Aug. 15, 1939. J. A. GOLDFARB 2,169,492

REINFORCEMENT FOR UNDERGARMENTS

Filed July 2, 1938 3 Sheets-Sheet 1

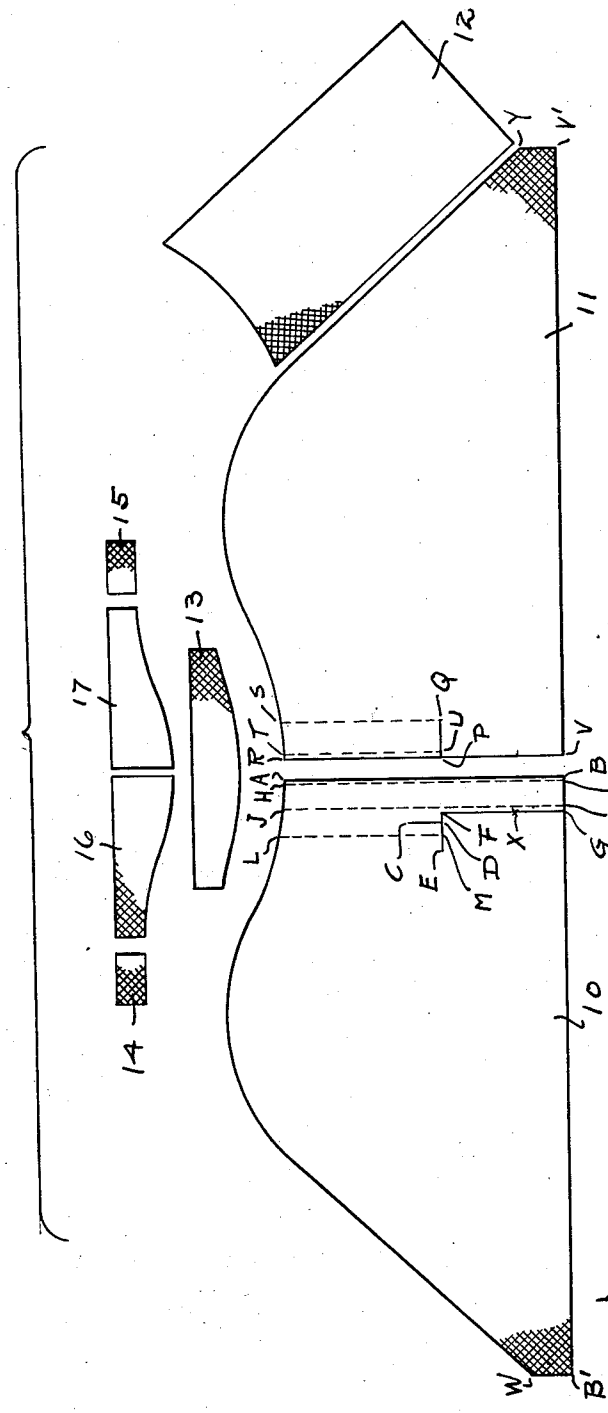


Fig. 1.

