

Jan. 26, 1960

E. BERLIN

2,922,167

METHOD OF MAKING BUTTONHOLES

Filed Jan. 24, 1958

3 Sheets-Sheet 1

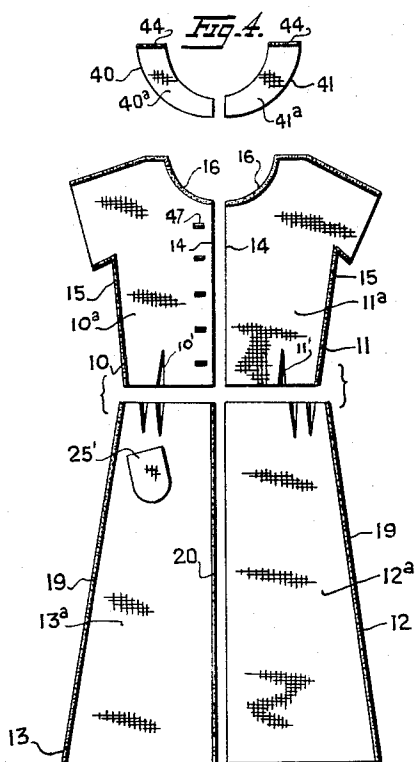


Fig. 1.

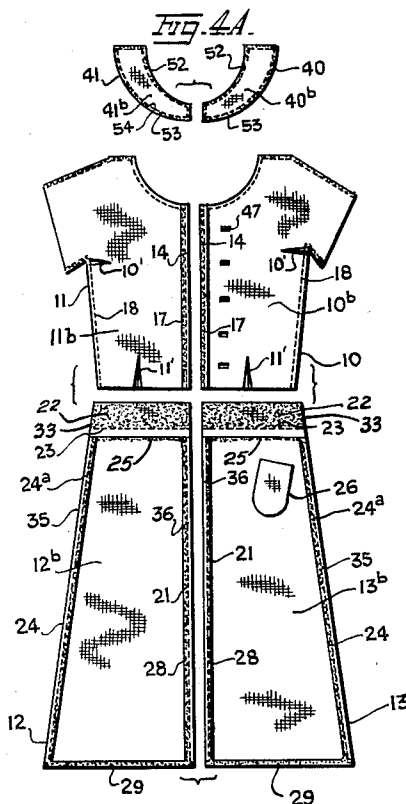


Fig. 1A.

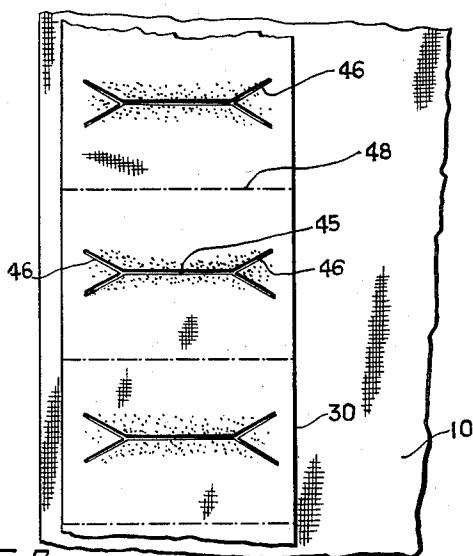


Fig. 6.

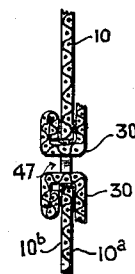


Fig. 9.

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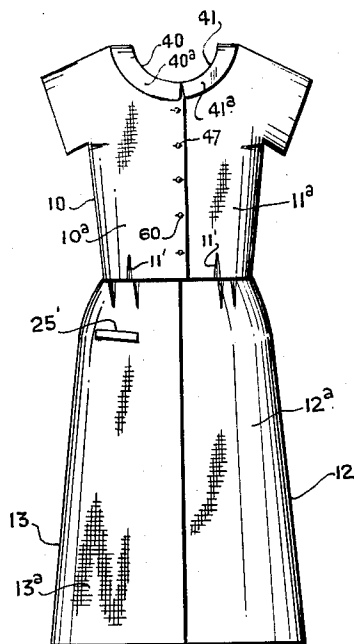


Fig. 5.

