fig. 1 is a perspective view of my improved strap as it appears attached to a ladies' garment.

Fig. 2 is a rear view of the buckle and loop portion of the strap.

Fig. 3 is a vertical section of the buckle portion of my improved strap, showing the position assumed by the strap end just after it has been assembled with the buckle.

Fig. 4 is a top plan view of a modified form of my invention, showing a length of wire bent around the end of the strap to normally prevent removal thereof from the buckle.

Fig. 5 is a perspective view of the same.

Fig. 6 is a view similar to Fig. 4, of a strap end in which the staple shown in Figs. 1 to 3 inclusive is arranged in a modified position.

In that practical embodiment of my invention which I have illustrated by way of example, the strap 10 usually consists of a woven ribbon including longitudinal warp threads 11 and transverse filler or weft threads 12. One free end 13 of the strap, as it is supplied to the purchaser, is intended to be secured to the garment 14, of lingerie, underwear or the like, as by stitching 15. The other, preferably free end 16 of the strap, is provided with a metallic fastening element, shown in the form of an elongated wire member and intended to prevent the strap from being retracted through the slide buckle 17, under tension normally exerted upon the strap when in use. Said slide buckle is of the usual construction, consisting of the parallel end bars 18 and 19 (Fig. 3) and a center parallel cross bar 20.

The strap 10 is passed through the opening of a suitable loop 23, being thereby doubled on itself or folded as at 24, the loop depending loosely from the fold. The strap end 16 is passed underneath the end bar 18 of the buckle through the opening 21, over the center bar 20 through the opening 22 and underneath the end bar 19. The end 16 of the strap is similarly passed through the openings 22 and 21 of the slide buckle, having been preferably, though not necessarily first provided with a suitable metallic fastening element to prevent normal retraction of said end through the opening 22 of the buckle.

It will be understood that the fastening element at the end of the strap may take a variety of forms, and that I have illustrated two of the preferred forms thereof. In any case, however, the fastening element is preferably made of metal and passes through, or partly encloses the single thickness of the strap end and encompasses a substantial portion of the length of the strap and so as to reinforce and firmly hold a substantial number of the filler threads 12. The fastening element serves not only to prevent unravelling of the strap end, but also serves as an obstruction normally preventing the withdrawal of the strap end 16 through the openings 22 and 21 of the slide buckle 17.

As shown in Figs. 1, 2 and 3, the fastening element takes the form of an elongated metallic wire staple 25, preferably of suitable non-rusting metal such as brass or the like, and preferably coated to present a good appearance as by nickel-plating, painting or the like. One prong 26 of the staple is passed through the thickness of the strap end 16 and flanged over on to the face 27 close to the extreme end 28. The other prong

29 of the staple is similarly flanged over and bent toward the prong 26. The body 30 of the staple is integral with said prongs and is arranged longitudinally or somewhat diagonally of the strap, (Figs. 3 and 6). The staple is preferably of greater length than the width of the opening 22, so as to prevent withdrawal of the strap end 16 through said opening under tension on the strap due to the angular position which the strap end normally assumes under tension, and due further to the obstructing action of the staple body and prongs when drawn into contact with the center bar 20 and the end bar 19. The strap end with the staple 25 thereon may nevertheless be readily passed laterally through the openings 22 and 21 when the strap 10 is assembled with the buckle 17 and loop 23.

As shown in Figs. 4 and 5, the fastening element consists of a length of wire 31, having a bend 32 passed over the extreme end 28 of the strap portion 16, and comprising a pair of arms 33 and 34 of substantial length, pressed together on to the respective faces of the strap and thus firmly secured to the strap against detachment therefrom. If desired, the inner ends 35 of the arms 33 and 34 may be bent toward each other so as to grip the fabric and aid in preventing detachment of the wire 31. The length of each of said arms 33 and 34 is preferably greater than the opening 22 for the reasons given in connection with the staple 25.

As shown in Fig. 6, the staple need not necessarily be arranged parallel to the edges of the strap, but may be placed somewhat angularly or diagonally thereon provided that a substantial number of filler threads are gripped thereby.

It will be seen that I have provided simple and efficient metallic means, adapted to be economically and quickly secured in place for preventing normal withdrawal of the strap end from the strap and buckle assembly under tension put on the strap, and for reinforcing the filler threads and preventing unravelling thereof, and that I have provided means well adapted to meet the severe requirements of practical use, particularly, in view of the desirability of the provision of such means at minimum cost.

While I have shown and described certain specific embodiments of my invention, I do not wish to be understood as limiting myself thereto but intend to claim my invention as broadly as may be permitted by the state of the prior art and the scope of the appended claims.

I claim:

1. The combination with a shoulder strap, of an adjusting element having a pair of spaced transverse openings therein, adapted to have the ends of the strap passed therethrough, and means for preventing one of said ends from being retracted through said openings on tension applied in the normal direction to said strap, comprising an elongated staple having a body portion arranged longitudinally on one face of said end, said body portion extending over a length of said end greater than the width of the strap, said staple being of greater length than the width of either of said openings, and having a clinching portion engaging the other face of said end.

2. In a shoulder strap, a strap member comprising a ribbon woven of longitudinal warp threads and transverse filler threads, said strap member being folded on itself to provide a free end adapted to be attached to an article of lingerie and a second free end, a metallic loop loosely mounted at the fold of the strap member, a length of ribbon secured to the loop and adapted to be attached to said article, a slide buckle adjacent said second end of said strap member, said second end being passed through said buckle and being of a single thickness of material throughout, and a staple passed through said second end beyond the buckle at points spaced apart longitudinally a distance greater than the width of said end-portion, thereby preventing retraction of said second end through the buckle on tension applied to the strap member.

3. The combination with a slide buckle, of a folded strap having both of its end portions passed through the buckle, one of said end portions being longer than the other and overlying the other, and an elongated wire staple passed through said other end portion at two points spaced apart longitudinally of the staple and of the end portion a distance greater than the width of said end portion, and adapted to prevent retraction of said other end portion through the buckle on tension normally applied to the strap.

4. The combination with a slide buckle having a pair of spaced transverse openings therein, of a folded strap having both of its end portions passed through said openings, one of said end portions being normally longer than the other and being adapted to be secured to a garment, the longer end portion being arranged outside of the shorter end portion to conceal said shorter end portion, and an elongated wire staple having a main body portion arranged substantially longitudinally of said strap end portion and on one face thereof, and terminating in prongs passed through said end portion and bent over on to the other face of said end portion, said staple being longer than the width of either of the openings of said buckle.

5. The combination with a slide buckle having a pair of spaced transverse openings therein, of a folded ribbon strap woven of longitudinal warp threads and transverse filler threads, the unfolded ends of said strap being passed through the openings of the buckle, and an elongated wire staple having a body portion arranged longitudinally of the inner end portion of the strap, and thereby engaging a plurality of filler threads, said staple terminating in prongs passed through said inner strap end portion on to the other face thereof and bent toward each other to prevent unravelling of said filler threads and to serve as an obstruction resisting retraction of said inner strap end through the buckle.

6. The combination with a ribbon strap, of a slide buckle slidably mounted thereon, and an elongated narrow wire staple passing through the single thickness of said strap at one end thereof and passed through the buckle, said staple having a body portion arranged longitudinally of the strap and engaging a length of one face of the strap greater than the width of the strap, and having the remainder thereof engaging the other face of the strap, said staple normally preventing retraction of said end back through the buckle.

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