

May 5, 1959

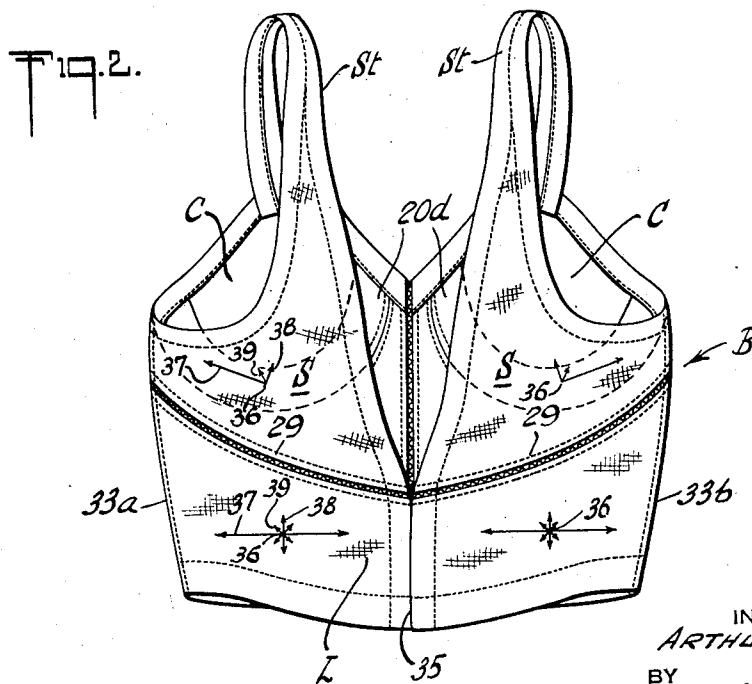
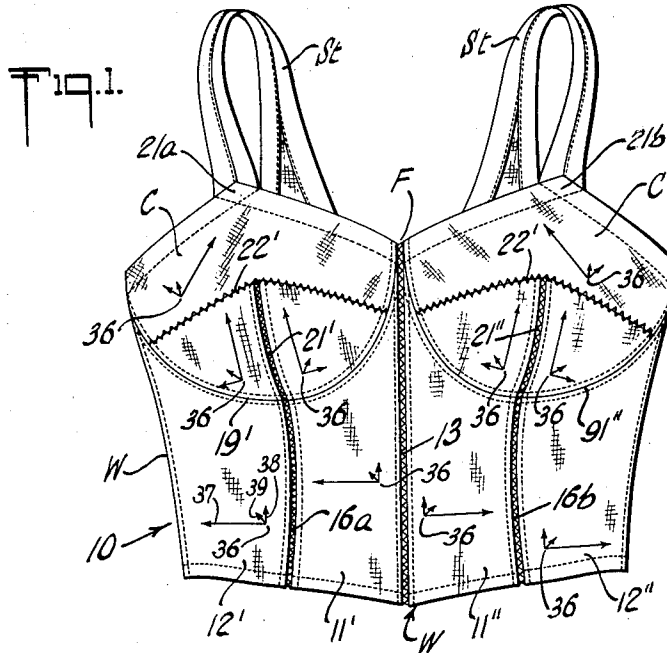
A. GOLDSTEIN

2,884,927

GARMENT

Filed Feb. 18, 1957

4 Sheets-Sheet 1



INVENTOR
ARTHUR GOLDSTEIN
BY
J. J. Bessiehet
his ATTORNEY

May 5, 1959

A. GOLDSTEIN

2,884,927

GARMENT

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Fig. 3.