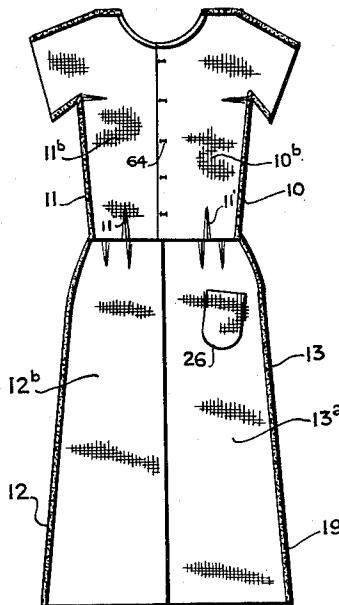


Fig. 5A.

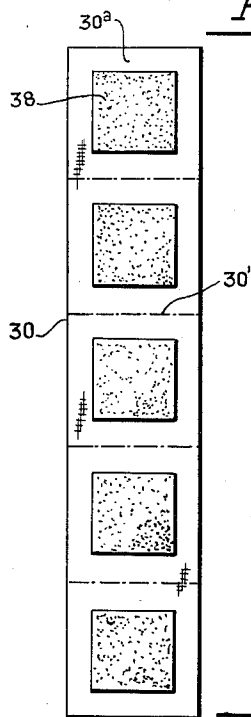


Fig. 3.

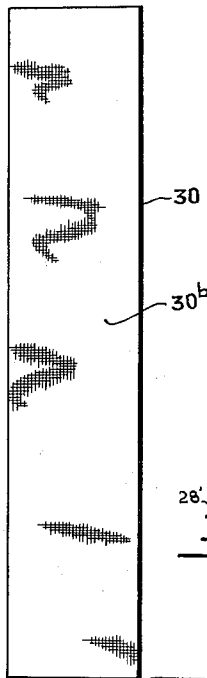


Fig. 3A.

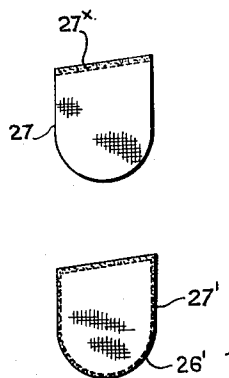


Fig. 2.

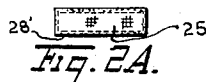


Fig. 2A.

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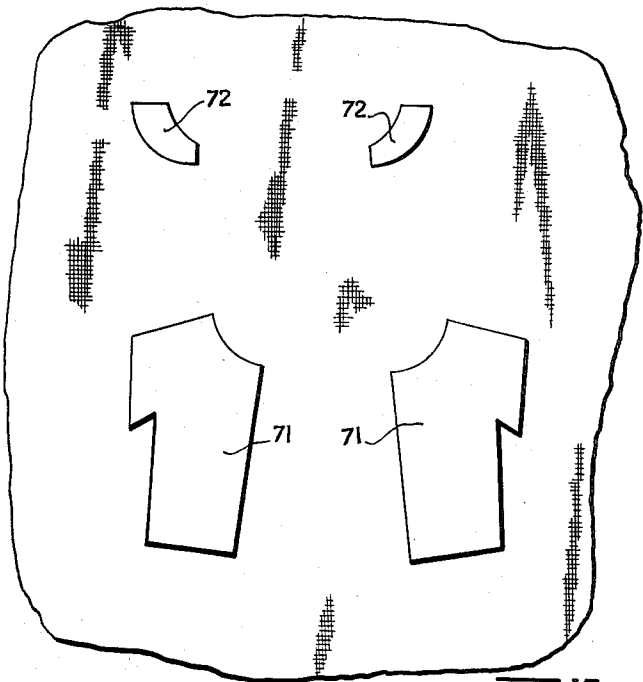


Fig. 10.

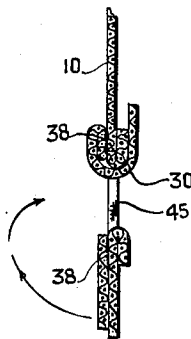


Fig. 8.

