

Dec. 17, 1940.

H. WIPPERMAN

2,225,514

SLIDE FASTENER APPLICATION FOR GARMENTS

Filed Aug. 11, 1939

2 Sheets-Sheet 1

Fig. 1.

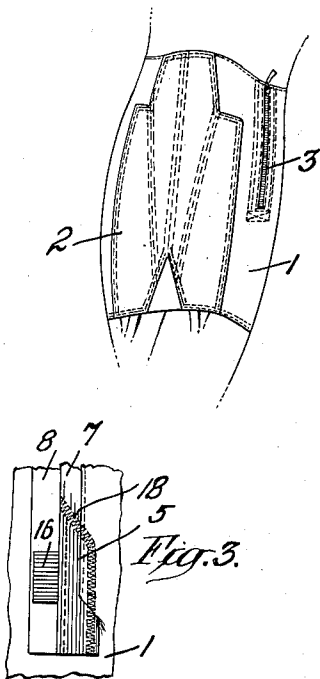


Fig. 2.

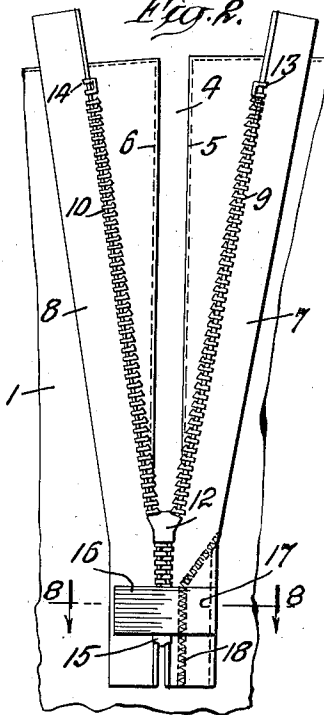


Fig. 3.

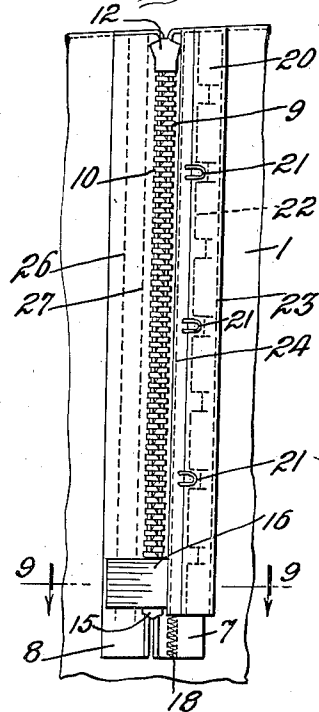


Fig. 4.

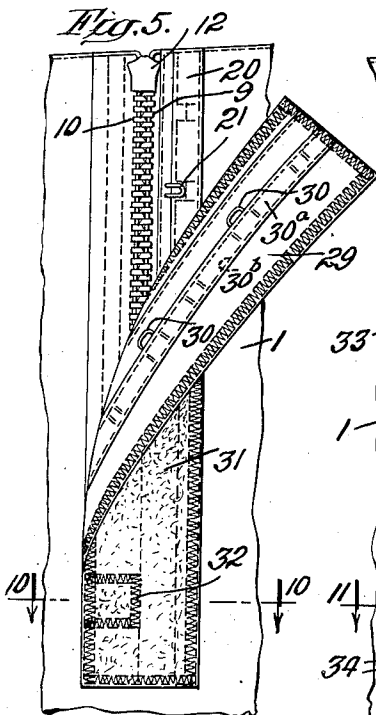


Fig. 5.