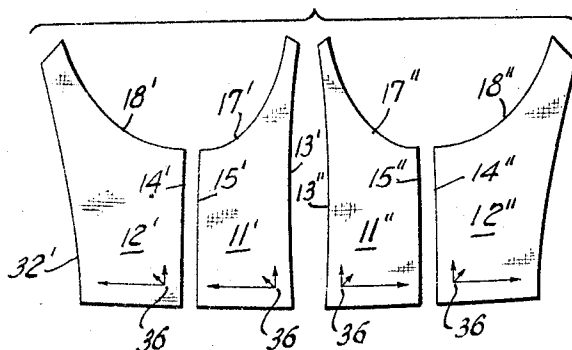


Fig. 5.

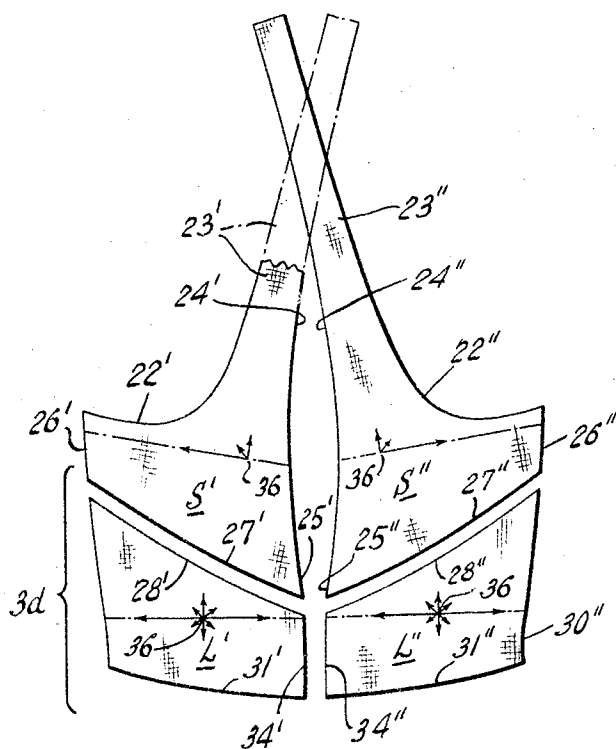
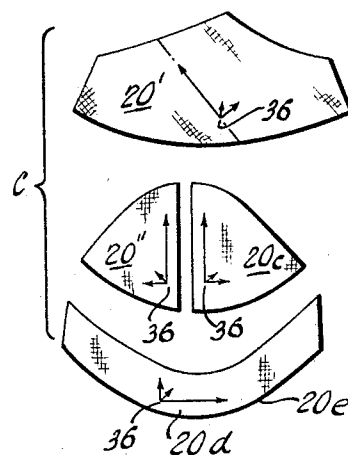


Fig. 4.