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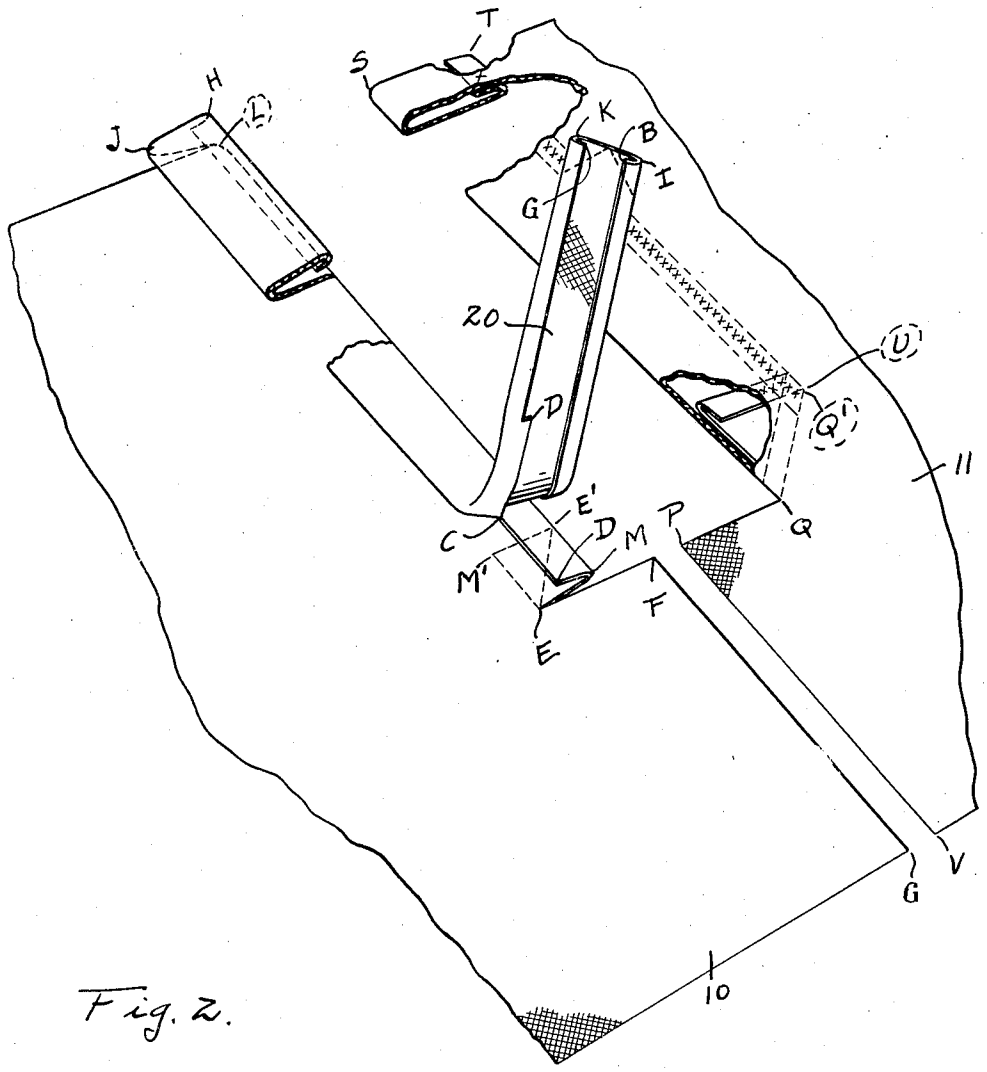


Fig. 2.

