

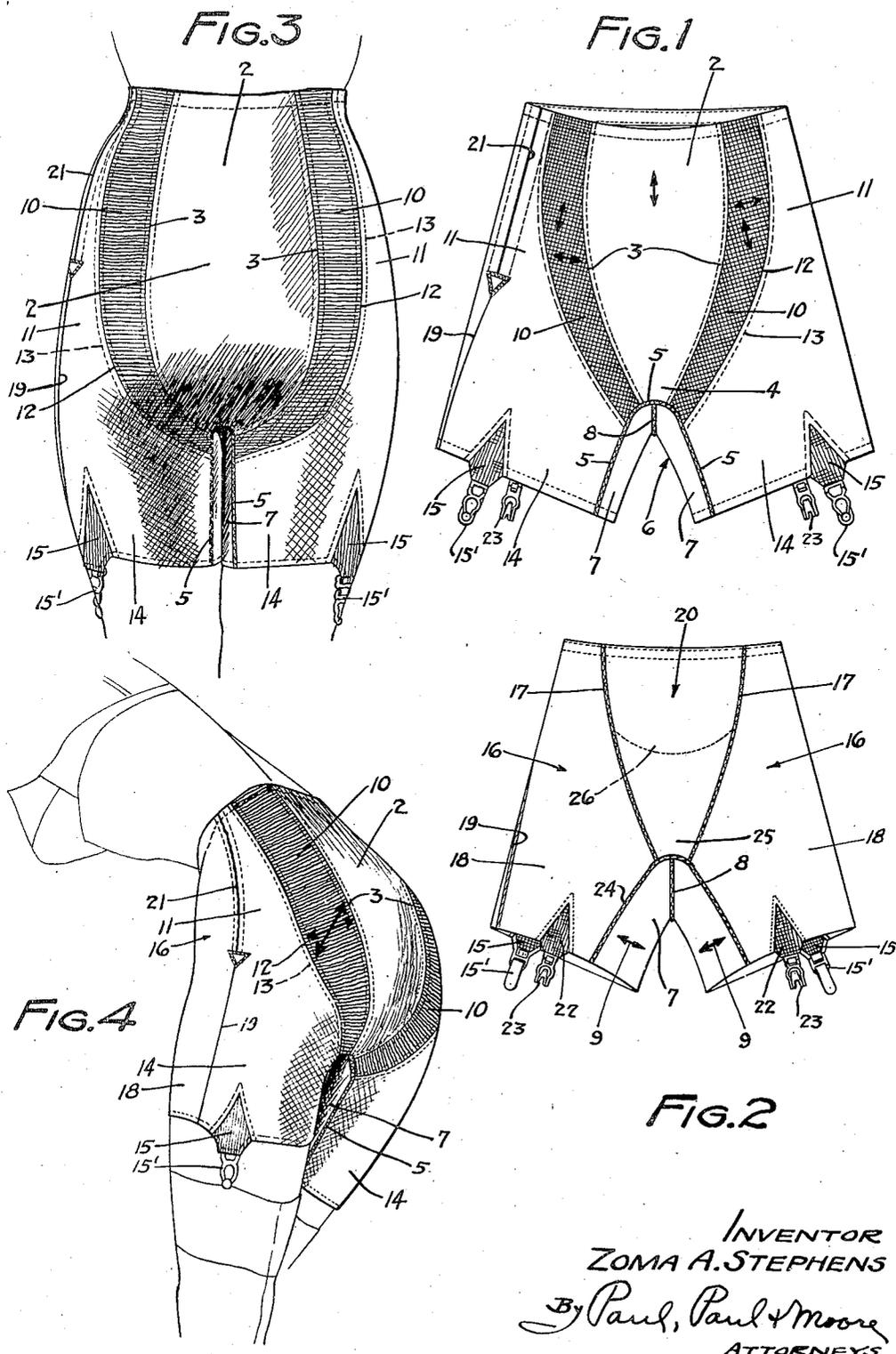
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LADY'S UNDERGARMENT

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LADY'S UNDERGARMENT

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This invention relates to new and useful improvements in ladies' undergarments and more particularly to such garments of the pantie-girdle type.

