Dec. 5, 1944. N. I. FLEISCHER 2,364,062

BUTTON AND BUTTONHOLE TAPE

Filed Aug. 15, 1942

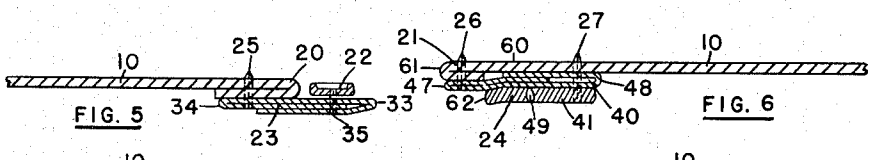


FIG. 5

FIG. 6

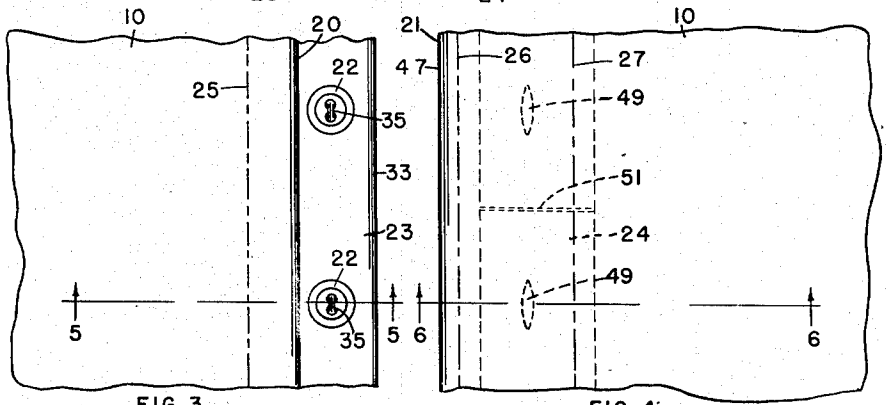


FIG. 3

FIG. 4

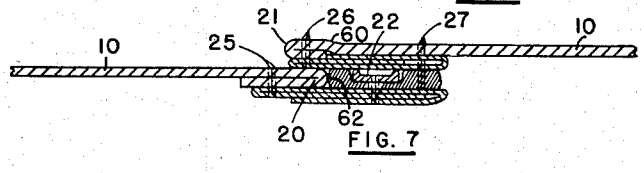


FIG. 7

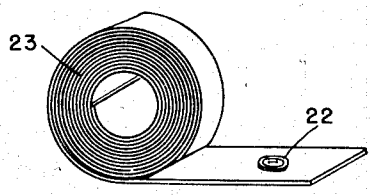


FIG. 10

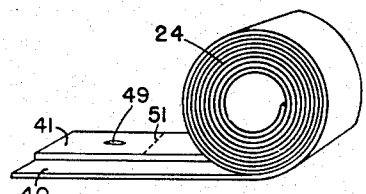


FIG. 11

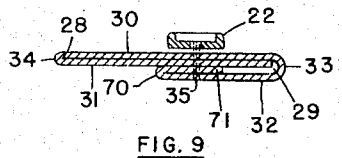


FIG. 9

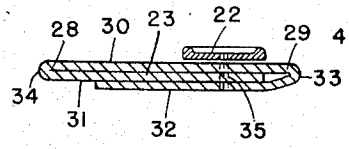


FIG. 1

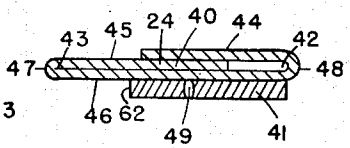


FIG. 2

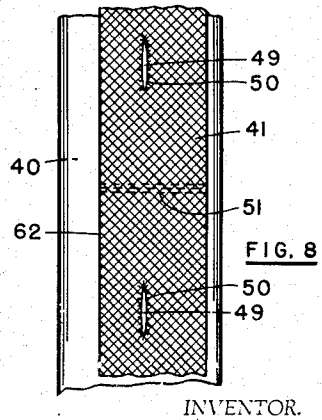


FIG. 8

INVENTOR.
NATHAN I. FLEISCHER

BY
Zugelter, Kinney & Zugelter
ATTORNEYS

Patented Dec. 5, 1944

2,364,062

UNITED STATES PATENT OFFICE

2,364,062

BUTTON AND BUTTONHOLE TAPE

Nathan I. Fleischer, Cincinnati, Ohio, assignor to The Fleischer Mills, Inc., Cincinnati, Ohio, a corporation of Ohio

Application August 15, 1942, Serial No. 454,913

4 Claims. (Cl. 2—265)

This invention relates to improvements in button and buttonhole tapes.