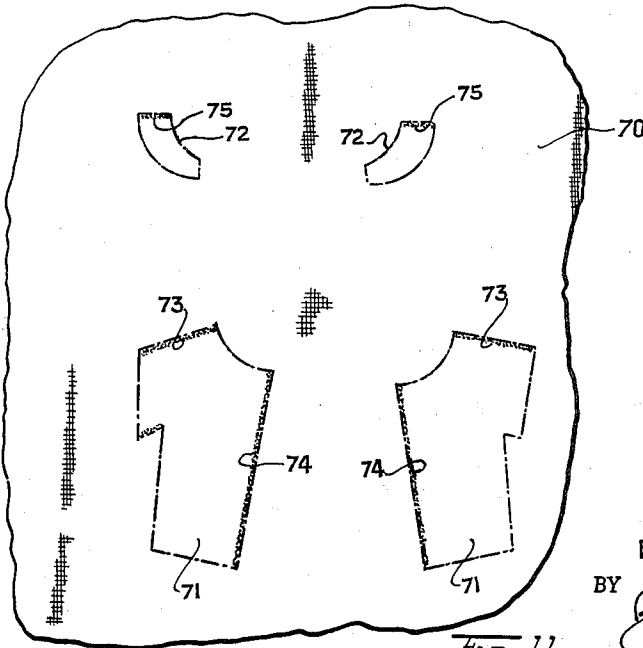


Fig. 11.

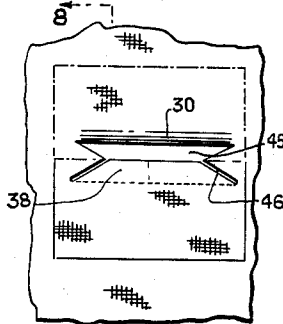


Fig. 7.

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METHOD OF MAKING BUTTONHOLES

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Application January 24, 1958, Serial No. 710,942

1 Claim. (Cl. 2—243)

This invention relates to the art of garment making and particularly concerns a method and means for assembling and fastening pieces of a garment without stitching or sewing.

According to the invention there is provided as an article of manufacture a precut and shaped garment piece having a suitable adhesive applied to certain predetermined portions thereof. A home dressmaker, as a result of this invention, is provided with a plurality of such garment pieces which she glues together in such manner as to fit the form of the wearer. No stitching is required and the use of paper patterns is avoided.

The garment pieces, according to one form of the invention, are precut and shaped by suitable dies or other mass production piece cutting means at the factory and the home dressmaker purchases all the precut pieces of a garment ready for assembling.

It is, therefore, one object of the invention to provide as an article of manufacture a precut and shaped garment piece having pre-selected areas coated with an adhesive.

A further object is to provide a method of assembling a garment in which no hemming or other sewing procedural steps are required, the method solely relying on the pasting or gluing of the several pieces of a garment together.

It is also proposed in accordance with a modification of the invention to provide a blank on which the components of a garment are outlined on one surface thereof for the purchaser to cut out said components, and said outlined components are provided on the front surface thereof with adhesive on the attaching margins for ready attachment and assembly by an unskilled person.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claim in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a front view of several pieces constituting the front of a garment made in accordance with the invention, preparatory to assembly.

Fig. 1A is a rear view of the parts shown in Fig. 1.

Fig. 2 is a top plan view of a pair of patches constituting an inner pocket before assembly.

Fig. 2A is a top plan view of a flap for the pocket before assembly.

Fig. 3 is a front view of a buttonhole strip.

Fig. 3A is a rear view thereof.

Fig. 4 is a front view of a pair of collar pieces.

Fig. 4A is a rear view thereof.

Fig. 5 is a front view of a portion of a garment assembled with the pieces of Figs. 1-4A.

Fig. 5A is a rear view of the assembled garment portion of Fig. 5.

Fig. 6 is a top plan fragmentary view showing one step in the formation of a buttonhole.

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Fig. 7 is an enlarged detail view showing another step.

Fig. 8 is a vertical sectional view taken on the plane of the line 8-8 of Fig. 7.

Fig. 9 is a vertical sectional view through a buttonhole on an enlarged scale.

Fig. 10 is a front view of a fragment of a blank from which components of a garment may be cut in accordance with a modification of the invention.