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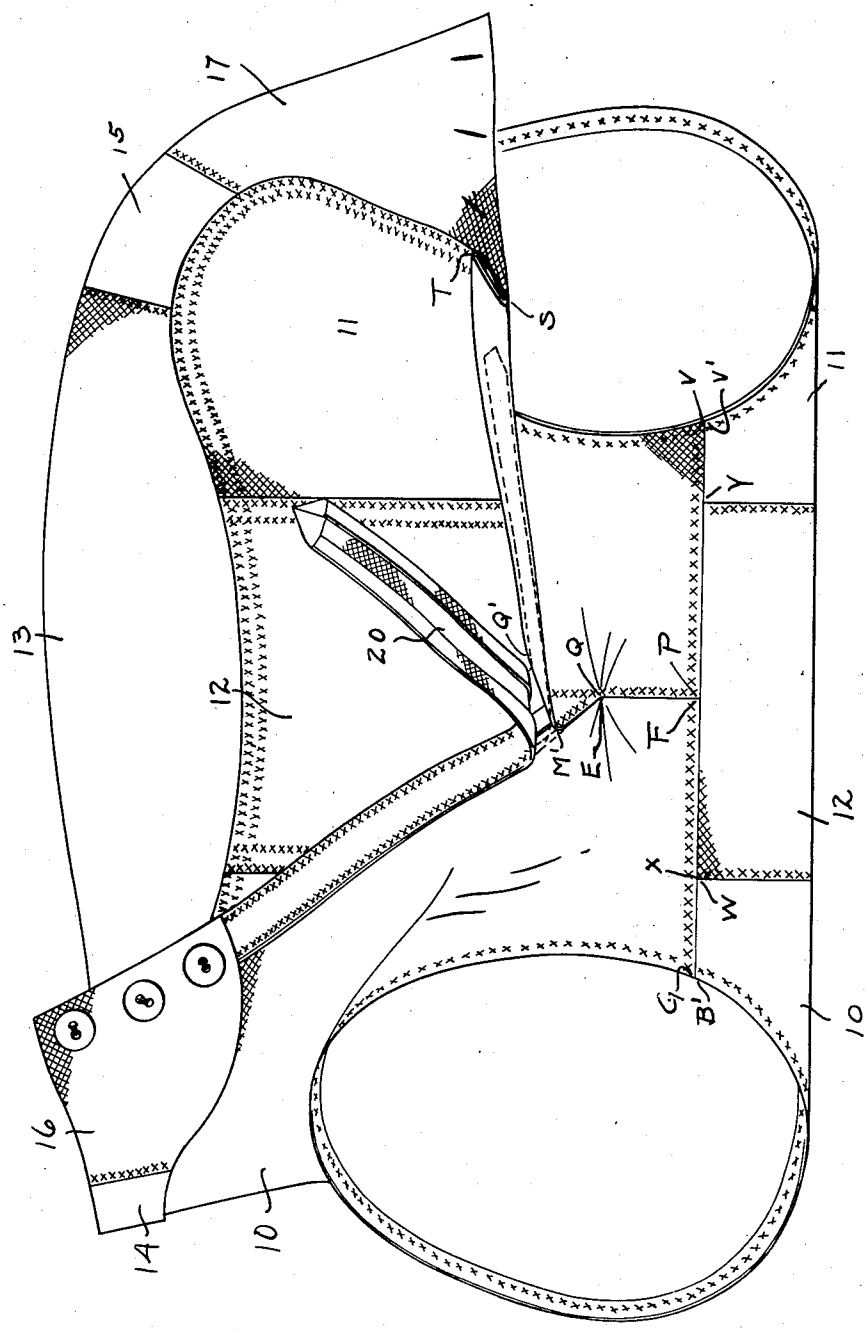


Fig. 3.

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UNITED STATES PATENT OFFICE

2,169,492

REINFORCEMENT FOR UNDERGARMENTS

Jacob A. Goldfarb, Frankfort, Ky., assignor to Union Underwear Company, Inc., Indianapolis, Ind., a corporation of Indiana

Application July 2, 1938, Serial No. 217,185

7 Claims. (Cl. 2—224)

This invention relates to the art of undergarments and particularly to means for reinforcing an opening in the garment so as to prevent tearing or ripping of seams.

A primary object of the invention is to provide a method of cutting the fabric elements in such a manner that a reinforcing strip integrally attached to one of the elements may be carried across a hem or seam uniting another element therewith so as to reinforce an opening therebetween particularly as to the junction of the elements about the opening.

I am aware of the fact that separate binding strips have been employed for a like purpose but my invention resides in the peculiar formation of a binding strip or tape carried integrally from one element across to another, as above indicated, in order that separate parts may be eliminated in order to permit quick assembly of the garment as well as to insure a better bound edge portion about said opening.

Further objects and advantages of the invention will appear to those versed in the art in the following description of one particular form of the invention as illustrated more or less diagrammatically in the accompanying drawings, in which

Fig. 1 is a plan view in disassembled relation of the various elements entering into the garment embodying the invention;

Fig. 2, a detail in front perspective indicating various steps in folding of the garment fabric; and

Fig. 3, a front view of the garment ready to complete the last step of stitching the free tape end into position.

Like characters of reference indicate like parts throughout the several views in the drawings.

In the form of garment herein shown, various pieces of fabric are cut to form the two main portions 10 and 11, a back panel 12, a back belt portion 13, belt elastic inserts 14 and 15, and front belt sections 16 and 17. The two portions 10 and 11 constitute the principal part of the garment with the back panel secured therebetween.