In the manufacture of garments of this general type, it has been quite common practice to provide one or more elastic sections in the body of the garment to render the garment form fitting, and to allow for expansion of the figure as a result of stooping or sitting positions, and also whereby the garment will have ample strength to provide the necessary constricting and molding action to the body of the wearer. Such garments have proven more or less practical, but have not always provided the utmost in comfort. A garment of the pantie-girdle type should be so designed that the garment is always comfortable upon the wearer, regardless of the various positions which may be assumed by the figure, and whereby the upper portion of the rear of the garment is not likely to pull or creep downwardly at the waistline, when the wearer stoops or sits down. A pantie-girdle anchors in the crotch, and as the buttock is somewhat spherical in shape and may expand considerably, when the figure stoops or sits, it is essential that the rear of the garment which overlies the buttock be so constructed as to allow for such expansion of the figure without exerting severe strains in any portions of the garment or in the seams thereof, and to assure that the garment will always be form fitting in all positions of the figure, and will retain its proper position thereon.

To overcome the difficulties now inherent in garments of this general type, I have discovered from considerable experimental work, that by embodying two scientifically designed curved elastic sections in the posterior portion of the garment, one at each side of the central portion thereof, which sections are made of two-way stretch elastic material, whereby they are stretchable in all directions, a garment may be constructed in such a manner that it will readily yield to expansion of the figure across the buttock, as a result of stooping or sitting positions, without exerting undue strains on the seams, and without causing the garment to draw or pull down at the waistline. Also because of the unique shape of said curved elastic sections and their particular locations in the garment, the garment will always retain its form fitting characteristics, and will be comfortable on the wearer, regardless of body movements.

It is therefore an important feature of the present invention to provide a garment of the

class described having a pair of narrow, elongated curved sections of two-way stretch elastic fabric embodied in the rear portion thereof, and extending from the crotch to substantially the waistline in outwardly and upwardly sweeping curves, and a panel of one-way stretch material being interposed between said curved sections and stretchable in a vertical direction only, thereby to allow the central back portion of the garment to readily elongate as a result of stooping or sitting positions, and said curved sections functioning to permit the garment to yield in all directions over the posterior region on the wearer, as a result of expansion of the body across the buttock, when the wearer is in a stooping or sitting position.

A further object of the invention is to provide a garment of the class disclosed having its back composed of a vertically disposed stretchable panel having convex side edges, and a pair of narrow, elongated curved sections being secured to said convex edges and adapted to overlie the buttock of the figure, and said curved sections having their outwardly convex edges suitably stitched or secured to rear side sections, and the front of the garment extending around to the sides and secured to said rear side sections at the sides of the garment, the front of the garment and said rear side sections being composed of a special knitted fabric which has little or no horizontal, or circumferential stretch, but has a certain amount of up and down or vertical stretch, thereby to give sufficient elasticity to said front and rear side sections whereby they may stretch vertically to allow for elongation of said curved members, as a result of stooping or sitting, and whereby the fabric and seams of the back of the garment will not be subjected to severe pulling strains.

Other objects of the invention reside in the simple construction of the garment whereby it may be manufactured in quantity production at low cost; in the construction of a pantie-girdle which is so constructed as to permit adequate flexibility to expansion and contraction of the figure, regardless of various positions assumed thereby, and whereby such flexibility and yieldability of the seat portion of the garment may be achieved with a minimum of two-way stretch material, the use of which is now more or less restricted because of the defense program.

Other objects of the invention will appear from the following description and the accom-

panying drawing and will be pointed out in the annexed claims.

In the accompanying drawing there has been disclosed a structure designed to carry out the various objects of the invention, but it is to be understood that the invention is not confined to the exact features shown, as various changes may be made within the scope of the claims which follow.