INVENTOR
ARTHUR GOLDSTEIN

BY *J. F. Barreches*
his ATTORNEY

May 5, 1959

A. GOLDSTEIN

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Fig. 6

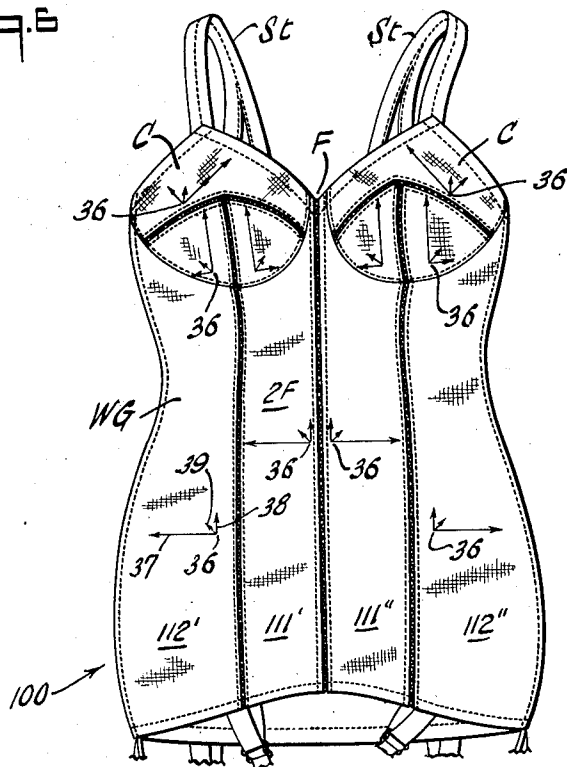
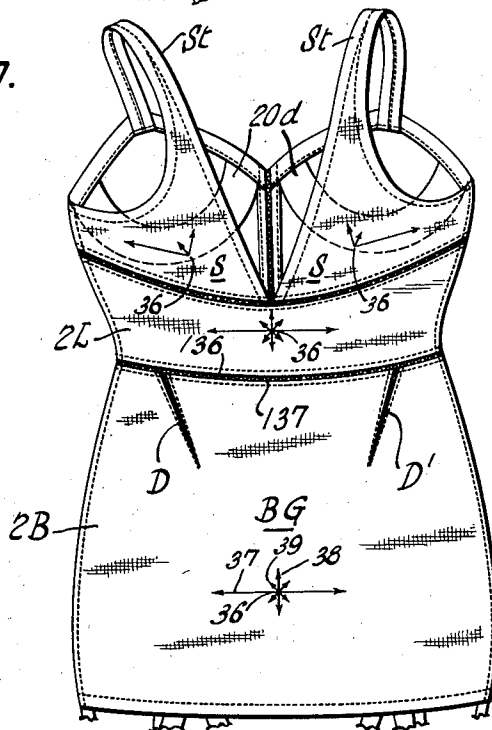


Fig. 7.



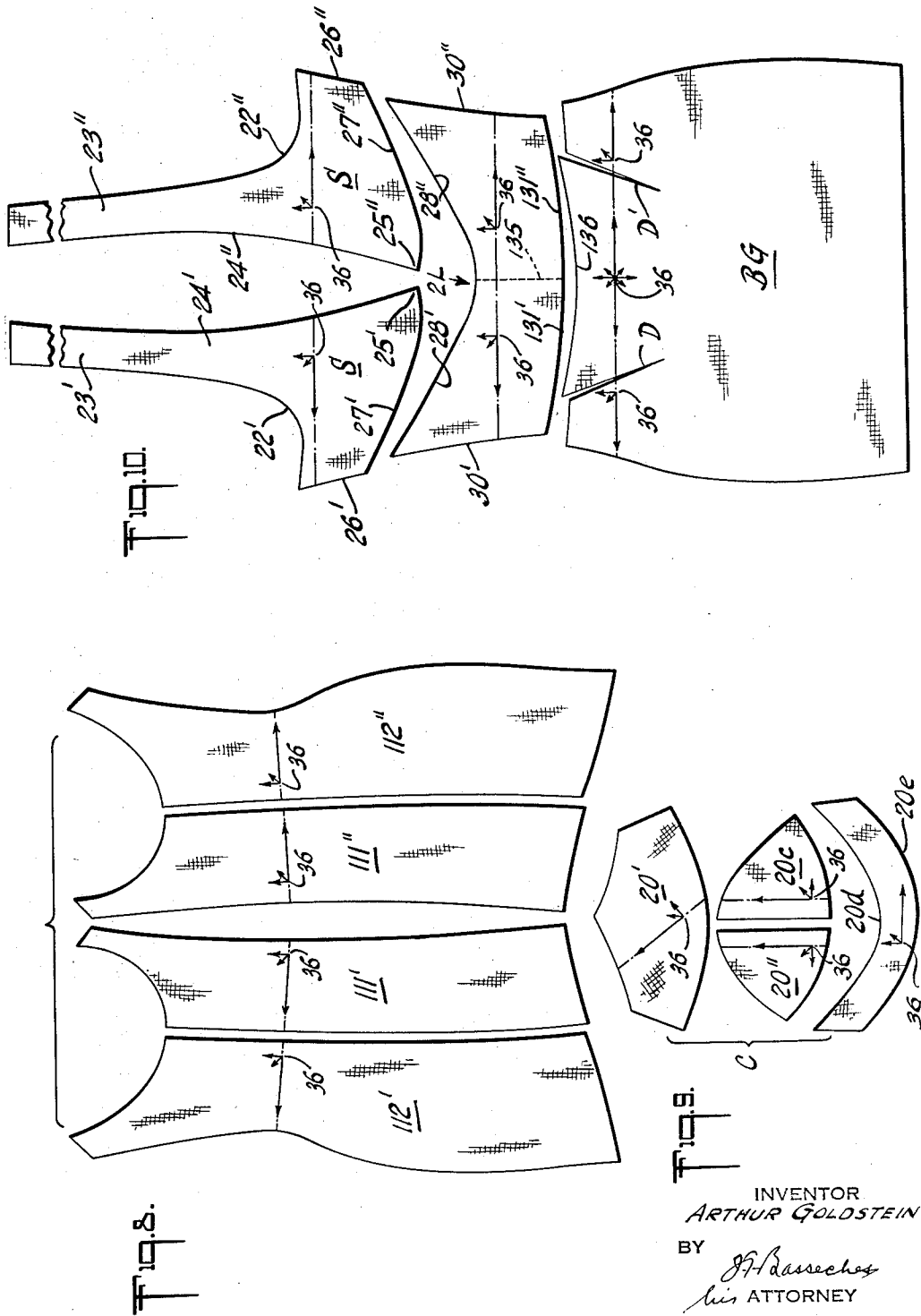
INVENTOR
ARTHUR GOLDSTEIN
BY *J. F. Demers*
his ATTORNEY

