HAND-ASSEMBLED FABRIC COVERED BUTTONS

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The present invention relates to a hand-assembled fabric covered button and a method for producing the same.

Certain style buttons are covered with a sheet fabric such as textile cloth which matches, blends or contrasts with the material of which a garment is made. A home dressmaker who buys a bolt of material and a pattern, and from them makes a garment, and who desires to use covered buttons therewith, makes her own covered buttons to match the dress material. To that end various kits are now offered for sale, those kits comprising interfitting button shell and button base members together with tools for securing those members together. The home dressmaker must take pieces of the covering material which she has selected, cut them to suitable disk shape, spread those pieces over the button shell so as to cover the latter, tuck into the shell interior the peripheral portion of covering material, taking care that the covering sheet is tautly and smoothly drawn over the entire surface of said button shell and the tucked-in portion held securely in place and then assemble the button shell and base members without disarranging the covering material in any way. These operations are difficult; for which the operator must acquire a knack or skill, acquired only through long experience. The delicate manipulative operations involved have heretofore given rise to considerable frustration on the part of the individual home dressmaker, as well as to considerable wastage of material and consumption of time.

A major difficulty in these operations of covering and assembling the button resides after drawing the fabric covering sheet tautly over the button shell, in tucking into the shell interior the peripheral portion of the fabric covering sheet and holding or retaining the same in tucked-in condition against the pull exerted by the taut shell covered portion and against the inherent or natural springiness of the peripheral fabric material which causes it to unfold itself from the tucked-in condition. Even when, as in some makes, the button shell is provided at its rim with anchoring teeth for embedment into the fabric, difficulty is experienced not only in anchoring the fabric but in holding or retaining the tucked-in peripheral portion prior to the securing of the button base as well as when the button base is secured to the assembly.

A prime object of my present invention centers about the provision of a hand-assembled fabric covered button and a method of covering and assembling the same which effectively solves this major difficulty. Its essential principle of the present invention resides in applying at least over the peripheral portion, and in a modification over the entire portion, of the fabric covering sheet a layer of a pliable and form-retaining material, the said material layer functioning to overcome the natural springiness of the tucked-in peripheral portion of the fabric covering and to impart thereto its form retaining property. Thereby the peripheral portion of the fabric covering material when folded and tucked into the interior of the button shell retains its folded and tucked-in condition and also holds the shell covered portion of the fabric material in the desired tucked-in condition. The assembly thus produced may be then handled without difficulty for the application thereto of the button base.

An ancillary object of the present invention resides in the provision of an assisting tool, of an exceedingly simple form and structure, designed to enable the covering material to be drawn uniformly and tautly over the button shell in the steps of applying the fabric covering sheet to the button shell.

To the accomplishment of the foregoing objects and such other objects as may hereinafter appear, my invention relates to the hand-assembled fabric covered button, the method thereof and the assisting tool used therewith which are sought to be defined in the appended claims taken together with the following specification and the accompanying drawings in which:

Fig. 1 is an exploded perspective view of the parts which are used to make the fabric covered button of the present invention;

Fig. 2 is a perspective view of a form of a pliable and form retaining material used in the practice of the invention;

Fig. 3 is a perspective view showing the manner in which the same is applied to the fabric covering material;

Fig. 4 is a perspective view showing the next step in producing the fabric covering with the said layer of the pliable and form retaining material applied thereto;

Fig. 5 is a view taken in cross-section showing the first step in the method of covering the button shell, utilizing the assisting tool of the invention;

Fig. 6 is a view similar to Fig. 5 showing a second step in the method of covering the shell;

Fig. 7 is a view taken in cross-section of the fully assembled button produced by the method;

Fig. 8 is a view similar to Fig. 7 and showing a modification;

Figs. 9 through 11 are views similar to Figs. 2 through 4 showing a modification of the applied layer of the pliable and form retaining material;

Fig. 12 is a cross-section view of an assembled button utilizing the modification shown in Figs. 9 to 11.

Referring now more in detail to the drawings and having reference first to Fig. 7 thereof, the hand-assembled fabric covered button of the present invention comprises a button shell S, a button base B, mating means m on said button shell and button base for securing the two in assembled relation, a fabric covering C for said button shell, the peripheral portion of which is tucked into the interior of said shell between the same and the button base, and a layer of a pliable and form-retaining material L, which in the form of the invention shown in Fig. 7 is applied over the peripheral tucked-in portion of the fabric covering C, the material of said applied layer L, being of a pliable and form retaining character, functioning to overcome the natural springiness of the tucked-in peripheral portion of the fabric covering and functioning to impart to the latter a form retaining property.