An object of the invention is to provide, preferably in roll form, continuous lengths of complementary button and buttonhole tapes.

Another object of the invention is to provide a button tape which is so constructed that the buttons which are attached to and carried by the tape are not likely to be torn off unless subjected to deliberate abuse.

Another object of the invention is to provide a button tape wherein the fabric to which the buttons are attached is constructed in such a manner as to reinforce or augment the ability of the fabric to retain buttons secured thereto by stitching.

A further object of the invetnion is to provide a buttonhole tape which comprises two elements; an attachment strip which is adapted to be secured to a supporting member, such as a garment, article of upholstery or the like and a buttonhole strip in which the buttonholes are located.

Still a further object of the invention is to provide a buttonhole tape of the character hereinabove described wherein the buttonhole strip is fabricated from relatively thick, resilient material which is characterized by its ability to permit the body portion of a button to become embedded therein for concealing the presence of a button associated therewith.

Still another object of the invention is to provide a complementary button and buttonhole tape which has the above characteristics, and which is adapted to be inexpensively manufactured by modern mass production methods.

These and other objects are attained by the means described herein and disclosed in the accompanying drawing, in which:

Fig. 1 is a sectional view of the button tape of the present invention.

Fig. 2 is a transverse sectional view of the complementary buttonhole tape of the present invention.

Fig. 3 is a front elevation of a length of button tape secured to the edge of a supporting member 10, such as a garment, an article of upholstery, or the like.

Fig. 4 is a front elevation of a length of buttonhole tape secured to an adjacent edge of the supporting member 10.

Fig. 5 is a sectional view on line 5—5 of Fig. 3.

Fig. 6 is a sectional view on line 6—6 of Fig. 4.

Fig. 7 is a sectional view of the button and buttonhole tapes of the present invention, showing the relationship of the various component parts of the tapes when they are connected to join the adjacent edges of the support members 10.

Fig. 8 is a front elevation of a length of the buttonhole tape of Fig. 2.

Fig. 9 is a sectional view of a modified form of button tape comprising a detail of the present invention.

Fig. 10 is a side perspective view of a length of button tape packaged in a roll form.

Fig. 11 is a side perspective view of a length of buttonhole tape packaged in roll form.

With reference to Figs. 3 to 6, the numerals 20-21 represent hems in the adjacent edges of a garment, slip cover, or the like, which adjacent edges are adapted to be releasably secured together by fastening means, such as buttons 22. The present invention is primarily directed to the provision of a pair of prefabricated complementary button and buttonhole tapes, denoted generally by the numerals 23 and 24 respectively, which are adapted to be quickly and securely attached along hemmed edges 20 and 21 by rows of stitching denoted by the numerals 25, 26 and 27.

With particular reference to Fig. 1, it will be observed that button tape 23 comprises a length of fabric or other suitable material folded lengthwise at 28 and 29 whereby to provide an upper ply 30, an intermediate ply 31, a lower ply 32, a finished forward edge 33 and a finished rear edge 34. Buttons 22 may be fastened to the upper ply 30 by suitable retaining means such as threads, or the like, denoted generally by the numeral 35, which pass through all three of plies 30, 31 and 32, as illustrated. The buttons are preferably located at regular intervals along and spaced back from and parallel to the forward edge 33, whereby the rows of buttons will be located nearer to the forward edge 33 than to the rear edge 34 in order that the row of buttons will be disposed in spaced parallelism from hem 20 when the tape has been fastened along the hemmed edge by means of stitching 25 which preferably passes through the two plies of hem 20 and the upper and intermediate plies 30 and 31 of the button tape. It will be observed that the only operation required to attach button tape 23 to the edge of a garment, slip cover or the like, is to apply a row of stitching 25. In order to facilitate handling and storage, lengths of button tape may be put up in roll form, as disclosed in Fig. 10, to be unrolled as and at the time of use.