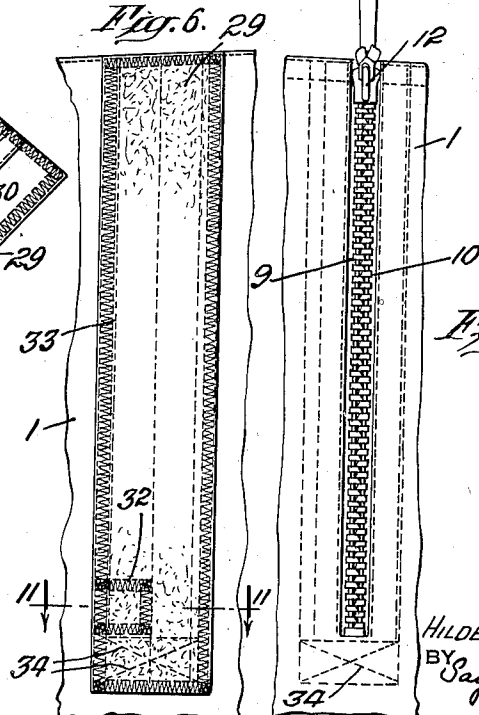
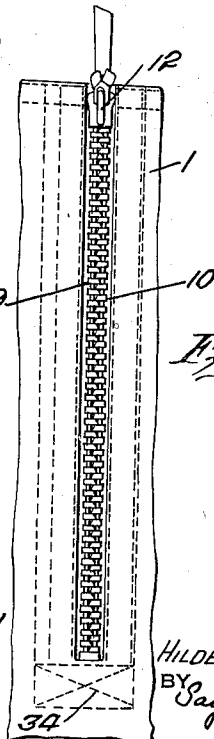


Fig. 6.



INVENTOR
HILDEGARD WIPPERMAN
BY Sager & Malcolm
ATTORNEYS

Dec. 17, 1940.

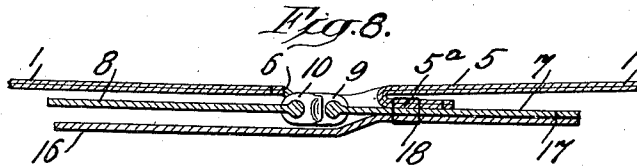
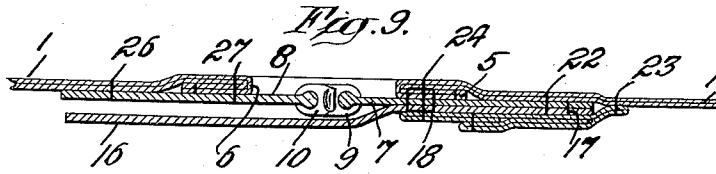
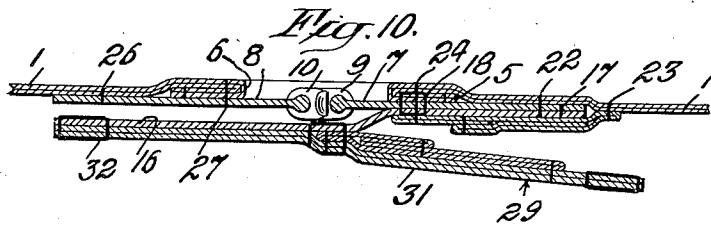
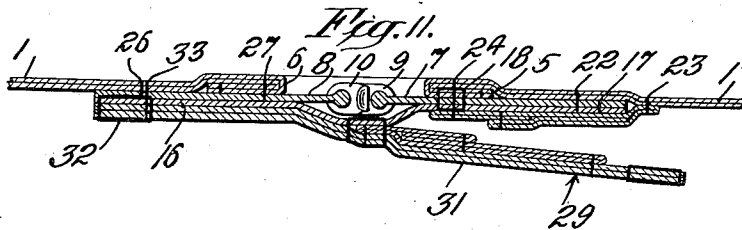
H. WIPPERMAN

2,225,514

SLIDE FASTENER APPLICATION FOR GARMENTS

Filed Aug. 11, 1939

2 Sheets-Sheet 2



INVENTOR
HILDEGARD WIPPERMAN
BY *Sager & Malcolm*
ATTORNEYS

UNITED STATES PATENT OFFICE

2,225,514

SLIDE FASTENER APPLICATION FOR
GARMENTSHildegard Wipperman, Chicago, Ill., assignor to
The H. W. Gossard Co., Chicago, Ill., a corpora-
tion of Illinois

Application August 11, 1939, Serial No. 289,566

7 Claims. (Cl. 2—38)

This invention relates to garments such as corsets, girdles, combination garments and the like employing slide fasteners, and has for its object to provide an improved method of applying such fasteners and improved means for insuring their efficient operation throughout the life of the garment.