The shell and base parts of the button may be of any known design or structure in which the base and shell have interfitting or inter-locking means for securing the two together; such known structures include buttons in which the interfitting and securing parts may be located either at the center of the button or at its rim; in the form exemplified in Fig. 7, such securing means is located at the rim and comprises an arched flange f formed in the button shell with which cooperates an arched flange or rib r in the base, which with the material of the covering C between them, form interlocking and interlocking elements. The covering material C may be
3 any desired material such as cloth, felt, plastic or the like, which materials while flexible and foldable do not possess the property of retaining their shape when folded or flexed particularly when under stress. The material of the layer L is preferably a metal foil. Such a material although pliable or flexible retains the form or shape into which it is flexed or folded; and when applied or secured to the fabric material imparts to the latter its form retaining characteristic so that when the laminated assembly is folded and tucked in its shape will be retained even against stress or strain.

In the drawings I show parts which are used to make the assembled button just described, these parts comprising the button shell S, the button base B, a fabric material F from which the button covering is made, an element E which is supplied to the home dressmaker with a button kit and which embodies the layer L to be applied and a tool T which is used as an assisting member in the assembling method. The element E, as best shown in Fig. 2, comprises in the form there shown, an annulus 10 made of metal foil, such as tin or the foil, coated with a pressure sensitive adhesive 12 which is covered and protected by an annulus 14 of a backing material such as glassine paper and which therefore may be readily stripped from the foil. When so stripped the foil layer 12 is placed over and adhered to the fabric material F as illustrated in Fig. 3 of the drawings, and thereafter the fabric F is cut around the outer edge of the foil, the applied foil being used as a template and guide for the cutting of the fabric material to the proper disc size, the resulting member being that shown in Fig. 4 of the drawings comprising the fabric material which now is in the shape of the fabric covering C having adhered thereto what is now the layer L of the foil material.

The home dressmaker after performing these preliminary operations is now ready to cover the disc and assemble the button. This may be done by hand but is illustrated in connection with the assisting tool T in Figs. 5 and 6 of the drawings. In either case the button shell S is first covered with the fabric covering C as shown in Fig. 5, the covering being pulled smoothly and tautly over the body of the shell S after which the periphery p of the covering, comprising in this case the lamination of the covering material and the foil layer is folded or tucked as shown in Fig. 6 of the drawings. By dint of the functioning of the layer of pliable and adhering character described, the folded or tucked-in portion holds its shape as depicted in Fig. 6 and resists any tendency to spring out or be pulled out even under the tension of the taut portion of the covering. The assembly shown in Fig. 6 may then be handled without difficulty for the application and securing thereto of the button base B in the manner shown in Fig. 7 of the drawings.

The assisting tool T is employed to aid in the shell covering operation. This tool T comprises a ring or anulus as shown in Fig. 1 open at the bottom, the size and shape of the internal cavity 16 thereof corresponding to that of the exterior of the button shell S and preferably having a slight clearance all around the button base B which clearance is, however, somewhat less than the thickness of the covering material C. Thus the internal diameter of the cavity 16 is slightly greater than the external diameter of the shell S, and preferably equal to or less than the external diameter of the base B plus twice the thickness of the covering sheet C. The internal surface of the cavity 16 is frictional in nature. While the ring T may be made of rigid material, it is preferred to make it of soft, resiliently formed material such as rubber so that the internal surface of the cavity 16 will have the desired frictional characteristic and so that it may readily accommodate itself to the varying dimensions of the shell S and the thicknesses of the various cover sheets which might be employed therewith.

The ring T is provided at its upper end with an inwardly extending rim 18 defining a restricted entrant opening which generally conforms in shape to the shell S, but the internal diameter of which is somewhat less than the external diameter of the said shell S. The said rim 18 is made of some soft and readily resiliently deformable material such as rubber and in the preferred embodiment herein illustrated, it is integral with and formed of the same material as the ring T itself.

In use the ring T is placed upon a table or other supporting surfaces with its rim 18 uppermost, the cover sheet C is placed thereover as shown in Fig. 5 and the shell S is placed on top of the cover sheet and centered with respect to the rim opening. The button-assembly shown in Fig. 5 is then pushed down into the cavity 16 pulling the sheet cover along with it. The soft and resiliently deformable material 18 yields to permit this motion, exercising an appreciable frictional drawing on the cover sheet C, thus drawing the covering sheet tautly over the outer surface of the button shell S. By reason of the described construction, the cover sheet will be retained in snug taut position after the button shell has come to rest, after which the tucking in or folding in operation, result of which is depicted in Fig. 6, may take place.

In Fig. 8 of the drawings I show the invention applied to a modified button structure in which the button back is formed in means to effect a more taut drawing of the covering onto the shell. In this modification, the parts similar to the parts shown in Fig. 7 are indicated by similar but primed reference characters. The button back B', for the purpose indicated, is provided at its rim with the spaced teeth 20.

