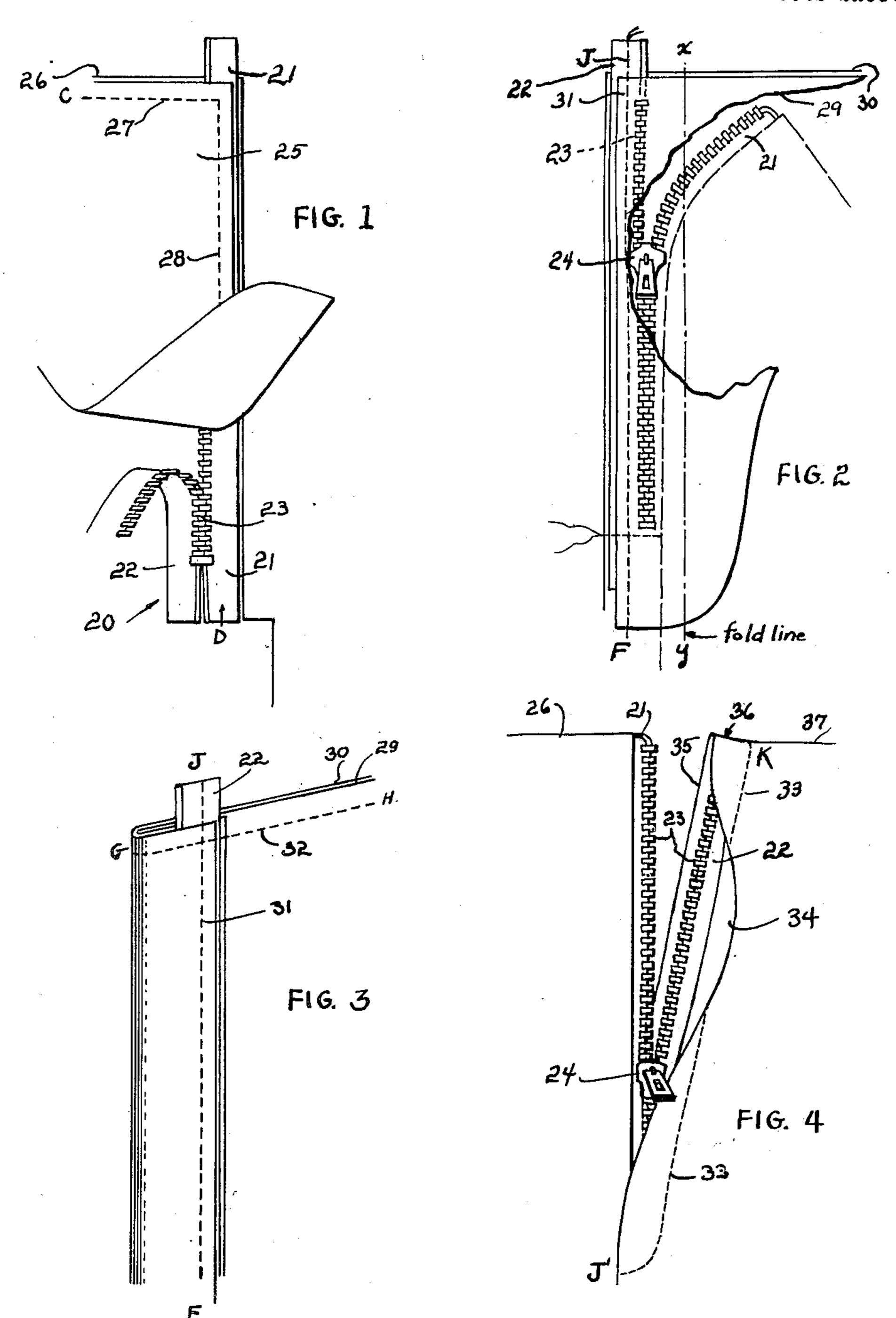
SLIDE FASTENER CLOSURE FOR APPAREL

Filed Aug. 13, 1949