Fig. 11 is a rear view thereof.

Referring to Fig. 1, there is shown four fabric pieces 10, 11, 12 and 13 which when assembled constitute the front part of a dress, costume, uniform or the like as shown in Fig. 5, the pieces 10 and 11 being pre-shaped to receive the head and arms of the wearer. Darts 10' and 11' are formed in the pieces 10 and 11, respectively, at the sides and bottoms thereof. On the front surfaces 10^a and 11^a of bodice pieces 10 and 11 are stripes 15 of a suitable adhesive such as glue applied at the outer side edges of the pieces. Similar stripes 16 of glue are applied at the throat ends of the pieces. The bottom pieces 12 and 13 have outer striped glue edges 19 on the front surfaces 12^a and 13^a. The inner edge of piece 13 has an adhesive stripe 20 on its inner edge which is not required on the corresponding inner edge of piece 12. A wide band of glue 22 is provided at the top edge of each of the pieces 12 and 13 for adjustable attachment of top pieces 10 and 11 thereto.

The piece 10 is formed with a series of spaced buttonholes 47 adjacent its inner side edge 14. These buttonholes are formed by providing a fabric strip 30 as shown in Fig. 3 with a series of spaced spots 38 of adhesive on one surface 30^a thereof, the reverse surface 30^b thereof being free of adhesive. The strip 30 is pressed against the outer surface 10^a of the piece 10 along and adjacent its inner side edge 14. While the strip is thus positioned and held by the adhesive spots, the material of the strip and the material of the piece 10 are slit across each spot 38, as indicated at 45 and at the end of the slit 45 radial slits are cut as indicated at 46. The strip 30 is next cut transversely between adjacent spots 38 as indicated at 48. The area of the outer surface 30^b of strip 30 is then coated with an adhesive immediately adjacent the cuts 45 and 46 as shown in Fig. 6. The material of the strip 30 adjacent each spot 38 that is unattached to the piece 10 on each side of slit 45 and at the ends thereof is then tucked in through the slits 45 and 46 to the rear of the piece 10, the edge wall of the slit 45 bending rearwardly during this operation as shown in Figs. 7 and 8, the slits permitting this operation. The unattached material of strip 30 now positioned at the rear of the piece 10 may be pressed against the material of the piece. A smooth reinforced finished buttonhole 47 is thus provided in the piece 10 as shown in Fig. 1 with the adhesive concealed from view and holding the folded under portions of the cut strip 30.

Collar pieces or halves 40 and 41 are provided for attachment to stripes 16 on pieces 10 and 11 as will be explained. A stripe 44 of glue is provided at one end of each of surfaces 40^a and 41^a of the collar pieces.

In Figs. 1A through 4A, there is shown the reverse surfaces of certain of the pieces of Figs. 1-4. Piece 10 in Fig. 1A has dotted lines 18 marked along the edges of reverse surface 10^b. Surface 11^b of piece 11 is similarly marked. These lines indicate where the margins of the pieces are to be folded. Stripes 17 of glue are located on the inner margins 14 of surfaces 10^b and 11^b. Pieces 12 and 13 are marked with dotted lines 24^a on surfaces 12^b and 13^b to indicate the locations of folds to be made near the sides of the pieces. Horizontal stripes of glue 25 are located beneath and spaced from transverse fold lines 23 adjacent the tops of the pieces. Stripes of glue 24, 28 are provided adjacent the outer

side edges on both pieces 12 and 13. Stripes 29 of glue are provided along the bottom edges of surfaces 12^b and 13^b.

When the bottoms of pieces 12 and 13 are folded up to form hems of desired length, stripes 29 serve to secure the folded lower portions of the pieces. The stripes 25 serve to secure the flaps 33 at the top of pieces 12 and 13 when they are folded on the dotted lines 23. Stripes 24 secure margins 35 when they are folded on lines 24^a. Stripes 28 secure margins 36 when they are folded on lines 21.

An inner packet 26 is formed from a pair of substantially rectangular-shaped patches 27, 27' of fabric material. Patch 27' is provided with adhesive 26' along its margin outwardly of a fold line therealong. Patch 27' is folded along its margin and attached to the patch 27 by means of the adhesive. The patch 27 is attached to the inner surface 13^b of piece 13 by means of the adhesive 27^x thereon. A flap 25' is attached to the front surface 13^a of the piece 13 by means of adhesive provided along its marginal edge. The flap covers an opening in the piece 13 leading to the inner pocket 26.

