METHOD OF PRODUCING A STITCHED SEAM

4 Claims, 7 Drawing Figs.

U.S. Cl. 112/262, 112/426
Int. Cl. D05b 1/00
Field of Search 112/262, 423, 426, 440, 425; 2/243

ABSTRACT: The method of producing an opened (busted) stitched seam between two plies of fabric in which the fabrics in face-to-face relation are stitched together by a line of zigzag stitches which vary in bight from a base line, following which the fabric plies on both sides of the line of stitches are opened each ply being folded upon itself about the base line of the stitches.
METHOD OF PRODUCING A STITCHED SEAM

BACKGROUND OF THE INVENTION

When two plies of fabric are stitched together by a line of straight stitches, or by a line of zigzag stitches of uniform height, the resulting seam will remain open or "busted" as it is called in the sewing art, only after the plies are ironed in the opened position. This makes the formation of opened or busted seams by the use of conventional procedures a tedious process involving alternate sewing and pressing.

SUMMARY OF THE INVENTION

This invention provides a method for preparing opened or busted seams in which two plies of fabric are joined in face-to-face relation by a stitched seam including straight and zigzag stitches or zigzag stitches which vary in bight about a base line. The plies of fabric are then separated about the straight stitches or about the base line and a force is exerted in directions pulling the fabric plies apart. The seam allowances will automatically reorient themselves in folded back relationsh-hip each upon its respective fabric ply, and the stitched seam will hold the plies in this "busted" or opened position without the necessity for ironing.

DESCRIPTION OF THE DRAWING

Preferred embodiments of this invention are illustrated in the accompanying drawing in which:

FIG. 1 represents a perspective view of superposed plies of fabric through which a stitched seam has been formed as a step in the method of this invention,
FIG. 2 represents a perspective view of the plies of fabric of FIG. 1 after the method in accordance with this invention has been completed and with a portion of the fabrics being folded over to exhibit the underside,
FIG. 3 represents a perspective view of superposed plies of fabric through which a stitched seam of a type different from that illustrated in FIG. 1 has been formed as a step in the method of this invention,
FIG. 4 represents a perspective view similar to that of FIG. 2 but illustrating the fabrics of FIG. 3 after the method of this invention has been completed,
FIG. 5 is an enlarged quasi-diagrammatic cross-sectional view taken substantially along line 5-5 of FIG. 3,
FIG. 6 is an enlarged quasi-diagrammatic cross-sectional view taken substantially along line 6-6 of FIG. 4, with the stitches displaced slightly out of their actual relationship, and
FIG. 7 is an enlarged cross-sectional view like FIG. 6 but taken substantially along line 7-7 of FIG. 4.

As illustrated in the accompanying drawing, the novel method of this invention is useful in producing an opened or busted seam between two plies of fabric. The finished opened seam, which results from the practice of this invention, is illustrated in one form in FIG. 2 and in a modified form in FIGS. 4, 6 and 7. Referring to FIGS. 1 and 2, the seam, in accordance with this invention, is made by placing two fabric panels 20 and 21 in face-to-face relation and securing these panels together by a line of stitching 22. The stitching 22 is comprised of a recurring pattern of zigzag stitches 23 and straight stitches 24, with the straight stitches being arranged along a base line X-X and the zigzag stitches 23 extending equally on opposite sides of the base line X-X. The line of stitches 22 is formed inwardly from an edge of the fabric panels so as to provide what is referred to in the art as seam allowances 30 and 31 on the fabric plies 20 and 21, respectively.