3 Sheets-Sheet 1



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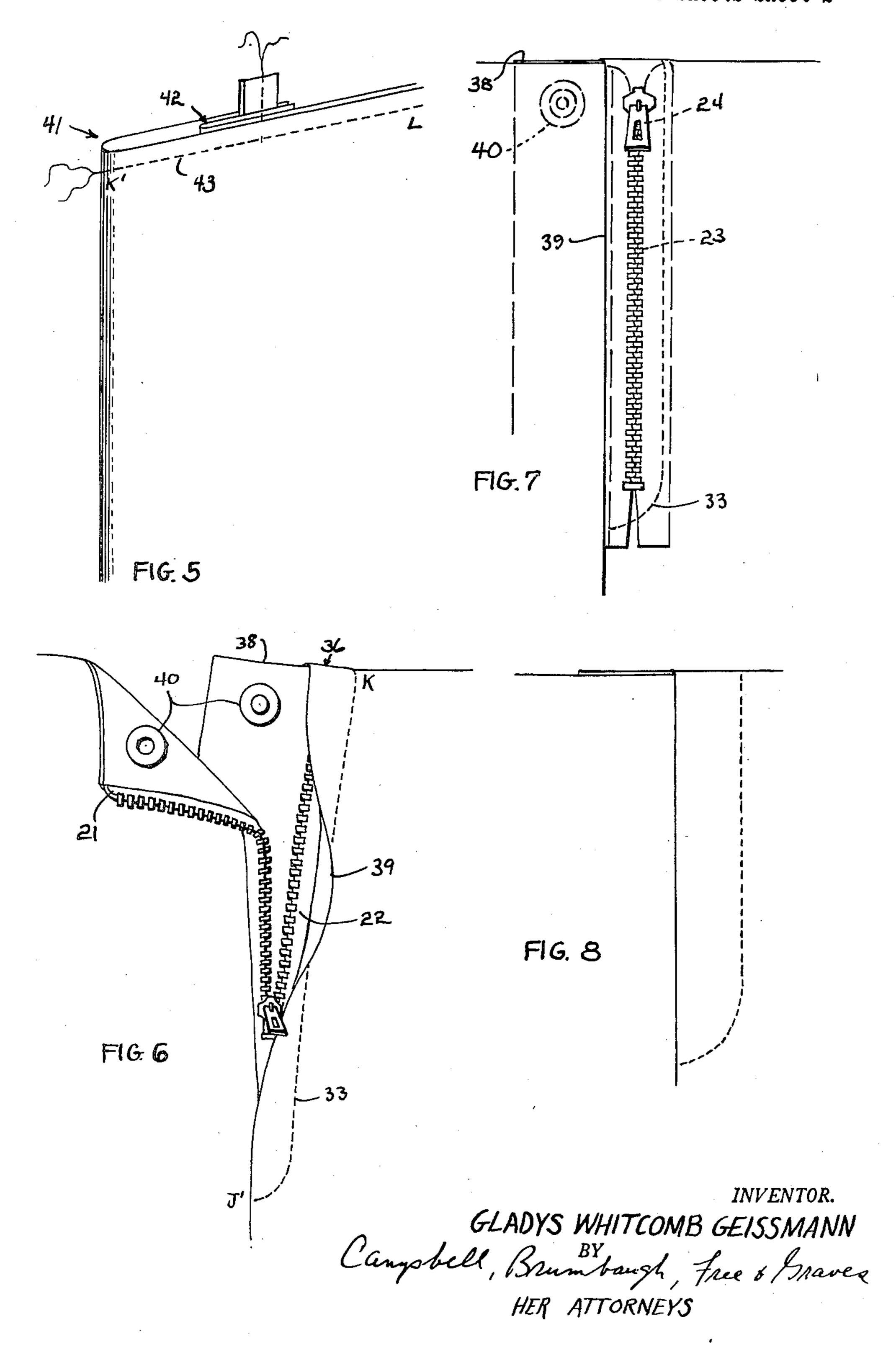