The invention is especially applicable to foundation garments, etc., having slide fastener tapes or stringers which remain permanently connected at their inner or lower extremity, as distinguished from those which may be completely separated when the fastener is open. It may be embodied, for example, in a girdle having an opening extending only part way down the front or side so that the garment must be pulled on over the hips. In such case, the strain induced by pulling the garment on or off is frequently sufficient to tear or rip the fabric, split the fastener or pull the slider off over the fastener elements, or even spread the slider in such a way as to render the article useless.

This difficulty, which in the corset industry is responsible for the return of thousands of damaged garments every year, has resulted in numerous attempts to strengthen the permanently connected ends of the closure against which the slider abuts when the fastener is open, but heretofore these attempts have been far from successful, usually resulting in a bulky, unsightly or expensive construction. My invention provides an improved method of applying these fasteners to garments which avoids the disadvantages of the prior art.

The various features and advantages of my invention will be described in connection with the accompanying drawings, in which:

Fig. 1 is a front view of a girdle having a slide fastener applied thereto in accordance with my invention;

Fig. 2 is a fragmentary view of the inner face of the garment, showing the first step in the attachment of the slide fastener thereto;

Fig. 3 is a detail view showing the lower portion of the fabric of Fig. 2 folded over, and further illustrates the first step in the attachment of the slide fastener to the garment;

Fig. 4 is a view of the inner face of the garment, as in Fig. 2, which shows the second step in the attachment of the fastener;

Fig. 5 is a view taken from the same position as Figs. 2 and 4, showing the third step in the attachment of the fastener and its associated protecting shield;

Fig. 6 is a similar view showing the final step in the attachment of the fastener and protecting shield as viewed from the inner face of the garment;

Fig. 7 shows the fastener completely attached, as viewed from the outer face of the garment;

Fig. 8 is a transverse section taken on line 8—8 of Fig. 2;

Fig. 9 is a similar section taken on line 9—9 of Fig. 4;

Fig. 10 is a similar section taken on line 10—10 of Fig. 5; and

Fig. 11 is a transverse section through the completely attached fastener taken on line 11—11 of Fig. 6.

The foundation garment shown in Fig. 1 for purposes of illustration comprises a girdle having a body portion 1 of elastic fabric and a front panel 2 of inelastic material. A slide fastener 3 is arranged in the body portion 1 and extends downwardly from the upper edge of the garment to a point below the hip line. The garment is generally of standard construction and only so much thereof has been shown and described as is necessary to an understanding of this invention.

As illustrated in Fig. 2, the body portion of the garment has a slit or opening 4 to the adjacent edges 5 and 6 of which the slide fastener is to be attached.

The slide fastener is of the usual construction comprising a pair of stringers 7 and 8 containing cooperating rows of interlocking fastener members 9 and 10 operated by a slider 12. The stringers contain the usual upper stop members 13 and 14 which limit the upward movement of the slider 12 when the fastener is closed, and a bottom stop 15 which connects the stringers permanently at their lower ends and acts as a stop for the slider 12 when the fastener is opened.

The first step in attaching the slide fastener to the garment is illustrated in Fig. 2 which shows the inner face of the garment. A reinforcing tape 16 has one end stitched at 17 to the fastener stringer 7 so that the tape spans the two stringers 7 and 8 transversely at about the lower end of the opening. The lower extremity of the edge 5 of the garment is then folded over, as at 5a, Fig. 8, and the fastener stringer 7 and reinforcing tape 16 are stitched to this lower folded portion of the edge 5 by a zigzag stitch 18. The zigzag stitch 18 passes through the folded edge 5a, the stringer 7 and the reinforcing tape 16 as close as practical to the adjacent fas-

tener members 9. A zigzag stitch, because of its strength, is particularly suited for this purpose. In the embodiment shown the stitch extends upwardly over the folded edge 5a and then outwardly to the edge of the stringer. In this way it may be applied in a single continuous pass of the fabric through the sewing machine.

The fastener stringer 7 and the reinforcing tape 16 are then both attached to the edge 5 of the garment by a row of stitches 22. A fastener tape 20 which in this instance contains a plurality of spaced hooks 21, is superimposed upon the fastener stringer 7, and this tape 20 and stringer 7 are sewn to the edge 5 of the fabric by rows of stitches 23 and 24. The fastener stringer 8 is likewise sewn to the edge 6 of the fabric by parallel rows of stitches 26 and 27 (Figs. 4 and 9).