In the drawing:

Figure 1 is a rear view of the garment;

Figure 2 is a front view thereof;

Figure 3 is a rear view of the garment showing it on a figure; and

Figure 4 is a view showing the garment on a figure which is in a stooping or sitting position.

The novel garment herein disclosed is shown comprising a rear central panel 2 of a suitable elastic fabric, stretchable in a vertical direction, as indicated by the arrow in Figure 1, but having substantially no horizontal stretch. The panel 2 extends from the waist to the crotch, and its side edges 3 are convex, as clearly illustrated in Figure 1. The lower end or tip 4 of the back panel 2 is shown secured by a row of stitches 5 to a crotch piece, generally designated by the numeral 6. The crotch piece, as herein shown, is composed of two sections 7 united along the median plane of the garment by a row of stitches 8. The fabric from which the crotch piece is made is stretchable in a horizontal direction as indicated by the arrows 9 in Figure 2, but has little or no stretch in a vertical direction.

An important feature of this present invention resides in the means provided in the garment for permitting the rear portion thereof which overlies the buttock to readily yield to the expansion of this portion of the body in all directions, with a minimum of elastic fabric, when the body is in a stooping or sitting position. When a body is in a stooping or sitting position, it may expand considerably across the buttock, particularly so when the figure is in a sitting position and the weight of the body is imposed thereon.

Heretofore it has been common practice by many garment manufacturers to construct all, or the major portion of the rear of garments such as pantie-girdles, of two-way stretch elastic fabric to allow ample stretch in the fabric to accommodate expansion of the body without imposing excessive strains in any portions of the fabric. Such construction requires a considerable amount of two-way stretch elastic fabric which is now difficult to obtain because of the defense program.

The novel garment design herein disclosed has made it possible to construct garments of this general type with considerably less elastic fabric, and yet provide all of the desired qualities of a garment whose entire rear portion may be constructed of a two-way stretch elastic fabric. This is readily accomplished by embodying in the rear of the garment two oppositely disposed curved elongated sections 10 of two-way stretch elastic fabric, such as is commonly known to the trade as "Power net," provided such curved sections are properly shaped, and are so located as to overlie certain definite areas of the figure where the greatest expansion may take place, whereby ample stretch is provided in the garment to allow for all stooping, bending, or other body movements without imposing severe strains in any portion of the gar-

ment, and whereby the garment will have the necessary constricting and molding action on the body without any tendency of pulling down at the waistline or pulling up in the crotch.

To accurately determine the most advantageous locations for the two-way stretch elastic sections 10, an elastic garment having its entire rear portion suitably marked off in one inch squares, was placed on a live figure or model, and the rear of the garment was then carefully observed, as the figure went thru various body movements such as stooping, sitting, and other movements which might place a strain in the fabric in the posterior region of the garment. After carefully observing the garment during various bending movements thereof, the areas showing the greatest stretch in the fabric were carefully marked off while the fabric was under tension, and the direction of stretch of the fabric was also noted. The noted areas were found to be in the shape of narrow elongated curved areas overlying the side portions of the buttock at each side of the rear central portion of the garment. The stretch area was found to be in various directions, as indicated by the arrows in Figure 4. A garment was then constructed as hereindisclosed, embodying two elongated, narrow curved sections 10, which were located at opposite sides of the rear panel 2, as shown in Figure 1. The curved sections 10 were constructed of two-way stretch elastic fabric, such as "Power net," which sections were found to provide ample stretch in the rear of the garment to allow for all body movements without imposing excessive strains in any portions of the fabric in the rear of the garment. It was also found that by thus constructing the garment, the rear upper edge of the garment would not pull or drawn down at the waistline, nor would the garment tend to pull up in the crotch, thus resulting in a form-fitting garment having the desired constricting and molding action on the figure and, at the same time, providing the utmost in comfort.

