Sept. 20, 1971 F. C. DONALD 3,605,665

INSTALLATION OF SLIDE FASTENERS

Filed Sept. 29, 1969 2 Sheets-Sheet 1

FIG-3

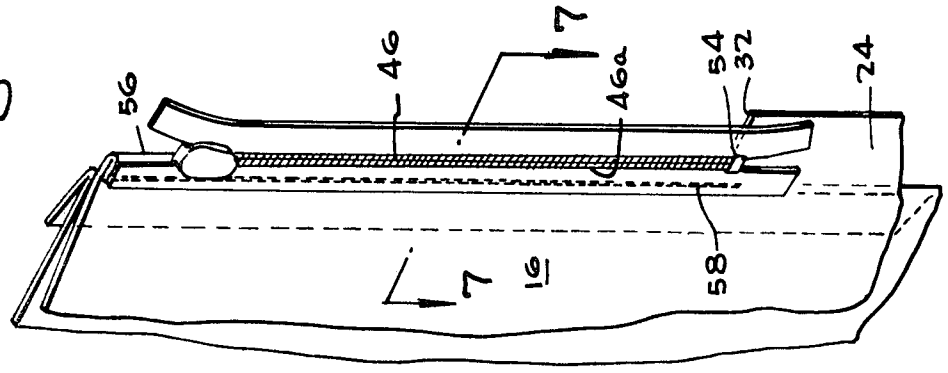


FIG-2

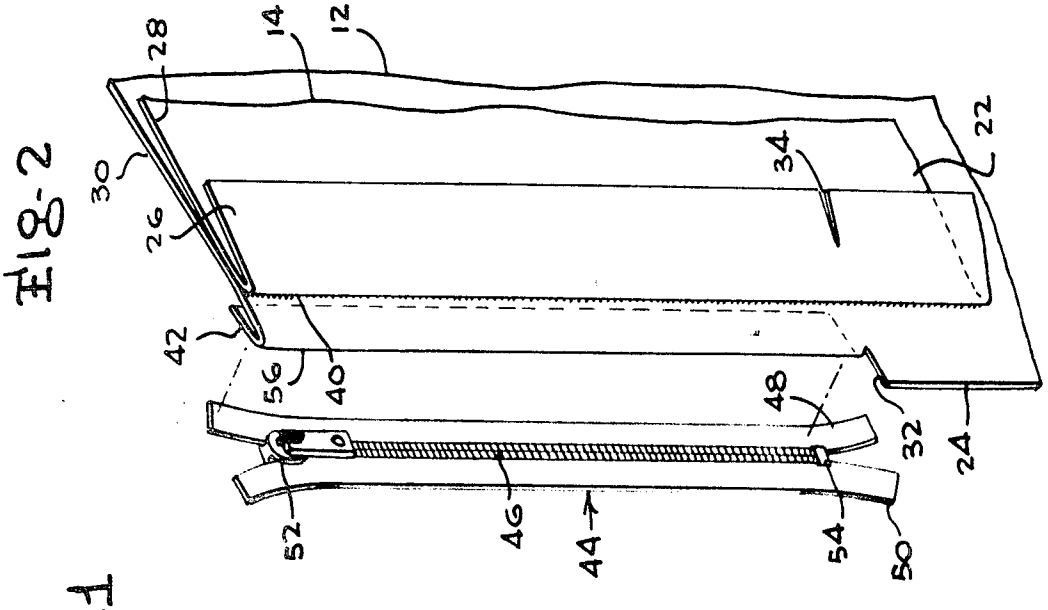
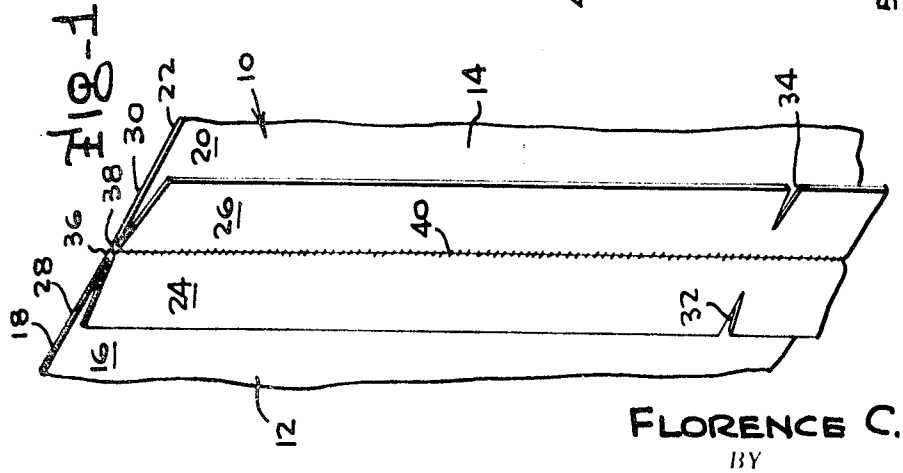