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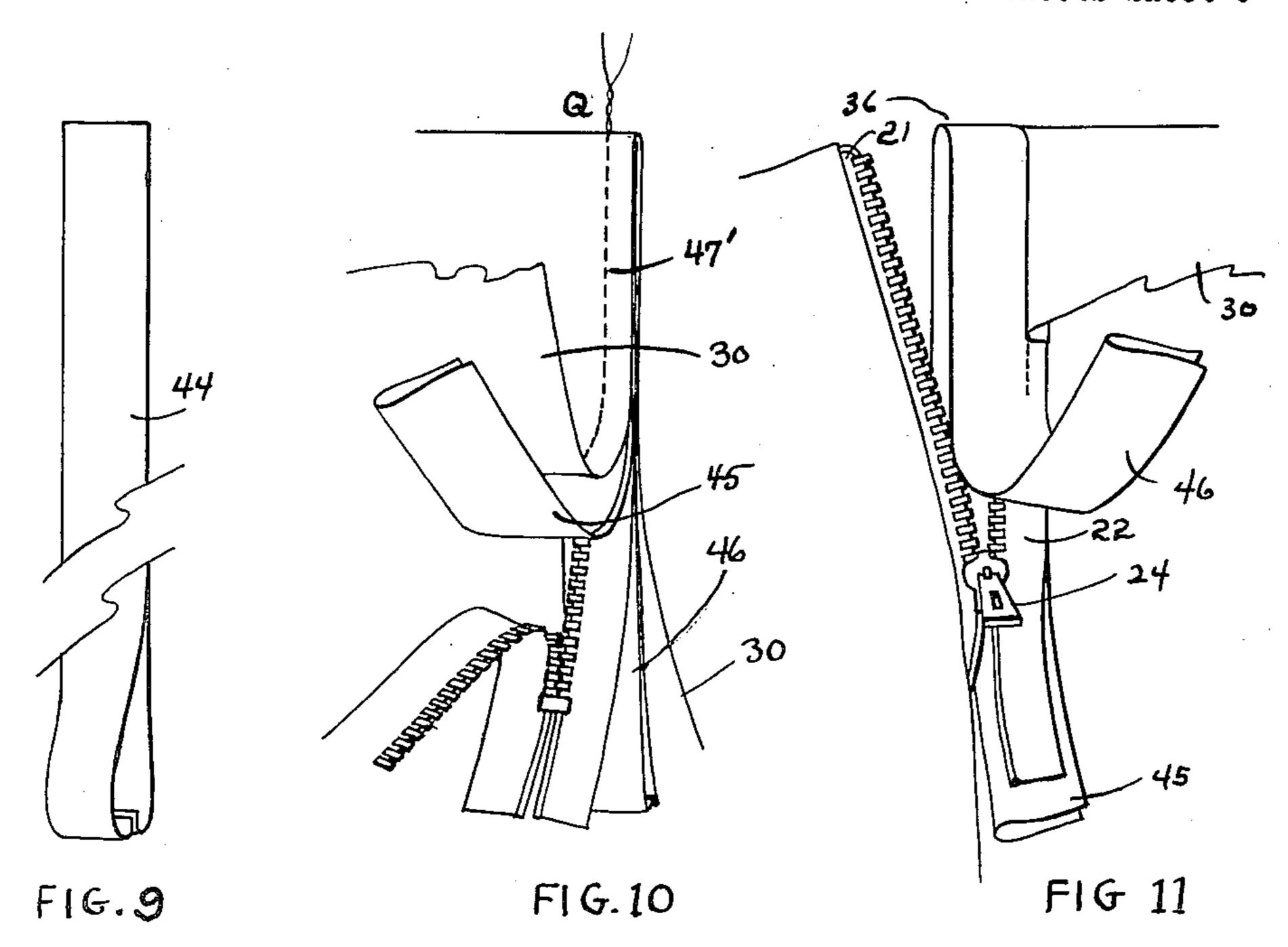