Referring to Fig. 1, the fabric piece 10 is cut to have an edge AB at right angles to the major edge BB'. Spaced back from that edge along the line BB' a slit is cut along the line GF in parallel relation to the line AB, the length of the slit at GF is slightly less than one half of the length of the line AB (depending upon the size of the garment). Beginning at the upper end of the slit GF, a slit EF is formed at right angles thereto for a comparatively short distance. Then at a point along the slit EF a slight distance removed from the end F, a short vertical slit CD is cut in parallel relation to the line AB.

The other major fabric portion 11 is provided with the vertical edge RV perpendicular to the lower major edge VV'. At a point along the line RV above that major edge a distance equal to the length of the line GF on the other portion, a slit PQ is cut parallel to the major edge VV', this slit PQ being substantially equal to the length of the slit EF. The fabric portion 10 is then formed into the garment by bringing the point B' around to the point G (the edge B'G preferably being hemmed first) and the short edge B'W is sewed along the edge of the slit GF beginning at the point G and continuing up therealong to the point X, the outer portion of the fabric between G and B being left free and unattached. The remainder of the slit edge XF is sewed to the lower end of the panel 12 which will bring the point F to substantially the midpoint across the panel end, Fig. 3, forming half of a transverse crotch seam hereinafter designated as the line GXFV. The other edge of the panel 10 beginning at the point W is stitched along the straight side of the panel 12 to its upper end and then around the belt portions. However, before stitching on the front belt portion 16, the portion 10 is further formed as will now be described.

The edge AB is folded around under itself along a fold line HI, Fig. 1, and then the edge portion is folded on the line LM back over the piece 10 and then again folded on the line JK to turn that edge portion back over itself into an S-fold to bring the line HI back to coincide with the line LM, Fig. 2. These folding portions leave a strip with a hem fold on both edges extending from the point C out to the end of the strip to the terminal line KI, Fig. 2.

That part of the fabric portion 10 under this strip between the point C and the terminal line EMD is then folded on a diagonal line EE' to have the point M carried over to the point M' into the dash line position and this part is then stitched to retain this position.

Referring now to the other fabric portion 11, that part of the edge being the slit PQ is folded back under the part 11 on the line SQ to have the edge folded in between on the line TU so as to bind that edge, and this turned under portion is then stitched in position. The lower end of this turned under section is, however, initially turned up on the diagonal line QQ', as indicated in Fig. 2, so that the end is thus stitched in covered position. The two portions 10 and 11 are then stitched together along the lines EF and PQ to complete a forwardly upwardly extending crotch seam normal to the transverse crotch seam GFPV. The edge PV is stitched along the remainder of the lower edge of the panel 12 from the point F and continued across the line YV' to complete the left hand leg opening of the garment and the balance of the transverse crotch

seam GFPV. The line Q'Q is brought over to fall on the line E'E and the two parts joined together by stitching therethrough together with a row of stitching following across on the line E'M'.

Then the free end, generally designated by the numeral **20**, has its outer end folded on the dash lines as indicated in Fig. 2, to have the strip terminate in a point, as indicated in Fig. 3, and this free strip **20** is brought down along the inside of that folded back edge of the fabric portion **11** which is bounded between the lines SQ and TQ' to come into a position as indicated by the dash lines in Fig. 3, and this strip is then stitched into position by passing the stitching through the turned under edges along each side of the strip **20**. Thus it is to be seen that this strip **20** starting out as an integral piece of the fabric part **10** is formed to extend continuously down along the side of the opening in the front of the garment and across the junction of the two pieces **10** and **11** on the line E'M' and then up the other edge portion. The front belt sections **16** and **17** are then sewed into place across the edge portions to complete the garment.

While I have herein shown and described my invention in the one best form as now known to me, it is obvious that structural changes may be employed without departing from the spirit of the invention, and I, therefore, do not desire to be limited to that precise form beyond the limitations as may be imposed by the following claims.