FIG-1



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Filed Sept. 29, 1969 2 Sheets-Sheet 2

Fig-4

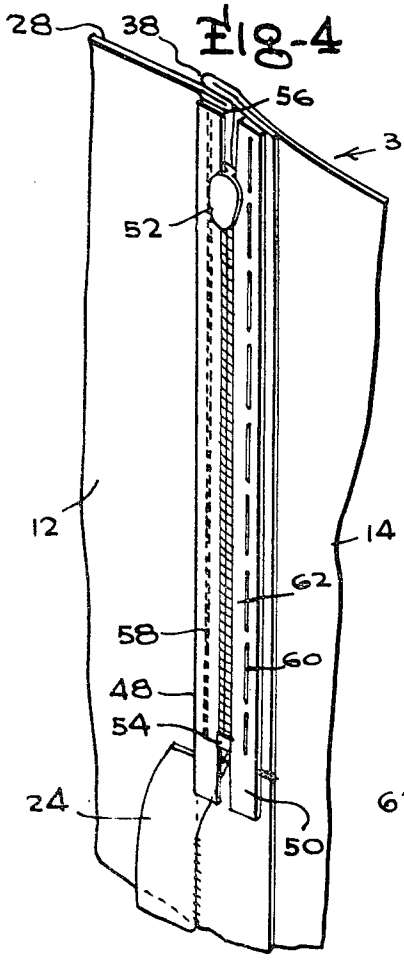


Fig-5

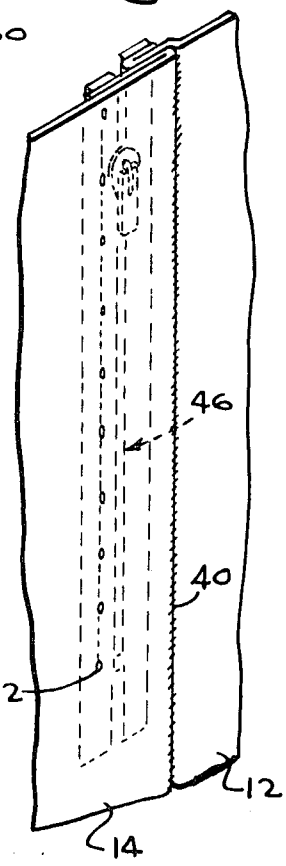
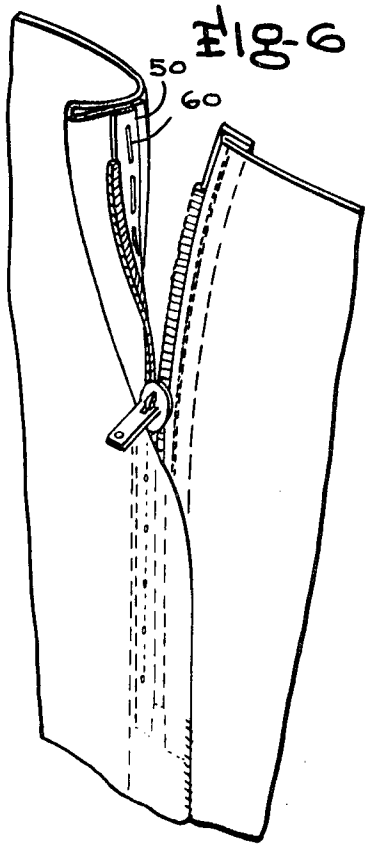


Fig-6



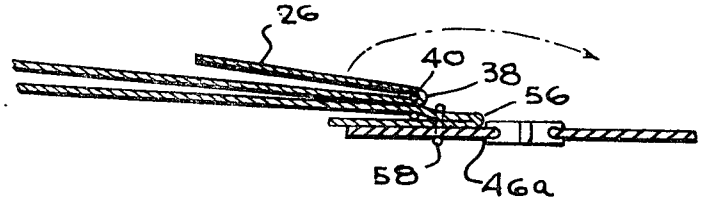


Fig-7

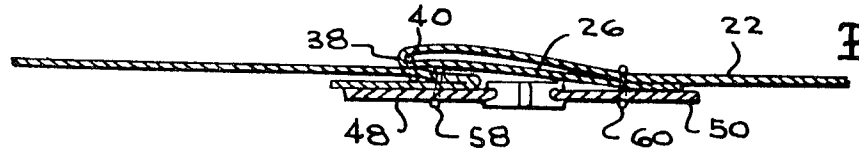


Fig-8

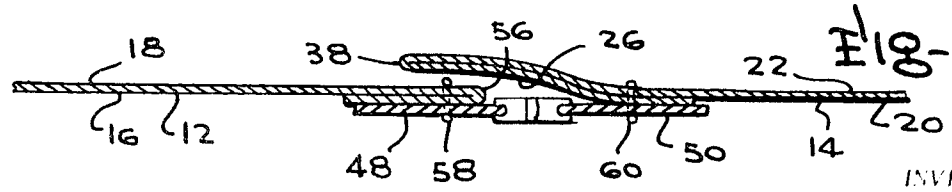


Fig-9

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United States Patent Office 3,605,665
Patented Sept. 20, 1971