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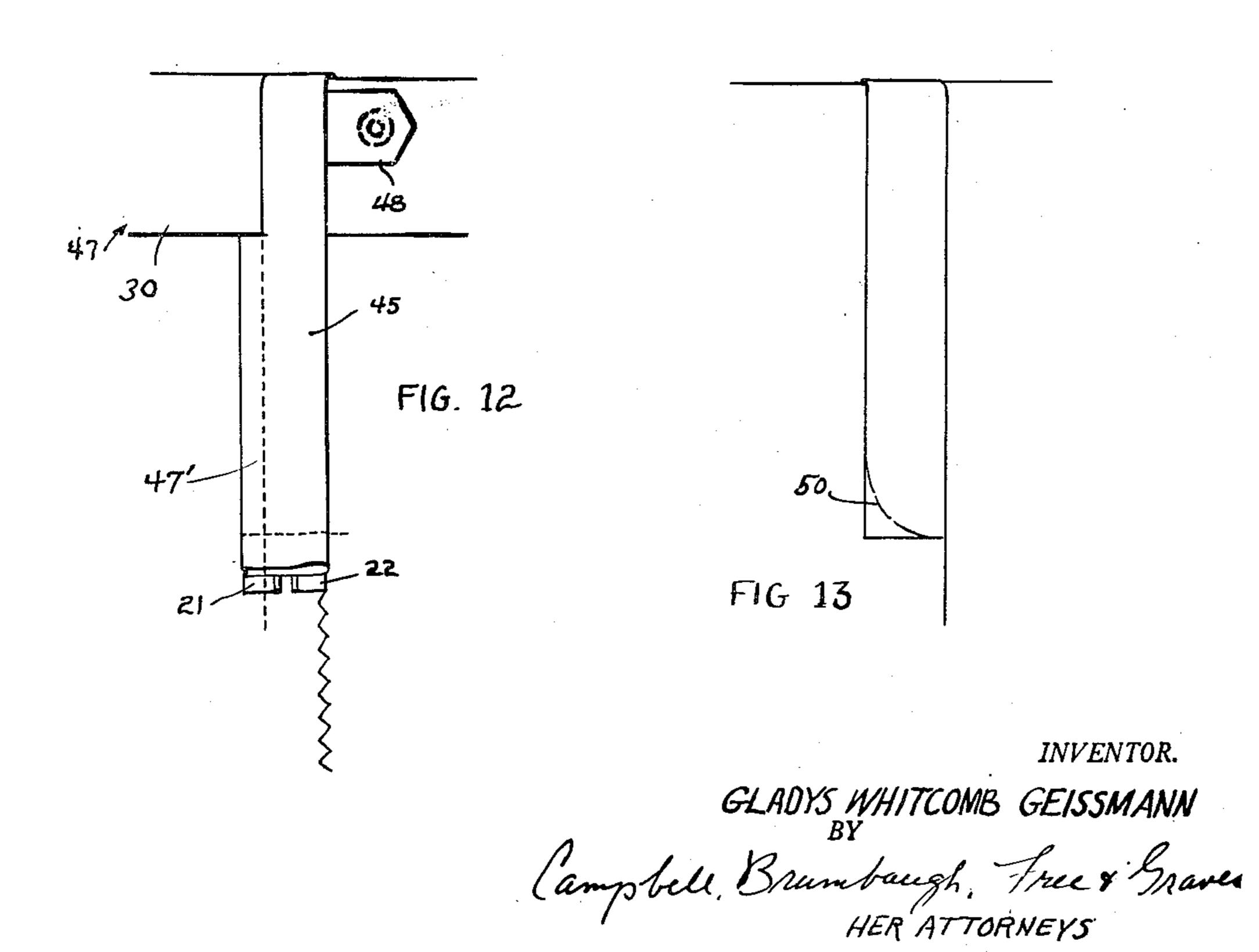