The narrow elongated curved sections 10, it will be noted by reference to the drawing, are located at opposite sides of the rear central panel 2, and each has its adjacent concave edge stitched or suitably secured to the adjacent convex edge 3 of the panel 2. The sections 10, as clearly shown in Figures 1, 3 and 4, extend upwardly and outwardly in long sweeping curves from the crotch seam 5 to the top of the garment, and gradually increase in width in an upward direction to allow ample stretch in the garment over the buttock.

The sections 10, as hereinbefore stated, are preferably made of a suitable two-way stretch fabric, such as "Power net," which has considerable elasticity in two directions, whereby it may also readily stretch or yield in all directions.

To complete the rear portion of the garment, rear side sections 11, each having an inwardly facing curved edge 12, are secured to the outer convex edges of the curved sections 10 by suitable means 13, as shown in the drawing. In the type of garment herein disclosed, the rear side sections 11 are provided with leg-forming portions 14 having elastic garter supporting inserts 15 embodied in their lower edges for supporting suitable garters or hose supporters 15. The inner-edges of the leg portions 14 are secured to the crotch piece 7 by the seam 5, as best shown in Figure 1.

The front of the garment is shown composed of a central panel 20 and side sections 16 stitched to the central panel 20 by seams 17. The front side sections 16, like the rear side sections 11, are provided with leg-forming portions 18 which cooperate with the rear leg portions 11 and the sides or leg portions of the crotch piece to complete the formation of the leg portions of the garment. The front side sections 16 are stitched to the rear side sections 11 by suitable side seams 19, shown in Figures 1 and 2. An opening 21 is provided in one side of the garment whereby the garment may be partially opened up to facilitate slipping it on or off the figure. The opening 21 may be closed with a zipper, hooks and eyes, or other fastening means suitable for the purpose. Elastic garter inserts 22 are preferably provided in the front side sections 16 to support the front garters 23. The inner-edges of the front side sections 16 are secured to the crotch piece 7 by a row of stitches 24, which extends upwardly from the lower edges of the leg openings of the garment to the front portion of the crotch piece 7, where it also secures the lower reduced end portion 25 of the front panel 20 to the crotch piece 7. The inner edges of the lower portions of the rear side sections 11 are secured or suitably stitched to the adjacent edges of the crotch piece 7 by the seam 5.

The front panel 20 and rear and front side sections 11 and 16, respectively, are made from a special knit fabric which has no material horizontal stretch, but has reasonable up and down stretch to give ample flexibility to the front and leg portions. A suitable reinforcing panel 26 is preferably secured to the upper inner side of the front panel 20 to support the abdomen.

An important feature of this invention, as hereinbefore stated, resides in the provision of the outwardly curved elastic sections 10 in the rear of the garment, which are so shaped and located that they provide ample stretch in the rear of the garment in all directions, regardless of the various positions which may be assumed by the figure. By the embodiment of these curved sections in the rear of the garment, a garment may be constructed having ample stretchability in all directions with less elastic fabric than has heretofore been possible, and with the assurance that the garment will not creep or pull down from the waistline, and that the garment will always snugly fit the figure and provide the desired contracting and molding action.

While I have herein shown the invention embodied in a pantie-girdle garment comprising rather pronounced leg portions, it is to be understood it may be embodied in other types of garments, where applicable, without departing from the scope of the invention.

It will be apparent to those skilled in the art that I have accomplished at least the principal objects of my invention, and it will also be apparent to those skilled in the art that the embodiments herein described may be variously changed and modified, without departing from the spirit of the invention, and that the invention is capable of uses and has advantages not herein specifically described; hence it will be appreciated that the herein disclosed embodiments are illustrative only, and that my invention is not limited thereto.