I claim:

1. In an undergarment, two members forming the major portion thereof and having a front opening, the front edge portion of one of said members being slit vertically from its bottom edge in parallel relation to its initially vertical edge, said bottom and vertical edges being initially straight and at right angles to each other, said slit having a length substantially equal to half of a transverse crotch seam into which the opposite vertical edge of said one member joins, an initially horizontal slit cut from said vertical slit a distance substantially equal to that desired for the positioning of the lower end of said opening above said seam, said other member being similar and of the same size but reversed in position in relation to said one member and being provided with like initially vertical and horizontal slits similarly positioned, the lower edge portions of both of said horizontal slits being secured one along the other in a seam normal to said first seam, and that part of said one member between its vertical slit and edge forming a strip turned from said opening back upwardly along the opening edge portion thereabove of said other member.

2. In an undergarment, two members forming the major portion thereof and having a front opening, the front edge portion of one of said members being slit vertically from its bottom edge in parallel relation to its initially vertical edge, said bottom and vertical edges being initially straight and at right angles to each other, said slit having a length substantially equal to half of a transverse crotch seam into which the opposite vertical edge of said one member joins, an initially horizontal slit cut from said vertical slit a distance substantially equal to that desired for the positioning of the lower end of said opening above said seam, said other member being similar and of the same size but reversed in position in relation to said one member and being provided with like initially vertical and horizontal slits similarly positioned, the lower edge portions of both of said horizontal slits being secured one along the other in a seam normal to said first seam, and that part of said one member between its vertical slit and edge forming a strip turned from said opening back upwardly along the opening edge portion thereabove of said other member, the upper edge portion of said other member being folded over onto itself into a hem to be under said strip.

3. In an undergarment, two members forming the major portion thereof and having a front opening, the front edge portion of one of said members being slit vertically from its bottom edge in parallel relation to its initially vertical edge, said bottom and vertical edges being initially straight and at right angles to each other, said slit having a length substantially equal to half of a transverse crotch seam into which the opposite vertical edge of said one member joins, an initially horizontal slit cut from said vertical slit a distance substantially equal to that desired for the positioning of the lower end of said opening above said seam, said other member being similar and of the same size but reversed in position in relation to said one member and being provided with like initially vertical and horizontal slits similarly positioned, the lower edge portions of both of said horizontal slits being secured one along the other in a seam normal to said first seam, and that part of said one member between its vertical slit and edge forming a strip turned from said opening back upwardly along the opening edge portion thereabove of said other member, a short vertical slit extending above the said one member horizontal slit beginning at a point spaced outwardly from its inner end, the corner between said short slit and the horizontal slit being turned over onto the said one member along a diagonally outwardly and upwardly extending line, and the outer corner of the said other member at its horizontal slit being likewise turned over on that member on a diagonal fold line, the said two members being overlapped to have the diagonal fold lines coinciding with a horizontal line at their upper ends forming the closing line of the end of said opening.

4. In an undergarment, two members forming the major portion thereof and having a front opening, the front edge portion of one of said members being slit vertically from its bottom edge in parallel relation to its initially vertical edge, said bottom and vertical edges being initially straight and at right angles to each other, said slit having a length substantially equal to half of a transverse crotch seam into which the opposite vertical edge of said one member joins, an initially horizontal slit cut from said vertical slit a distance substantially equal to that desired for the positioning of the lower end of said opening above said seam, said other member being similar and of the same size but reversed in position in relation to said one member and being provided with like initially vertical and horizontal slits similarly positioned, the lower edge portions of both of said horizontal slits being secured one along the other in a seam normal to said first seam, and that part of said one member between its vertical slit and edge forming a strip turned from said opening back upwardly along the opening edge portion thereabove of said other member, a short vertical slit extending above the said one member horizontal slit beginning at a point spaced outwardly from its inner end, the corner between said short slit and the horizontal

slit being turned over onto the said one member along a diagonally outwardly and upwardly extending line, and the outer corner of the said other member at its horizontal slit being likewise turned over on that member on a diagonal fold line, the said two members being overlapped to have the diagonal fold lines coinciding with a horizontal line at their upper ends forming the closing line of the end of said opening, the edge portion of said one member being folded over and stitched into a hem above the horizontal slit in that member, the hem continuing in effect on throughout the strip length.