SLIDE FASTENER CLOSURE FOR APPAREL

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UNITED STATES PATENT OFFICE

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SLIDE FASTENER CLOSURE FOR APPAREL Gladys Whitcomb Geissmann, New York, N. Y. Application August 13, 1949, Serial No. 110,175

9 Claims. (Cl. 2—213)

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This invention relates to slide fastener closures for openings in garments and the like and more particularly to concealed slide-fastener closures in which the upper termini of the edges defining the opening are not otherwise joined.

Slide fastener closures, as conventionally provided in shorts, skirts, bathing suits, trousers and the like, ordinarily require supplemental fastening means at the upper terminus of the closure to ensure that the upper free corner of the flange overlying the slide key in its closed position does not become folded back to expose the key. The use of supplemental fastening means to maintain the covering flange in position over the key does not, furthermore, eliminate the presence on the outer surface of the garment of the objectionable "free" corner of the flange which covers the slide fastener.

Accordingly, it is an object of the invention to provide a novel, concealed closure of the type described which obviates the necessity for supplemental fastening means at the upper terminus of the closure and which in addition eliminates the free corner or "flap" effect present in conventionally used slide fastener closures of the 25 type described.

It is another object of the invention to provide means for concealing the slide fastener in openend type closures which is neat and orderly in appearance, but which is nevertheless inexpen- 30 sive to manufacture.

It is a further object of the invention to provide a slide fastener closure which greatly simplifies and expedites the manufacture of any garment in which the closure might be used.

The invention involves redisposing, with respect to the edges defining the opening the conventional fabric flanges which embrace closed slide fasteners, and provides in addition a hooded compartment for accommodating the slide 40 key in its closed position. The closure does not, it should be noted, prevent use of supplemental fastening or securing means if such be required, to relieve mechanical stress on the slide fastener per se, but does dispose of the requirement for 45 supplemental fastener means for preventing unwanted exposure of the slide fastener and slide key.

The invention may be more readily understood from the following detailed description referring 50 to the accompanying drawings in which:

Figs. 1-4 show various stages in manufacture of one embodiment of the invention in which:

Fig. 1 is a perspective view showing a method $\,$ Three methods for securing one tape of the slide fastener to the 55 are described herein.

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left edge of the opening in the garment (left edge here referring to the left edge of the completed closure as seen from the front). The fabric components as shown are turned inside out;

Fig. 2 is a perspective view showing the first step of a method for securing the second tape of the slide fastener shown in Fig. 1 to the right side of the opening in the garment, the fabric components being turned inside out;

Fig. 3 shows the second step of the method begun in Fig. 2 in which the fabric has been folded back upon itself along the fold line indicated by the dot-dash line x-y in Fig. 2;

Fig. 4 is a front perspective view showing the completed closure.

Figs. 5-8 show a second method for making the novel closure in which:

Fig. 5 is a perspective view showing the first step of a method for securing a slide fastener tape to the right edge of the opening in the garment;

Figs. 6 and 7 show the completed closure, opened and closed respectively;

Fig. 8 shows the closure as it appears from the outside of the garment;

Figs. 9-13 show a third method for forming the novel closure in which:

Fig. 9 is a perspective view of a welt used in construction of the closure by the third method;

Fig. 10 is a perspective view showing the method of sewing both the welt (shown in Fig. 9) and one tape of the slide fastener to the right edge of the opening in the garment;

Fig. 11 is a perspective view showing the completed installation seen from the front with a portion of the garment surface broken away to show the seam, and with the lower portion of the seam pulled apart to show the slide fastener tape and welt on the inside of the garment;

Fig. 12 is a view of the completed closure as seen from the inside of the garment and shows the addition of an optional security tab;

Fig. 13 is a view of the closure as it appears from the outside of the garment.

In each of the closures described herein, there is provided a conventional slide fastener 20 comprising a "left" tape 21 and a "right" tape 22, each tape carrying a multiplicity of interlocking teeth 23 controlled by a slide key 24 in the usual manner. The terms "left" and "right" as used throughout the disclosure refer to the left and right sides of the closure as viewed from the outside.

Three methods for making the novel closure are described herein.

First method

(Figs. 1-4)

Referring to Fig. 1, the left tape 21 of the slide fastener is secured to the left edge of the s opening in the garment. This may be accomplished in the usual manner by placing a left facing 25, if used, against the left surface fabric 26 of the garment, both the facing and surface fabric of the garment being turned wrong-side- 10 out. The left tape 21 is then inserted between the facing and the surface fabric with the teeth 23 disposed inwardly. A seam 27 is then run from the point C across the top of the garment seam being extended to cross the top of the tape 21 at which point a right angle turn is made and a seam 28 run downwardly adjacent the edges of the fabric to secure the tape 21 thereto. It should be noted that the upper end of the right 20 tape 22 is held so as not to be caught in the seam 27. The work may then be turned right side out yielding the finished edges and secured left tape 21 of the left side of the closure as shown in Fig. 4.