I claim:

1. A garment of the class described comprising a body provided with a rear central panel of one-way stretch material, stretchable in a ver-

tical direction, a pair of narrow, elongated sections of two-way stretch elastic fabric secured to the opposed side edges of said rear central panel and extending downwardly from the waistline and arranged to overlie the buttocks, a front section, and rear side forming sections secured to the front section at the sides of the garment and having their rear edges secured to the outer edges of said narrow, elongated two-way stretch sections, said narrow, elongated sections being capable of stretching in all directions, thereby to permit the seat portion of the garment to readily yield to expansion of the figure across the buttocks, when the wearer is in a stooping or sitting position.

2. A garment of the class described comprising a body provided with a rear central panel having outwardly curved side edges extending downwardly from the waistline and terminating at the crotch, said panel being composed of one-way stretch material, stretchable in a vertical direction, a pair of narrow, elongated sections of two-way stretch elastic fabric secured to the outwardly curved side edges of said rear central panel and extending substantially from the waistline to the crotch and arranged to overlie the buttocks, a front section, and rear side forming sections secured to the front section at the sides of the garment and having their rear edges secured to the outer edges of said narrow, elongated two-way stretch sections, said narrow, elongated sections being so shaped and located in the garment as to provide adequate stretch in all directions in those portions of the garment which overlie the buttocks, thereby to permit the seat portion of the garment to readily yield to expansion of the figure across the buttocks, when the wearer is in a stooping or sitting position.

3. A garment of the class described comprising a body provided with a rear central panel having convex side edges curving inwardly from the waistline to the crotch, said panel being composed of one-way stretch material, stretchable in a vertical direction, a pair of narrow, elongated, curved sections of two-way stretch elastic fabric secured to the opposed side edges of said rear central panel and extending substantially from the waistline to the crotch and arranged to overlie the buttocks, said elongated sections being of substantially uniform width their entire length, a front section, and rear side forming sections secured to the front section at the sides of the garment and having rear concave edges secured to the outer convex edges of said narrow, elongated, curved sections, said curved sections being capable of stretching in all directions thereby to permit the seat portion of the garment to readily yield to expansion of the figure across the buttocks, when the wearer is in a stooping or sitting position.

4. A garment of the class described comprising a body provided with a rear central panel of one-way stretch material, stretchable in a vertical direction only, said panel extending from the waistline to the crotch and having its opposed side edges outwardly curved, a pair of narrow, elongated, curved sections composed of two-way stretch elastic fabric arranged at each side of said rear panel and each having a concave edge secured to the adjacent outwardly curved edge of the rear panel, a front section having limited vertical stretch and provided at its bottom with leg-forming portions, rear side forming sections having inwardly facing curved edges

secured to the outer curved edges of said narrow two-way stretch sections and having leg-forming portions, the opposite edges of said rear side-forming sections being stitched to the front sections along the sides of the garment, said narrow, elongated, two-way stretch sections extending from the waistline to the crotch and arranged to overlie the buttocks of the wearer and providing ample stretch in the rear of the garment in all directions, whereby the garment may readily expand across the buttocks, when the wearer is in a stooping or sitting position.

5. A pantie-girdle comprising a body provided with a rear central panel of one-way stretch material, stretchable in a vertical direction only, said rear panel extending from the waistline to the crotch and having its opposed side edges curving inwardly from the upper portion of the panel to the crotch, a crotch piece secured to the lower end of said rear panel, a front panel extending downwardly from the waistline and having its lower end secured to the front of the

crotch piece, said crotch piece comprising leg-forming portions, a pair of narrow, elongated, curved sections composed of two-way stretch elastic fabric, said narrow, elongated, two-way stretch sections having their inner concave edges secured to the outwardly curved edges of the rear panel and extending from the waistline to the crotch and having their lower terminals secured to the crotch piece, said narrow, two-way stretch sections substantially uniform in width from the waistline to the crotch, rear side sections stitched to the outer curved edges of said elongated, two-way stretch sections and having leg-forming portions secured to the crotch piece, and front side sections secured to the front panel and to the rear side sections along the sides of the garment, said front sections having leg-forming portions secured to the crotch piece and said rear side sections to complete the formation of the leg portions of the body of the garment.

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