3,605,665

INSTALLATION OF SLIDE FASTENERS

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Filed Sept. 29, 1969, Ser. No. 861,919
Int. Cl. D05b 97/10
U.S. Cl. 112—265 3 Claims

ABSTRACT OF THE DISCLOSURE

A slide fastener is installed by a process wherein meeting fabric panels are temporarily basted to one another and the seam allowances slit to mark the fastener location. Thereafter the seam allowances are doubled at such locations, and the fastener tapes are affixed to the doubled seam allowances. The temporary basting is then removed.

BACKGROUND OF THE INVENTION

(1) Field of the invention

This invention relates to the installation of slide fasteners in fabric constructions, such as garments, and the like. More particularly, the invention concerns an improved method of installation in which the fastener is rapidly and positively located and wherein the installation is not observable in the normal closed position thereof.

(2) Statement of the prior art

Various procedures have heretofore been proposed for the concealed installation of slide fasteners. Among these prior proposals, and representative thereof, are the methods described in the following United States patents:

2,972,751, Leonard et al.	2/28/1961
3,003,445, Crystal	10/10/1961
3,006,302, McNamara	10/31/1961
3,348,509, Degraw	10/24/1967

These prior proposals have been subject to criticism, both from the standpoint of practicality, and due to the difficulties encountered in the training of beginning students to be trained in the use of both conventional techniques and these prior proposals.

SUMMARY OF THE INVENTION

The present invention comprehends a new and novel technique for the installation of concealed slide fasteners which is readily accepted by students and which produces a professional installation with a minimum of training and experience. Moreover, even in the case of experienced persons, the present procedure provides a finished installation of superior and uniform quality.

Adoption of the present procedure substantially reduces the time required to install slide fasteners in garments, upholstery covers, and the like, and reduces machine sewing operations to a minimum in such installations. The invention hereof is employable even with obsolete and inexpensive sewing equipment lacking in special attachments for the installation of zippers.

A further objective of the invention resides in the provision of an installation procedure wherein the use of pins and the like is avoided.

Other and further objects and advantages will become apparent to those skilled in the art from a consideration of the following specification when read in conjunction with the annexed drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a first perspective view showing fabric panel sections as they appear at the conclusion of preliminary steps in an installation procedure within the scope of this invention;

FIG. 2 is a disassembled view showing the components at a further stage in the sequence of operations of the invention;

FIG. 3 is another perspective view illustrating a further intermediate procedure;

FIG. 4 is a view of the installation of a fastener in accordance with this method at a still further stage in the procedures;

FIG. 5 is a view of the installation at the status of FIG. 4, viewed from the front;

FIG. 6 shows the completed installation with the slide fastener partially open;

FIG. 7 is a detailed cross sectional view taken substantially on the section line 7—7 of FIG. 3, looking in the direction of the arrows;

FIG. 8 is a view similar to FIG. 7 showing a next step in the procedure in sectional detail; and

FIG. 9 is a cross sectional view from the attitude of FIGS. 7 and 8 illustrating a completed installation.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings in more detail, the illustrated environment chosen for illustration of the installation herein relates to fabric elements, such as a garment under construction, in which a slide fastener is to be installed. In the form shown, the slide fastener is to extend fully to an edge of the garment, as for example at the neckline of a dress or the like. At such location, the fabric **10** from which the garment is constructed has two side-by-side panel portions including for purposes of description, a first panel portion **12** and a second panel portion **14**. The portion **12** has an inner surface **16** and a outer surface **18**, and the portion **14** likewise has an inner surface **20** and outer surface **22**.

In FIG. 1, the method of this invention has been instituted to the completion of initial steps comprising the reversion of the meeting edges of the panels **12** and **14** to form seam allowances **24** and **26**, respectively thereon. The location of the slide fastener to be installed is then determined. This is best accomplished by placement of the fastener against the previously formed seam allowances. In the installation chosen for illustration, the upper limit of the fastener is of course determined by the edges **28** and **30** of the panel portions (in fastener installations at intermediate locations both upper and lower marking is required in the manner described as follows). The lower extent of the fastener opening is demarcated by the formation of slits **32**, **34**, as by cutting with scissors, to a depth of substantially one-half the extent of the seam allowances. The seam allowances are temporarily secured to one another along lines **36**, **38**. This temporary connection is preferably effected by the incorporation of a line of bast stitching **40**. Thereafter, each of the seam allowances is pressed into place as by ironing. This places the components in the condition illustrated in FIG. 1.