The right tape 22 of the slide fastener is then free to be incorporated in the right side of the closure. This is accomplished by superimposing the right facing 29 and the right surface fabric 30 of the garment, inside out and with edges 30 even, as shown in Fig. 2. The right tape 22 is disposed between the facing and surface fabric with the teeth 23 disposed inwardly as shown, and a vertical seam 3! run from the point J downwardly to the point F, to join the surface 35 fabric 30, the tape 22 and the facing 29.

The lamination of the facing, tape and surface fabric is then folded back upon itself along the dot-dash line X-Y of Fig. 2, as shown in Fig. 3. A seam 32 is then run along the top of 40 the garment between the points G and H. The work is then turned right side out and a top stitching seam 33 run between the points J' and K, resulting in a completed closure as shown in Fig. 4 in which the right tape 22 of the slide fastener is disposed between fabric flanges 34 and 35 which were formed as a result of the folding and stitching operations aforedescribed. As a consequence of the seam 32, the flanges 34 and 35 form a pocket or a "hooded" portion 36 inseamed along its top edge 37. When the slide fastener is closed the flanges 34 and 35 will embrace and conceal the entire slide fastener, with the key 24 being disposed within the pocket 36. The result is an extremely neat closure which is complete in the absence of any supplemental securing means whatsoever, it being noted that by virtue of the pocket 35 for concealing the key there are no free corners which might be inadvertently turned back to expose the slide fastener.

Second method

(Figs. 5-8)

If desired a slide fastener closure may be pro- 65 vided which includes the features of the closure described in the first method, and which in addition provides an extended inner flange 38 cooperating with the usual outer flange 39 (Fig. 6). This modification of the invention provides 70 for the use, if required, of a supplemental fastener, such as a snap 40, to relieve possible extraordinary mechanical stress on the slide fastener per se. It should be noted however, that the supplemental fastener does not operate 75

to prevent unsightly exposure of the slide fastener and key, this being accomplished by the aforedescribed flange pocket 36, which by virtue of the fact that it has no free corners which might be turned back, does not require supplemental securing means.

The left tape 21 of the slide fastener is secured in the usual manner to the left side of the closure as shown in Fig. 1. The right tape 22 of the slide fastener is first secured to the right side of the closure as shown in Fig. 2, with the edge of the tape 22 and the edges of the facing and fabric surface being aligned and the vertical seam 31 run in the usual manner. The fabric to secure the facing to the surface fabric, the 15 is then folded over as shown in Fig. 5 with a deep fold 41 being formed in the facing 25 and a shallow fold 42 being formed in the surface fabric 30, the latter fold being disposed within the fold 41. A horizontal seam 43 is then run between the points K' and L. The work is then turned right side out and a top stitching seam 33 run between the points J' and K as aforedescribed, to secure the flange widths. The result is the elongated inner flange 38 with the normal outer 25 flange 39 having the hooded portion 36 inseamed at its upper terminus, as in the preceding method.

If desired, supplemental fastening such as the snap 40 for example, may be secured on the facing of the left side of the closure and the front surface of the extended flange.

As shown in Figs. 7 and 8, the closed slide fastener 20 and snap 40 are completely concealed from the outside.

Third method

(Figs. 9-13)

The left tape 21 of the slide fastener may be secured to the left side of the opening in the usual manner, as described in Example 1.

A welt 44 (Fig. 9) is prepared by doubling a strip of fabric along its longitudinal axis and inseaming the ends, if desired, by stitching transversely across the ends, with the welt turned inside out. The double-walled welt is then folded on a transverse axis at the point Q as shown in Fig. 10 to provide inner and outer flange portions 45 and 46 respectively, embracing the tape 22 of the slide fastener, the transverse fold of the welt being disposed at the upper end of the closure to overlie the finished edge of the garment. The surface fabric 30, inside out, may be folded to overlie the folded welt 44 as shown in Fig. 12 to provide an inner lining 47. If a separate facing is preferred, it is stitched or inseamed to the facing along the finished edge in the usual manner. The facing is optional in this method, since the under flange is formed by means of the double welt, not a facing.

