A lady's panelled skirted type undergarment of warp knitted fabric in the category of slips, skirts and the like, which when worn has little or no tendency during wearer movements to ride-up on the wearer's body or twist due to rubbing contact friction with other garments worn by the wearer, for example, panty hose and the wearer's dress.

2 Claims, 12 Drawing Figures
LADY'S PANELLED UNDERGARMENT AND METHOD OF MAKING SAME

The panelled undergarment of warp knitted fabric when the wearer stands is characterized by a substantially vertical alignment of the panels with the vertical columns of loops comprising the wales of the panels disposed in substantially parallel relation and with the open ends of the loops disposed toward the upper part or top of the undergarment. However, the substantially parallel relation specified with respect to the alignment of the panels of the undergarment is not required in its strictest sense which would limit embodiments to substantially constant diameter cylindrical form. The shape of slips and skirts is frequently changed dependent upon fashion trends. Thus, when the configuration of the panels and the seams joining the panels results in panels in which the alignment of the columns of loops is not strictly in parallel relation, it will not severely limit the ability of the undergarment to substantially minimize said tendency to ride-up or twist.

The lay profile or lay-up method utilized in cutting and forming the panels of the undergarment consists in spreading upon a cutting table a multiplicity of superposed separate layers of cut lengths of warp knitted fabric, each layer being disposed so that the columns of loops comprising the wales in each layer are in substantially parallel relation, with the open ends of the loops thereof disposed in a single direction. The superposed separate layers of fabric are then cut simultaneously in accordance with the panel pattern to produce a multiplicity of identical panels ready to be seamed to form the completed undergarment.

BRIEF SUMMARY OF THE INVENTION

The present invention provides a lady's panelled skirted type undergarment of warp-knit fabric in the category of slips, skirts and the like, which when worn with the other garments has little or no tendency to ride-up on the wearer's body or twist thereupon due to active movement of the wearer due to interfabric friction. A further object is to provide a lay-up method for cutting the panels of the garment.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic drawing illustrating the "lay profile" of a prior method of lay-up employed in the production of a lady's panelled undergarment of warp-knit fabric in the category of slips, underskirts and the like.

FIG. 2 is a schematic drawing illustrating the prior method of cutting the layers of fabric laid as in FIG. 1 to produce a plurality of front and back panels as indicated by A, B, C, D for an undergarment.

FIG. 3A, B shows the disposition of the loops in the front and back panels A, B, C, D, as cut in FIG. 2. FIG. 3A shows the front panel A, the open end of the loops of which are directed toward the top portion of the garment and FIG. 3B shows the back panel the open of the loops of which are directed toward the bottom part of the garment.

FIG. 4 is a schematic drawing illustrating the "lay profile" of the improved method of lay-up employed in the production of the lady's panelled undergarment of warp-knit fabric in the category of slips, underskirts and the like, in accordance with the invention.

FIG. 5 is a schematic drawing illustrating the improved method of the invention for cutting the layers of fabric laid as in FIG. 4 to produce the front and back panels E, F.

FIGS. 6E, F show the disposition of the loops in the front and back panels, as cut in FIG. 5. FIG. 6E shows the open end of the loops of the front panel directed toward the top portion of the garment and FIG. 6F shows the open end of the loops of the back panel directed likewise toward the top portion of the garment.

FIGS. 7A, B shows the prior art garment with the panels A, D of FIG. 2 seamed to produce the garment with the front thereof panel A, having the open ends of the loops directed toward the bottom of the garment and with the back thereof panel D, having the open ends of the loops directed toward the top of the garment.

FIGS. 8A, B shows the panelled undergarment of the invention wherein the front panel of the garment A has the open ends of the loops directed toward the top of the garment and the back panel of the garment B has the loops directed likewise toward the top of the garment.

DETAILED DESCRIPTION

The drawings FIGS. 1, 2, 3A, B and 7A, B illustrate a prior panelled undergarment slip of warp-knit fabric and the method of making the same including the lay-up and the cutting of the fabric to form the front and back panels thereof. FIGS. 7A, B show a completed undergarment and the orientation of the loops in the front and the back panel portions of the garment.