In FIG. 2, the panels **14** and **16** have been folded about the line of stitching **40** so that the outer surfaces **18** and **22** face one another, this comprising a further step in the within described method. The seam allowance **24** is temporarily flattened outwardly, and is doubled folded to form the double fold section **42**, in the direction of the panel surface **16** from the slit **32** to the edge **28** (or the second slit in those instances where required).

The slide fastener per se is generally identified in the drawing by reference numeral **44**. The closure assembly comprises a tooth section **46** wherein the teeth are formed of metal, plastic, or the like, and laterally disposed, longitudinally extending flaps or tapes **48**, **50**, formed of a

heavy fabric. The fastener per se is conventional in construction and operation, and includes a slide member **52** actuable to connect or disconnect the teeth responsive to sliding movement from the base catch **54** to the upper limit shown in the drawing.

The fastener **44** is next placed against the doubled seam allowance **42**, with the base catch **54** positioned at the slit **32**. The orientation of the slide fastener to the panels is shown in FIG. 3, and the corresponding sectional view, FIG. 7. It will therein be observed that the inward edge **46***a* of the line of teeth **46** is aligned with the edge **56** of the doubled seam allowance **42**. In such position, the tape **48** is permanently affixed to the seam allowance fold by a line of machine stitching **58**. The stitches of the line **58**, by virtue of the folded back condition of the second panel portion **14** extend through the two folds of the seam allowance **42** and through the tape **48**.

Proceeding in the sequence, the second panel **14** is then reverted to its original position, placing the components in the relative positions shown in FIG. 4. Then, sewing from the front side surface **22** of the panel **14**, the tape **50** is hand sewn by a hand pick stitch in a line **60**. This type of stitching, which is known in the sewing art, produces only a slight exposure of thread, as at **62** in FIG. 5 on the outer or observable side of the garment, while securely connecting the tape by elongated stitches internally, identified at **64** in FIG. 4.

As an alternative, when additional strength is required, the hand pick stitching may be omitted in favor of a machine stitching. This is applied from the back side of the construction, along marking indicia customarily provided on the tape **50**. The hand stitch method is preferable from the standpoint of appearance, but machine stitching may be used where sport clothing and the like calls for additional strength.

The foregoing places the components in a disposition shown in FIG. 8. Thereafter, as the terminal step in the method, the basting stitches **38** are removed, resulting in the completed installation of FIG. 9.

The scope of the invention is defined in the appended claims.

I claim:

1. A method of attachment of a concealed slide fastener, the slide fastener including a slide member having a tab, a chain, lateral tape portions and a slide stop, to a fabric article under fabrication, wherein the article includes a pair of side-by-side fabric first and second panel portions having edge portions to be closed by the slide fastener, comprising the steps of:

placing said panel portions in superposed position with their edge portions aligned;

positioning the slide fastener in closed condition in an installation position on said aligned panel edge portions;

marking the position of the slide stop of the installed slide fastener, the marking comprising inward slits in said panel edge portions to selected depths;

providing a line forming seam allowance of equal dimension on each of the panel edge portions, exceeding said depths, and temporarily stitching the panel portions to one another along said line;

folding and pressing the seam allowances along said line whereby the panel portions have folded edges which abut one another;

positioning the fabric article with the seam allowances lowermost and folding the second panel portion and its seam allowance about the line of stitching against and over the first panel portion;

folding the seam allowance of the first panel portion under itself in the marked area;

placing a first tape portion of the slide fastener beneath said double folded seam allowance with the fold of said seam allowance abutting the slide fastener chain with said slide member tab facing up and said stop aligned with said slit and stitching said tape to said folded seam allowance centrally of said fold for the extent of the marked area;

unfolding the second panel portion and its seam allowance along said line of stitching to overlie said slide fastener;

stitching the other of the slide fastener tape portions to said second panel portion and its seam allowance; and

severing said temporary stitching.

2. The invention of claim **1**, wherein: the first of the tape portions is connected to the doubled seam allowance by machine stitching.

3. The invention of claim **1**, wherein:

the second of the tape portions is connected to the seam allowance of the second panel portion by a hand pick stitching including short stitch portions and long stitch portions; and

the long stitch portions are concealed.

References Cited

McCall's Tips for Easy Sewing, pp. 108–109, McCall Corp., Copyright 1968.

Vogue Dressmaking Book, p. 48, Condé Nast Publications, Copyright 1949.

RICHARD J. SCANLAN, JR., Primary Examiner