A vertical seam 47' is then run downwardly from, or upwardly to, the point Q to catch the folded welt, the overlying surface fabric, the facing (if any) and the tape 22. The work is then turned right side out, revealing a pair of flanges embracing the right tape 22 of the slide fastener in the usual manner with the pocket 36 being disposed at the upper end thereof. In this case, there is no inseam along the upper terminus, but rather a fold-edge forming the concealing pocket for the slide key.

If desired, a security tab 48, far carrying supplemental fastening means, may be added to the inner flange as shown in Fig. 12.

If desired, the folded welt portion 45 forming the inner flange need not extend to the base or lower terminus of the slide fastener, but may

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terminate at a point between the ends thereof. It should be noted that top stitching is not required to complete the closure formed according to this example, although if desired, the lower edge of the welt on the front surface of the 5 garment may be finished off in any curve or shape desired, as shown on the dotted line 50 in Fig. 13, for example.

It will be apparent that the novel slide fastener closure provided according to this invention is 10 adaptable for use on a great variety of garments, such as shorts, trousers, jackets, bathing suits, skirts, foundation garments and the like, in which the opening in which the closure is formed extends into at least one finished edge of the gar- 15 ment.

While specific embodiments have been described the invention is not intended to be limited thereto, but is susceptible of numerous changes in form and detail within the scope of the following claims.

I claim:

1. In a slide fastener closure for an opening in a garment wherein the opening intercepts at least one finished-edge of the garment, a slide 25 fastener including a pair of tapes having interlocking means and a slide key for operating the fastener, a pair of opposing edges defining the opening and intercepting the finished-edge of the garment, means securing one tape of the slide 30 fastener to one of said edges, and means securing the other tape to the other edge, flange means edgewise secured to one of said edges to overlie laterally of the exposed front surfaces of both tapes of the slide fastener in its closed position, 35 said flange means extending lengthwise along the line of closure, passing about the finished-edge of the garment and extending at least partially along the inner surface of the slide fastener to overlie the back surface of the slide fastener to 40 form a permanent pocket at the finished-edge of the garment for concealing the slide key when the slide fastener is closed.

2. In a slide fastener closure for an opening in a garment wherein the opening intercepts at 45 least one finished-edge of the garment, a slide fastener including a pair of tapes having interlocking means and a slide key for operating the interlocking means, first and second opposing edges defining the opening and intercepting the 50 finished-edge of the garment, means securing one of said tapes to the first of said opposing edges, means securing the other of said tapes to the second edge, first flange means joined to the first edge to laterally overlie both tapes of 55 the slide fastener when the latter is closed, second flange means joined to the first edge to laterally overlie at least a portion of the inside surface of the slide fastener, said second fiange being of a width sufficient to cover the exposed 60 portions of both tapes of the slide fastener when the latter is closed, said first and second flange means being endwise joined permanently to form a pocket adjacent the finished-edge of the garment for concealing said slide key when the slide 65 fastener is closed.

3. In a slide fastener closure for an opening in apparel wherein the opening comprises a pair of opposing edges intercepting at least one finished-edge of the apparel, a slide fastener including a pair of tapes having mutually interlocking means and a slide key for controlling the interlocking means, means securing one of said tapes to one of said edges defining the opening, means securing the other of said tapes to the 75

other edge of the opening whereby closing of the slide fastener closes the opening to said finished-edge, first flange means carried by one of said edges and extending laterally outwardly therefrom to overlie the exposed front face of both tapes of the closed slide fastener, said first flange means extending lengthwise to the finished-edge portion of the apparel, second flange means carried by said one edge and extending laterally outwardly therefrom to overlie the back, exposed surfaces of both tapes when the slide fastener is closed and means securing the said flanges together permanently along the finished-edge to form a pocket for concealing the said slide key when the slide fastener is closed.