With particular reference now to Figs. 2 and 8, it will be observed that the buttonhole tape comprises an attachment strip 40 and a buttonhole strip 41.

Attachment strip 40 comprises a length of fabric or other suitable material folded lengthwise at 42 and 43, whereby to provide an upper ply 44, an intermediate ply 45, a lower ply 46, a forward finished edge 47, and a rear finished edge 48. This attachment strip may, if desired, be fabricated from the same type and quality of material as that from which the button tape 23 is fabricated.

Buttonhole strip 41 comprises a length of material the width of which is preferably less than the overall width of attachment strip 40, as measured between the forward and rear edges 47 and 48. Strip 41 is provided with a series of spaced buttonholes 49 the perimeter of each of which may be suitably reinforced by means of stitching 50 or the like. The distance between adjacent buttonholes should correspond with the spacing of buttons 22 on the button tape, in order that proper alignment and correspondency may be had between the buttons of the button tape and the buttonholes of the buttonhole tape. The buttonhole strip 41 may be attached to the attachment strip 40 by means of rows of stitching 51 located between adjacent buttonholes, and extending at substantial right angles to the length dimension of the tape, as illustrated in Figs. 8 and 11.

The physical characteristics of the buttonhole strip differ considerably from the physical characteristics of the attachment strip in that the buttonhole strip is comparatively thick and resilient. The thickness dimension of the strip 41 is preferably, though not necessarily, at least equal to the thickness of a button 22, whereby a button may become embedded in the material adjacent a buttonhole to such an extent or degree as to substantially eliminate any tell-tale lumps or bumps which would indicate the presence of the buttons, when the tapes are connected, see Fig. 7. If desired, the buttonhole strip may be fabricated from thick threads loosely woven together. However, it should be clearly understood that although the buttonhole strip is thick and resilient, it is nevertheless sufficiently strong in tensile strength to function as an effective button retaining member which will not tear, give way or otherwise fail unless subjected to deliberate abuse.

The buttonhole tape may be, and preferably is, fastened along hemmed edge 21 by spaced rows of stitching 26 and 27. With particular reference to Figs. 4, 6 and 7, it will be observed that the buttonhole tape is fastened along hemmed edge 21 with forward edge 47 below, or preferably a short distance behind the forward edge 61 of hem 21, whereby the buttonhole tape is disposed under and is completely concealed by the material of the supporting member 10, comprising upper ply 60 of the hem.

It will be observed that the row of stitching 26 passes through the two plies of hem 21 and through the lower and intermediate plies 46 and 45, respectively, of the attachment strip 40, whereby the forward edge 62 of the buttonhole strip 41 is free and unattached along its length dimension to the attachment strip. The other row of stitching 27 passes through ply 60 of hem 21, the upper and lower plies 44 and 46 of attachment strip 40 and through the rear edge adjacent portions of buttonhole strip 41, whereby to provide a U-shaped pocket around each buttonhole, said pocket being open along its front edge, and closed along its rear by stitching 27, and along its side edges by rows of stitching 51.

The button tape disclosed in Fig. 9 is a modified form of the tape of Fig. 5, the primary distinction being that the free end of lower ply 32 is folded back at 70 whereby to provide an additional ply 71 through which the button retaining threads 35 may be passed.

With reference to Fig. 7, it will be observed that the forward edge 62 of the buttonhole strip 41 is adapted to abut, rather than overlap hem 20, whereby outer ply 60 of supporting member 10 is substantially flat, thereby providing a neat, finished surface at the joint or connection between the adjacent edges of the supporting member.

With reference to Figs. 10 and 11, it should be noted that no attempt has been made to indicate the various plies of button tape 23, nor of attachment strip 40 of tape 24, since these two views merely illustrate how the tapes may be rolled for the purpose of storage and use. In some instances, it may be desirable to sell the tapes in a buttoned-together condition, in which event the buttons 22 of the button tape would be hooked into their respective and corresponding buttonholes 49 of the buttonhole tape, after which the two tapes, thus connected, would be packaged in roll form.

Experiment and actual usage have indicated that the tapes comprising the present invention fill, in a very satisfactory manner, the need created in the upholstery business for a desirable, neat, inexpensive, yet practical closure means for use in slip covers, and the like. The present tapes are likewise being used in garments in those places where slide type fasteners were used prior to the present shortage of materials caused by the war.