FIG. 1 shows the prior method of "lay-up" which consists in laying or spreading on a cutting table a folded superposed length of warp-knit fabric, with the columns of loops thereof comprising the wales in such fold or layer arranged in substantially parallel relation and with the open ends of the loops in alternate layers disposed in opposite directions as indicated at 3.

With the fabric "layed up" as in FIG. 1, it is cut in accordance with panel patterns to produce a plurality of front and back panels such as A, B, C, D of FIG. 2.

In accordance with the lay-up of FIG. 1 and the cutting as shown in FIG. 2, front and back panels A, D as shown in FIGS. 3A, B are produced wherein the open ends of loops in front panel A are directed toward the top of the garment, while in back panel D the open ends of the loops are directed toward the bottom of the garment.

When the panels are seamed to form the completed garment as shown in FIGS. 7A, B, the front panel of the garment will have the open ends of the loops thereof directed toward the bottom portion of the garment as shown in FIG. 7A, while the back panel of the garment will have the open ends of the loops thereof directed toward the top portion of the garment as shown in FIG. 7B.

Wear tests and customer complaints in respect of the prior panelled undergarments of FIGS. 7A, B, made by the methods of FIGS. 1, 2, 3, indicated that the garments had pronounced tendency to ride-up on the wearer or to twist during wearer movements.

Research conducted with warp-knit fabrics in rubbing contact friction with other fabrics indicated that the orientation of the loops forming the wales of the subject fabric provided a solution to the tendency to ride-up and twist.

Accordingly, the method of lay-up of FIG. 4 was devised wherein a multiplicity of superposed cut layers of
warp-knit fabric 4, are spread upon the table 5, with the columns of loops comprising the wales in each fabric-layer arranged in substantially parallel relation and with the open ends of the loops in each layer disposed in the same direction, as indicated at 6.

Thereupon, the superposed layers of fabric as laid-up in FIG. 4 are cut in accordance with front and back panel patterns to produce a plurality of panels as E, F, of FIG. 5 to provide the front and back panels, respectively, of the undergarment.

FIGS. 6E, F show the panels E, F, of FIG. 5 having columns of loops 7 comprising the wales of the panels in substantially parallel relation and with the open ends 8 of the loops oriented in the same direction toward the top of the garment.

FIGS. 7A, B show the panels A, D of FIG. 2 seamed to form a completed garment of the prior art wherein the open ends of the loops 9 of the front panel A are directed toward the bottom portion of the garment while the open ends of the loops 10 of the back panel B are oppositely directed toward the top portion of the garment.

FIGS. 8A, B show the front and back panels of the completed garment in accordance with the invention. The columns of loops 11 in each panel comprising the wales are disposed in substantially parallel relation and with the open ends 12 of the loops oriented in the same direction, toward the top portion of the garment.

The improved panelled undergarment of FIGS. 8A, B in accordance with the invention when worn with other garments, such as panty hose and a dress or skirt is substantially free of the tendency to ride-up or twist during active movements of the wearer.

I claim:

1. A lady's panelled skirted type undergarment of warp-knit fabric in the category of slips, underskirts and the like comprising
   a. a plurality of panels of warp-knit fabric,
   b. said panels being joined by seams therebetween to form a garment having front and back and top and bottom portions,
   c. each of said fabric panels having columns of loops comprising the wales thereof disposed in substantially parallel relation,
   d. the open ends of the loops in each panel being directed toward the top portion of the garment to minimize interfabric friction,
   whereby the panelled undergarment when worn with outer garments is substantially free of the tendency to ride-up or twist during active movements of the wearer.

2. The method of making a lady's panelled skirted type garment which comprises
   a. cutting a warp-knit fabric material in a multiplicity of separate lengths,
   b. spreading said multiplicity of lengths of fabric on a lay-up table in superposed layer relation,
   c. disposing the columns of loops comprising the wales in each superposed layer in substantially parallel relation with the open ends of said loops oriented in the same direction,
   d. cutting said superposed layers in accordance with a pattern to produce a multiplicity of panels for the front and back respectively of the undergarment,
   e. seaming a front and a back panel to form the undergarment's front and back and top and bottom portions wherein the columns of loops comprising the wales of each panel are disposed in substantially parallel relation with the open ends of the loops in each panel directed toward the top portion of the undergarment.

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