After the stitches 22 has been produced to join the fabric panels 20 and 21 as shown in FIG. 1, the method of this invention is completed by separating and pulling apart the two fabric panels 20 and 21 into the opened or busted position as illustrated in FIG. 2. The application of a force on the separated plies 20 and 21 away from the base line X-X of the stitches will automatically cause the seam allowances 30 and 31 to assume a position each overlying the fabric plies 20 and 21, respectively, as is shown in FIG. 2. The appearance of the zigzag stitches 24 will change when the fabric panels are separated, opened or busted, and the new appearance of the zigzag stitches will imitate saddle stitches 25, i.e., the stitches will imitate hand sewn stitches in that completely separated and isolated stitches will appear on the face of the goods. When a stitched seam 22, as shown in FIGS. 1 and 2, is used in the practice of this invention in which the zigzag stitches extend on opposite sides of the base line X-X, the pattern of imitation saddle stitches will appear on the open or busted seam at each side thereof as is illustrated in FIG. 2.

FIGS. 3 and 4 illustrate the fabric arrangement which results when the method of this invention is practiced using a different type of stitched seam from that illustrated in FIGS. 1 and 2. As shown in FIG. 3, two fabric panels 40 and 41 are placed in face-to-face relation and a line of stitches 42 joining the fabric panels. The line of stitches 42 in FIG. 3 comprises alternate pairs of zigzag stitches 43 which extend only to one side of the base line X-X and which are separated by groups of straight stitches 44. As shown in FIG. 4, when the stitched fabric panels 40 and 41 of FIG. 3 are separated and a force is applied in opposite directions from the base X-X from the line of securing stitches 42, the seam allowances 50 and 51 of the fabric panels 40 and 41, respectively, will assume new positions each seam allowance extending over its respective fabric ply and the pairs of zigzag stitches 43 will appear on the seam allowance side of the separated fabric panels 40 and 41 as widely spaced imitation saddle stitches 45. As shown in FIG. 4, the opposite side of the fabric panels 40 and 41 as widely spaced imitation saddle stitches 45. As shown in FIG. 4, the opposite side of the fabric panels 40 and 41 when joined by the method of this invention do not show any of the securing stitches.

FIGS. 5, 6, and 7 illustrate the various successive stages of fabric disposition in the practice of the method in this invention and serve to explain why the opened seams made in accordance with this method will retain their open or busted position without the necessity for ironing. FIG. 5 illustrates in cross section the position of fabric plies with a straight stitch 44 and an adjacent zigzag stitch 43 of the line of stitches 42. FIG. 6 illustrates an intermediate position of the fabric pieces in which the plies 40 and 41 have been separated, but in which seam allowance portions 50 and 51 have not. FIG. 7 illustrates the condition of the fabric portions and of the stitches when separation and opening of the seam allowance portions 50 and 51 has been completed. It will be noted in FIG. 7 that the seam allowance portions 50 and 51 have been shifted relatively to the threads of the zigzag stitches and it will be apparent in this figure that these zigzag stitches which appear as a saddle stitch 44 serve frictonally to lock the seam allowance portions 50 and 51 in the opened or busted condition. In FIGS. 6 and 7 the straight line of stitches 44 are illustrated below the zigzag stitches. This is done in the interest of clarity of illustration although in the actual stitched product these straight line stitches 44 would be located on a level with the lower branch of the zigzag stitches in FIGS. 6 and 7.

Having thus set forth the nature of this invention, what I claim herein is:

1. The method of joining a pair of fabric plies comprising placing the fabric plies in face-to-face relation, forming through said plies of fabric a stitched seam comprising alternate zigzag stitches and substantially straight stitches, shifting said fabric plies on both sides of said stitched seam about a base line defined by said substantially straight stitches from said face-to-face relation into substantially coplanar relation, each fabric ply being doubled upon itself.

2. The method of joining a pair of fabric plies as set forth in claim 1 including the step of forming zigzag stitches on the stitches to extend laterally on only one side of said base line defined by said substantially straight stitches.

3. The method of joining a pair of fabric plies as set forth in claim 1 including the step of forming the zigzag stitches of the stitched seam in a regularly recurring pattern of zigzag and substantially straight stitches.
4. The method of joining a pair of fabric plies as set forth in claim 1 including the step of forming the stitches of the stitched seam in a regularly recurring pattern of zigzag and substantially straight stitches in which the zigzag stitches extend alternately on opposite sides of said base line defined by said substantially straight stitches.