It will be observed that the construction of the button tapes as disclosed in Figs. 1 and 9, provides a structure which is adequately reinforced along the row of buttons so as to provide ample and adequate anchorage for the button retaining threads 35, sufficient to withstand the concentrated stresses transmitted to the tape by the threads incident to a pull on button 22. Practice has demonstrated that the buttons are not likely to be pulled off unless subjected to deliberate abuse. It has likewise, been found that a two-ply thickness of material 30 and 31, is ample to provide anchorage for attaching threads 25, since the strain transmitted to threads 25 is transmitted or distributed over a considerable longitudinal area, whereas the strain transmitted to the button retaining threads 35 is concentrated to a small area adjacent said threads.

It should be understood that changes in the structural details of the tape may be made, within the scope of the appended claims, without departing from the spirit of the invention.

What is claimed is:

1. As a new article of manufacture, complementary button and buttohole tapes, said button tape comprising a long narrow lentgh of fabric folded whereby to provide a three ply thickness and having a row of buttons secured thereto by stitching, said buttonhole tape comprising a length of fabric folded lengthwise to provide a three ply thickness and a length of thick, resilient material secured thereto, the thickness of said material being of such a dimension as to at least equal the thickness of a button carried by the

complementary button tape, said material being provided with a row of button holes, one for and in alignment with each button of said button tape, said button adapted to become embedded within the body of said material flush with one surface thereof and without deformation of the other surface whereby the presence of such buttons is substantially concealed from view when the buttons engage their respective buttonholes for connecting the two tapes.

2. In combination with the adjacent edges of a garment, slip cover or the like, of a length of complementary button and buttonhole tapes, said button tape comprising a length of material folded lengthwise whereby to provide a finished forward and a finished rear edge each of two ply thickness, and an intermediate portion having a three ply thickness, a row of buttons secured to the intermediate portion by stitching, said button tape secured to and along one of said adjacent garment edges by a row of stitching through the two ply thickness adjacent its rear edge for positioning the buttons in spaced parallelism from said edge, said buttonhole tape comprising a length of material folded lengthwise whereby to provide an attachment strip having a finished forward edge of two ply thickness and a finished rear edge of three ply thickness, a length of thick, resilient material in which is provided a row of buttonholes, said material being secured to said attachment strip by rows of stitching located between adjacent buttonholes and disposed at right angles to the length dimension of the tape, the thickness of the material provided with the buttonholes being of a dimension sufficient to cushion and substantially embed a button introduced through a buttonhole within the body of said resilient material and flush with one surface thereof and without deformation of the other surface, whereby the presence of a button is effectively concealed from view, said buttonhole tape secured at, but under the other of said adjacent edges by a double row of stitching, one through its forward edge adjacent portion, the other through its rear edge adjacent three ply portion for positioning said tape as to conceal its presence when the buttons are engaged with their complementary buttonholes.

3. As a new article of manufacture, a prefabricated buttonhole tape of the type adapted to be attached to the edge of a garment, or the like, said tape comprising a multi-ply attachment strip adapted to be secured to and along the edge of a garment or the like, and a thick, resilient buttonhole strip secured to and carried by said attachment strip, said buttonhole strip being characterized by its ability to be displaced by a button introduced into a buttonhole whereby said button is substantially embedded within the body of the material flush with one surface thereof and without deformation of the other surface of the buttonhole strip adjacent a buttonhole, whereby the presence of a button is effectively concealed from view.

4. In combination with the adjacent edges of a garment, slip cover, or the like, a longitudinal strip member projecting from and secured to one of said adjacent edges, said strip member comprising a length of material folded lengthwise whereby to provide a finished forward and a finished rear edge each of two ply thickness and an intermediate portion having a three ply thickness, and a row of buttons secured to the intermediate portion by stitching, and a longitudinal strip member secured to and underlying the other of said adjacent edges, said strip member comprising a length of thick resilient material having buttonholes provided therein, said resilient material characterized by its ability to cushion and substantially embed buttons introduced through said buttonholes within the body of said resilient material and flush with one surface thereof and without deformation of the other surface, whereby the presence of such buttons is effectively concealed from view.

NATHAN I. FLEISCHER.