2,884,927

GARMENT

Filed Feb. 18, 1957

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2,884,927

GARMENT

Arthur Goldstein, New York, N.Y., assignor to Tru Balance Corsets, Inc., New York, N.Y., a corporation of New York

Application February 18, 1957, Serial No. 640,675

2 Claims. (Cl. 128—451)

This invention relates to elastic garments, more particularly to undergarments, and still more particularly to undergarments including a brassiere assembly.

This invention has for its object the provision of an undergarment of flat elastic woven or warp knit fabric, including a brassiere assembly of the nature worn with décolleté overgarments, which are both comfortable and aesthetic in appearance.

It is known to provide a variety of undergarments, including a brassiere per se or a brassiere containing garment assembly to be worn with décolleté overgarments, and which are held in position by the elastic stress in encircling the bosom while diverting stretchable segments of the garment, particularly at the back portion, to carry out the supporting function while revealing the maximum portion of the shoulders and the back.

The use of elastic bands to effect the elastic stresses in the prior art garments, whether in the form of an overall garment or brassiere alone or as part of a waistline limited assembly, resulted in unsightly flesh overlapping, bulging or spilling at the rim edges of the garment where the contrast between elastic constriction and non-constriction is most pronounced. This embarrassing and uncomfortable condition of the uncovered flesh becomes accentuated by reason of activity of the wearer of the garment, and becomes more pronounced in the course of use. A more abundant use of elastic fabric in the garment or the improvement in the yieldability in knitting or weaving elastic yarns into the fabric has not improved this condition, since the magnitude of elasticity and the degree of distensibility appear heretofore to have been unrelated to the stresses in fashioning a garment for the intended purpose.

Accordingly, it is an object of this invention to provide a brassiere including a supporting assembly therefor, or more specifically, an undergarment including a brassiere made of flat woven or flat warp knit elastic fabric which may be freely worn by the wearer with décolleté garments, with assurance of furnishing comfort, proper support, even during activity, while retaining the aesthetic, form-fitting contour intended by the garment, with localized tension at portions of the underarms and back, tending completely to eliminate at the garment edges a bulging, spilling over or overlap of the flaccid portions of the flesh which the garment does not cover.