5. In an undergarment, two members forming the major portion thereof and having a front opening, the front edge portion of one of said members being slit vertically from its bottom edge in parallel relation to its initially vertical edge, said bottom and vertical edges being initially straight and at right angles to each other, said slit having a length substantially equal to half of a transverse crotch seam into which the opposite vertical edge of said one member joins, an initially horizontal slit cut from said vertical slit a distance substantially equal to that desired for the positioning of the lower end of said opening above said seam, said other member being similar and of the same size but reversed in position in relation to said one member and being provided with like initially vertical and horizontal slits similarly positioned, the lower edge portions of both of said horizontal slits being secured one along the other in a seam normal to said first seam, and that part of said one member between its vertical slit and edge forming a strip turned from said opening back upwardly along the opening edge portion thereabove of said other member, a short vertical slit extending above the said one member horizontal slit beginning at a point spaced outwardly from its inner end, the corner between said short slit and the horizontal slit being turned over onto the said one member along a diagonally outwardly and upwardly extending line, and the outer corner of the said other member at its horizontal slit being likewise turned over on that member on a diagonal fold line, the said two members being overlapped to have the diagonal fold lines coinciding with a horizontal line at their upper ends forming the closing line of the end of said opening, the edge portion of said one member being folded over and stitched into a hem above the horizontal slit in that manner, the hem continuing in effect on throughout the strip length, said hem comprising a Z-fold, and said strip having folded edges but substantially single material thickness.

6. In an undergarment, two members forming the major portion thereof and having a front opening, the front edge portion of one of said members being slit vertically from its bottom edge in parallel relation to its initially vertical edge, said bottom and vertical edges being initially straight and at right angles to each other, said slit having a length substantially equal to half of a transverse crotch seam into which the opposite vertical edge of said one member joins, an initially horizontal slit cut from said vertical slit a distance substantially equal to that desired for the positioning of the lower end of said opening above said seam, said other member being similar and of the same size but reversed in position in relation to said one member and being provided with like initially vertical and horizontal slits similarly positioned, the lower edge portions of both of said horizontal slits being secured one along the other in a seam normal to said first seam, and that part of said one member between its vertical slit and edge forming a strip turned from said opening back upwardly along the opening edge portion thereabove of said other member, a short vertical slit extending above the said one member horizontal slit beginning at a point spaced outwardly from its inner end, the corner between said short slit and the horizontal slit being turned over onto the said one member along a diagonally outwardly and upwardly extending line, and the outer corner of the said other member at its horizontal slit being likewise turned over on that member on a diagonal fold line, the said two members being overlapped to have the diagonal fold lines coinciding with a horizontal line at their upper ends forming the closing line of the end of said opening, the edge portion of said one member being folded over and stitched into a hem above the horizontal slit in that manner, the hem continuing in effect on throughout the strip length, said hem being formed by initially folding that edge portion back over the member along a line inside of said vertical slit and thence on a line initially outside that slit.

7. In an undergarment, two members forming the major portion thereof and having a front opening, the front edge portion of one of said members being slit vertically from its bottom edge in parallel relation to its initially vertical edge, said bottom and vertical edges being initially straight and at right angles to each other, said slit having a length substantially equal to half of a transverse crotch seam into which the opposite vertical edge of said one member joins, an initially horizontal slit cut from said vertical slit a distance substantially equal to that desired for the positioning of the lower end of said opening above said seam, said other member being similar and of the same size but reversed in position in relation to said one member and being provided with like initially vertical and horizontal slits similarly positioned, the lower edge portions of both of said horizontal slits being secured one along the other in a seam normal to said first seam, and that part of said one member between its vertical slit and edge forming a strip turned from said opening back upwardly along the opening edge portion thereabove of said other member, a short vertical slit extending above the said one member horizontal slit beginning at a point spaced outwardly from its inner end, the corner between said short slit and the horizontal slit being turned over onto the said one member along a diagonally outwardly and upwardly extending line, and the outer corner of the said other member at its horizontal slit being likewise turned over on that member on a diagonal fold line, the said two members being overlapped to have the diagonal fold lines coinciding with a horizontal line at their upper ends forming the closing line of the end of said opening, said strip having that edge originally along the vertical slit in said one member folded under itself and continuing back to the upper end of said short vertical slit, the upper end of said short slit terminating substantially at said closing line.

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