Figs. 5 and 10 show the attachment of the protecting shield 29, one face of which contains a plurality of eyes 30, and the other face of which provides a soft plush or fabric finish 31. The eyes 30 may, for example, be attached to a tape 30a which may be stitched to the shield 29 by stitches 30b. This shield 29 is superimposed upon the fastener in the proper position so that the eyes 30 will mate with the hooks 21, and the shield 29 is then sewn to the free end of the reinforcing tape 16 with a zigzag stitch 32.

Figs. 6 and 11 show the final step wherein the shield 29 is sewn to the edge 6 of the garment by vertical stitches 33, and has its lower end sewn to the fabric beneath the slider fastener and beneath the reinforcing tape 16 by stitches 34. Fig. 6 shows the completed inner face of the garment, while Fig. 7 shows the outer face of the finished garment. It will be noted that the slide fastener is completely covered by the shield 29. The shield is soft and flexible and protects the flesh of the wearer. Only a minimum number of stitches are visible, the zigzag stitches 18 and 32 being entirely concealed. The stringers, hook and eye tape and reinforcing tape are located on the inside where they are concealed from view. The reinforcing tape is secured at both ends by strong zigzag stitches although such stitches are not visible on the face of the garment. The reinforcing tape 16, joining the two sides of the garment at the lower end of the slit 4 takes up the entire strain on the fabric and on the slide fastener when the garment is pulled on or off and prevents the fabric from tearing out and the fastener from bending or becoming distorted or being otherwise damaged. Furthermore this is accomplished without the use of unsightly stitches visible on the front of the garment. The reinforcing tape 16 is so positioned that it cannot catch on the slider or otherwise interfere with the operation thereof.

Heretofore attempts have been made to introduce various kinds of reinforcing stitches for the above purpose. Such attempts, however, have not been satisfactory because the reinforcing means were either not sufficiently strong to take up the strain, or when made strong the reinforcing means were bulky and unsightly. It will be noted that in accordance with the present invention the shields may be made of comparatively thin soft material because their main function is to prevent the metal fasteners from coming in contact with the flesh of the wearer. A particular advantage of this feature is that it makes it possible to avoid the use of a stiff heavy shield with sharp corners. My improved construction also avoids heavy stitching on the outside of the

garment which would detract from its appearance, and it likewise avoids all heavy stitching through the body of the cloth which might tear out when under tension.

The particular method of assembly referred to above is well adapted to commercial production and results in an improved fastener application. Furthermore, by attaching the fastener stringers to the garment prior to the application of the fastener tape 20, the number of rows of stitches that extend through the garment and are visible on the face thereof is reduced to a minimum. It is to be understood, of course, that the fastener tapes 20 may carry buttons or snap fastener elements or the like, in which event the cooperating elements are attached to the shield 29. A particular embodiment has been shown only for purposes of illustration. Various changes and modifications may be made in the construction of the garment as will be readily apparent to a person skilled in the art.

The invention claimed is:

1. Method of attaching a pair of cooperating slide fastener stringers to the edges of a fabric opening which is to be permanently closed at one end, which comprises stitching a reinforcing tape to one of said stringers with its free end extending transversely across said stringers adjacent the closed end thereof, stitching said first stringer with said reinforcing tape to one of said edges, stitching the other of said stringers to the other of said edges, stitching a shield to the free end of said tape and stitching said shield, tape and stringer to said other edge to provide a structure wherein the stitches which secure the first stringer and the shield to said tape are not visible on the outer face of the fabric and in which the shield is free from the tape on the side of said first stringer.