4. In a closure for an opening in apparel wherein the opening comprises a pair of opposing edges intercepting at least one finished-edge of the apparel, a slide fastener including a pair of tapes having mutually interlocking means and a slide key for controlling the interlocking means, means

securing one of said tapes to one of said edges defining the opening, means securing the other of said tapes to the other of said edges, whereby closing of the slide fastener closes the opening to the said finished-edge, first flange means carried by one of said edges and extending laterally outwardly therefrom to overlie the exposed front face of both of said tapes when the slide fastener is closed, said first flange means extending lengthwise to the finished-edge of the apparel, second flange means carried by said one edge and extending laterally outwardly therefrom to overlie the exposed back face of both of said tapes when the slide fastener is closed, said second flange means extending to the finished-edge of the apparel, means securing said flanges together along the finished-edge to form a pocket for concealing the slide key when the slide fastener is closed, a tab secured to the underside of the edge to which the flange means is secured, said tab

being adapted to extend across the iner surface

5. In a slide fastener closure for an opening in apparel wherein the opening comprises a pair of opposing edges intercepting at least one finished-edge of the apparel, a slide fastener including a pair of tapes having mutually interlocking means and a slide key for operating the interlocking means, means securing one of said tapes to one of said edges, means securing the other of said tapes to the other edge wherein closing of the slide fastener closes the opening, first flange means joined to one of said edges and extending laterally outwardly therefrom to overlie the front face of the slide fastener and extending lengthwise to the finished-edge of the apparel, second flange means secured to the same edge as said first flange and extending laterally outwardly therefrom for a distance exceeding that of said first flange to overlie the inner face of said slide fastener and the margin of said opposing edge, said second flange extending lengthwise to the finished-edge of the apparel, and means securing the first and second flanges along the line of the finished-edge to form a hooded pocket for concealing the slide key when

6. In a slide fastener closure as set forth in claim 5 including cooperative fastening means on the second flange and the margin of the said

the slide fastener is closed.

of the closed slide fastener to overlie the margin of the opposing edge, and cooperative fastening means on said tab and the margin for securing the tab thereto.

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opposing edge for detachably securing the flange thereto.

7. In a slide fastener closure for a slit running inward from an edge, a pair of slide fastener tapes having mutually interlocking means and 5 a slide key for operating the slide fastener, means securing one tape to one edge of the slit and the other tape to the opposing edge of the slit whereby closing the slide fastener closes the slit to a point at the said edge, a flexible flange 10 secured to one edge of the slit to overlie at least a portion of the length of one face of the closed slide fastener, said flange being of sufficient width to overlie the exposed surfaces of both tapes of the closed slide fastener, said flange 15 tener is concealed by said flanges. extending lengthwise to the edge-terminus of the slit, a second flange secured to said one edge of the slit to overlie at least a portion of the other face of the closed slide fastener, said second flange being of sufficient width to cover the 20 cealing flanges of dissimilar width. exposed surfaces of both tapes of the closed slide fastener and means for securing said flange permanently together transversely of the line of closure and proximate to the edge-terminus and independently of the opposing edge of the slit 25 to form a pocket for concealing said slide key when the slide fastener is closed.

8. The method of forming a closure for a slit running inward from a finished-edge and utilizing two layers of material and a slide fastener 30 comprised of a pair of tapes carrying interlocking means, said method comprising the steps of superimposing, inside out and edgewise aligned, the layers of material forming one edge of the

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slit, disposing one tape of the slide fastener between the layers adjacent the aligned edges, seaming along the edges to catch the tape of the slide fastener and both layers of material, folding the seamed work back upon itself inside the seam line, seaming the folded work parallel to and adjacent the finished-edge to set the fold. turning the work inside out yielding a pair of flanges laterally embracing said slide fastener and joined at the finished-edge to provide a pocket as formed by said folding and seaming operations, and securing the other tape of the slide fastener to the opposing edge of the slit, thereby to form a closure wherein the slide fas-

9. The method of forming a slide fastener closure as set forth in claim 8 wherein in the folding operation, the fold in one of the layers is formed deeper than the other to provide con-

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