In Fig. 4A the collar pieces 40 and 41 have their reverse surfaces 40^b and 41^b, respectively, marked with dotted lines 52 to indicate marginal fold lines. The margins 53 carry stripes 54 of glue for securing the folded margins.

In Figs. 5 and 5A the several pieces 10-13 are shown assembled to form the front portion of a garment. Collar pieces 40 and 41 are secured to the upper throat stripes 16 shown in Fig. 1 when these marginal striped portions are folded down in the back of the pieces. Pocket piece 27 is secured to the U-shaped stripe 26'. At the waist of the garment, the bottom ends of pieces 10 and 11 are secured to the stripes 22 at such positions as best suited to the wearer. If any adhesive is left exposed, this excess may be covered by a strip of fabric. Hems (not shown) may be provided along the bottoms of pieces 12 and 13 of the desired width by securing stripes 29 shown in Fig. 1A to the desired position on the reverse surfaces of pieces 12 and 13. Margins 19 with adhesive thereon are folded over and are ready for attachment to the corresponding back pieces (not shown) of the garment. Buttons 60 are secured by pins 64 to the inner margin 14 of piece 11. These buttons engage in buttonholes 47.

To assemble the pieces of the garment together, it is only necessary that the several stripes and areas coated with the dry adhesive be dampened with a solvent of the adhesive or pressed together with a hot sadiron to render them tacky. When sufficiently tacky the associated pieces will be manually pressed together until the joints are dry and secure. The buttonholes will be formed similarly by cutting the strip 30 and gluing the edges of the slit back at the rear of the garment piece to which the buttonhole strip 30 is attached.

Although only the front portion of a garment has been illustrated and described, the pieces of the rear portion of the garment would be similarly assembled. It will be noted that no stitching by hand or machine is required and no cutting and fitting of paper patterns is necessary. In a manner of one half hour or so an entire garment can be fabricated by the method described.

Instead of using water soluble glue such as gum arabic, it is possible to use a plastic adhesive such as cellulose nitrate or other suitable adhesive for the various stripes and areas on the several garment pieces. The

plastic adhesive stripes and areas will be moistened and rendered adhesive either by application of a suitable hydrocarbon solvent or by pressure and heat. Upon evaporation of the solvent from the tacky surfaces, the joint will become secure between the pieces so attached together. These joints will be water insoluble so that the garment can be laundered in water without the joints becoming unfastened. Garments made with water-soluble joints will be cleanable only with dry cleaning materials which do not dissolve the water-soluble joints.

In accordance with a modification of the invention as shown in Figs. 10 and 11, it is proposed to provide a blank or sheet 70 of suitable garment fabric having the various components of the garment outlined on one surface thereof. For example, in Fig. 10 the outlines 71, 71' of the front pieces of the bodice of a garment are illustrated as well as the outlines 72, 72' of a pair of collar pieces. It is merely necessary for the dressmaker to cut the desired components along the outline and a component of suitable shape is provided.

It is also contemplated to place adhesive along the marginal edges and other spots of the components on the opposite surface of the outline on the blank. For example, stripes 73 of adhesive are shown along the head opening of the front pieces and stripes 74 along the sides of said front pieces. Stripes 75 of adhesive are also shown along one end edge of the collar pieces. When a component is cut along the outline, a complete component ready for attaching to its complementary component of the garment is available.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claim.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

A method of making buttonholes in a garment, comprising the steps of attaching an elongated strip of fabrics having spaced rectangular spots of adhesive on one side thereof to one side of a piece of fabric material with the spots facing said material, cutting across said strip between the spots of adhesive to form separate rectangular elements adhering to said material, cutting registering slits through said elements, spots of adhesive and material, applying adhesive coatings to the outer sides of said elements at the slits therein, folding said elements through the slits therein to the other side of the material, and pressing down said folded elements to form buttonholes with finished edges, said adhesive coatings securing the folded and pressed portions of said elements at said edges.

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