2. Method of attaching a pair of cooperating slide fastener stringers to the edges of a fabric opening which is to be permanently closed at one end, which comprises stitching a reinforcing tape to one of said stringers with the free end of said tape extending transversely across said stringers adjacent the closed end thereof, folding over one of said edges to form a two ply edge hem, stitching said reinforcing tape and said first stringer to the lower part of said hem by a zigzag stitch extending longitudinally and thence across said hem in a continuous unbroken line, stitching both of said stringers to said edges by longitudinal rows of stitches, stitching a shield to the free end of said reinforcing tape and stitching said shield, reinforcing tape and stringer to the other of said edges by additional longitudinal rows of stitches extending through the various layers to provide a structure wherein the stitches which secure the first stringer and the shield to said tape are not visible on the outer face of the fabric and in which the shield is free from the tape on the side of said first stringer.

3. Method of attaching a pair of cooperating slide fastener stringers to the edges of a fabric opening which is to be permanently closed at one end, which comprises stitching a reinforcing tape to one of said stringers with the free end of said tape extending transversely across said stringers adjacent the closed end thereof, folding over one of said edges to form a two ply edge hem, stitching said reinforcing tape and said first stringer to the lower part of said hem by a zigzag stitch extending longitudinally and thence across said hem in a continuous unbroken line, stitching both of said stringers to said edges by longi-

tudinal rows of stitches, stitching a fastener tape over said first stringer, stitching to the free end of said reinforcing tape a shield having fastener elements thereon cooperating with said fastener tape and stitching said shield, reinforcing tape and stringer to the other of said edges by additional longitudinal rows of stitches extending through the various layers to provide a structure wherein the stitches which secure the first stringer and the shield to said tape are not visible on the outer face of the fabric and in which the shield is free from the tape on the side of said first stringer.

4. A fabric having an opening closed by a pair of slide fastener stringers closed at one end and stitched to said fabric on opposite sides of said opening, a transverse reinforcing tape spanning the closed end thereof, a fastener tape and a shield over the respective stringers and stitched thereto through said fabric, said reinforcing tape being secured to said shield and to the opposite stringer by stitches which extend through the tape and through the shield and stringers respectively and not through the front face of the fabric itself, said shield being free from said reinforcing tape on one side of said opening.

5. A fabric having an opening closed by a pair of slide fastener stringers closed at one end and stitched to said fabric on opposite sides of said opening, a transverse reinforcing tape spanning the closed end thereof, a fastener tape and a shield over the respective stringers and stitched thereto through said fabric, said reinforcing tape being secured on opposite sides of said opening by spaced zigzag stitches which extend through the reinforcing tape and through said fastener tape and shield but not through the front face of the fabric itself and being free at said opening so as not to interfere with the fastener slider.

6. A fabric having an opening closed by a pair of slide fastener stringers closed at one end and stitched to said fabric on opposite sides of said opening, a reinforcing tape stitched to one of said stringers with the free end of said tape extending transversely across said stringers ad-

jacent the closed end thereof, the free edge of the fabric on the side of said first stringer being folded over to form a two-ply edge hem, said reinforcing tape and said first stringer being stitched to the lower part of said hem by a zigzag stitch extending longitudinally and thence across said hem in a continuous unbroken line and being concealed by said hem from the outer face of the fabric, a shield stitched to the free end of said reinforcing tape on the side of the other of said stringers, said shield, said reinforcing tape and said other stringer being stitched to the other of said edges by additional longitudinal rows of stitches extending through the various layers, said shield being free from said tape on the side of said first stringer whereby it may be readily folded back to expose the slide fastener.

7. A fabric having an opening closed by a pair of slide fastener stringers closed at one end and stitched to said fabric on opposite sides of said opening, a reinforcing tape stitched to one of said stringers with the free end of said tape extending transversely across said stringers adjacent the closed end thereof, the free edge of the fabric on the side of said first stringer being folded over to form a two-ply edge hem, said reinforcing tape and said first stringer being stitched to the lower part of said hem by a zigzag stitch extending longitudinally and thence across said hem in a continuous unbroken line and being concealed by said hem from the outer face of the fabric, a shield stitched to the free end of said reinforcing tape on the side of the other of said stringers, said shield, said reinforcing tape and said other stringer being stitched to the other of said edges by additional longitudinal rows of stitches extending through the various layers, said shield being free from said tape on the side of said first stringer whereby it may be readily folded back to expose the slide fastener, and a fastener tape secured over said first stringer, said shield having fastener elements cooperating with said fastener tape for securing the respective elements.

HILDEGARD WIPPERMAN.