In all structural forms of the invention, when the parts are assembled as shown in Figs. 7 and 8 of the drawings, the metal foil ring bends and is crumpled under finger pressure and forms a seal between the flange or rib r of the base and the returned flange f in the button shell. This aids in preventing the covering material from working itself loose out of the assembled button and eliminates the need for penetrating points or friction pressure to be used in assembling the button parts and in firmly retaining the covering material. As a result, the base B may be made not only smaller but narrower in diameter, allowing more of a spacing between its flange or rib r and the flange f of the button shell. As a result of this relatively loose fit, a home dressmaker may easily compress the base B into the shell S and shell S using only a light finger pressure. This is to be contrasted with other types of home covered buttons where it is difficult to insert the back into the button shell with finger pressure, points or a pressure fit being required to retain the covering material in the button. In such other structures a forcible blow is required for the insertion of the back piece into the button shell.

While, to carry out the results described, it is only necessary to laminate the peripheral portion of the covering material with the applied layer L, such layer may be applied and adhered to the entire surface of covering material for a purpose to be presently described. This is illustrated in Figs. 9 to 11 of the drawings wherein the element E² comprises a disc-shaped metal foil 102 coated with the adhesive 122 and protected by a suitable such as a glassine covering 142. When the glassine covering is removed the metal foil 102 is adherently applied to the fabric F, and the fabric is cut around the rim of the metal layer, the latter being used as a guide and template for this purpose, the resulting button shell being shown in Fig. 10 of the drawings comprising the disc layer 12 adhered to the covering C. This resulting member is employed in the same manner as described heretofore; and when used with button elements such as shown in Fig. 8, results in the production of a covered button as shown in Fig. 12. In Fig. 12 the button shell is designated as S² and the button back as B². This modification involving the use of a layer such as a metal foil over the entire surface of the fabric is particularly serviceable for
button shells which have a relief figure. The applied layer in imparting a form retaining property to the entire surface of the fabric covering permits the covering material to be pressed onto the shell so that the figure in relief may be transferred and become visible in the button cover.

The hand-assembled covered button of the present invention, the method thereof, the structure and use of the assisting tool and the various advantages of the same will in the main be fully apparent from the above-described description thereof. It will be further apparent that changes may be made in the structure of the parts and the practice of the method without departing from the spirit of the invention defined in the following claims.

I claim:

1. A hand-assembled fabric covered button comprising a button shell, a button base, mating means on said button shell and button base for securing the two in assembled relation, and a fabric covering for said button shell having a peripheral portion tucked into the interior of said shell between the same and the button base, the said fabric covering having applied to the inside face thereof and at least over its said peripheral portion a layer of metal foil constituting a pliable and form retaining material, said material having the property to overcome the natural springiness of the tucked-in peripheral portion of the fabric covering and to impart thereto its form retaining property.

2. A hand-assembled fabric covered button comprising a button shell, a button base, mating means on said button shell and button base for securing the two in assembled relation, and a fabric covering for said button shell having a peripheral portion tucked into the interior of said shell between the same and the button base, the said fabric covering having applied to the inside face thereof and over its said peripheral portion a layer of metal foil constituting a pliable and form retaining material, said material having the property to overcome the natural springiness of the tucked-in peripheral portion of the fabric covering and to impart thereto its form retaining property.

3. A hand-assembled cloth covered button comprising a button shell, a button base, peripheral interesting mating means on said button shell and button base for securing the two in assembled relation, and a cloth covering for said button shell having a peripheral portion tucked into the interior of the shell between the same and the button base and between the interesting mating means thereof, the said cloth covering having applied at least over its said peripheral portion a layer of a pliable and form retaining metal foil, said applied layer having the property to overcome the natural springiness of the tucked-in peripheral portion of the cloth covering to impart thereto its form retaining property.

4. The method of covering and assembling a fabric covered button of the type comprising a button shell, a button base, both provided with mating means for securing the two in assembled relation, and a fabric covering for the button shell having a peripheral portion tucked into the interior of the shell between the same and the button base, which consists in applying to the inside face of the fabric at least over the said peripheral portion of the fabric covering a layer of metal foil constituting pliable and form retaining material, in then covering the button shell with said fabric covering and tucking into the shell interior the peripheral portion of said fabric covering with its applied layer of material, said material functioning to overcome the natural springiness of the tucked-in peripheral portion of the fabric covering and imparting thereto its form retaining property, and in then securing the button base to the resulting assembly with the said peripheral portion of the fabric and its applied layer of material secured between the shell and the button base.

5. The method of covering and assembling a cloth covered button of the type comprising a button shell, a button base, both provided with interesting mating means for securing the two in assembled relation, and a cloth covering for the button shell having a peripheral portion tucked into the interior of the shell between the same and the button base and between the interesting mating means thereof, which consists in applying over the said peripheral portion of the cloth covering a layer of metal foil constituting a pliable and form retaining material, in then covering the button shell with said cloth covering and tucking into the shell interior the peripheral portion of said covering with its applied layer of material, said material functioning to overcome the natural springiness of the tucked-in peripheral portion of the cloth covering and imparting thereto its form retaining property, and in then securing the button base to the resulting assembly with the said peripheral portion of the fabric and its applied layer of material secured between the shell and the button base.

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