Still more particularly, it is an object of this invention to provide a construction for the back assembly of a brassiere, or a garment in which a brassiere is incorporated, as in a foundation garment, employing two way stretch, flat-formed elastic fabric to fashion the back and waistline portions, while extending the direction of the elastic threads to distribute their elastic compressive influence in a form-fitting direction, thereby eliminating objectionable localized underarm and shoulder blade bulges or displacement of the flesh, providing a highly aesthetic appearance, with comfort and simplicity of workmanship.

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To attain these objects and such further objects as may herein or be hereinafter pointed out, reference is made to the accompanying drawings, forming a part hereof, in which—

5 Figure 1 is a front elevational view of a brassiere in accordance with the invention, substantially flattened out; Figure 2 is a rear view thereof;

Figure 3 is a plan view of the blanks for making the front of the brassiere up to the breast cups;

10 Figure 4 is an elevational view showing the blanks entering into the construction of the left breast cup;

Figure 5 is an elevational view of the blanks entering into the construction of the back of the garment shown in Figure 2, and shoulder straps;

15 Figure 6 is a front elevational view of a foundation garment embodying the invention;

Figure 7 is a rear elevational view of the garment shown in Figure 6;

20 Figure 8 is a plan view of the blanks for making the front of the garment shown in Figure 6 up to the breast cups;

Figure 9 is a plan view showing the blank for making the breast cup of a garment in accordance with the embodiment illustrated in Figures 6 and 7;

25 Figure 10 is a plan view of the blanks for making the back of the garment and shoulder straps of the embodiment shown in Figures 6 and 7.

30 Making reference to the drawing, particularly Figures 1 and 2, the invention concerns itself primarily with a brassiere 10 whose front portion F consists of a waistband portion W, breast cups C, C and a back portion B, having shoulder blade portions S, S, joined to the lower back portion L. The shoulder blade covering panel portions S, S are joined to the cups C, C, by straps St, St.

35 Referring now to Figures 3, 4 and 5 which disclose the blanks of which the garment 10 is made, it will be observed that the front F consists of inner central panels 11', 11" and side panels 12', 12". The inner panels 11', 11" have their contiguous edges 13', 13" concavely fashioned and joined to each other to provide the central seam 13 by faggoting or similar stitching.

40 The side panels 12' and 12" have their inner contiguous edges 14' and 14" of similar outline to the edges 15' and 15" of the inner panels 11' and 11", respectively, and are joined to each other to provide seams 16' and 16" by a row of faggoting. Upon formation of the seams 13, 16' and 16", cups C' and C" are affixed along the arcuate edges 17' and 17", 18' and 18" to provide the seams 19' and 19", forming the lower part of the consolidated breast cups made from the pattern blanks 20', 20", 20c, 20d, or the asymmetrical duplicates thereof for the right hand breast cup. The segments 20', 20", 20c, 20d are joined to each other to provide the vertical seams 21' and 21" by faggoting, the seam lines 22' and 22" of zig zag outline being arcuately directed upwardly to fashion the cups C' and C" to give adequate fullness, as will be readily understood, the seams 19' and 19" being downwardly, concavely directed and being of a double needle stitch to affix the blank 20d at the convex edge 20e.

60 All of the blanks just described are made of two way stretch elastic fabric, with the exception of the segment 20d, which is made of indistensible fabric such, for example, as satin overlaid on moleskin, to resist stretch and assure that the arcuate seams 19' and 19" retain the predetermined contour, and forms a redirected retainer.

65 Upon the formation of the cups from the blanks illustrated in Figure 4, or the mirrored image duplicate, there are left corners 21a and 21b to receive the shoulder straps St, St, as will appear as this description proceeds.

70 The back B is made from the blanks illustrated in Figure 5 and constitutes shoulder blade covering panels

S' and S'', of general trapezoidal outline, having an upper armpit outlining opening 22' and 22'', terminating in elongated strips 23' and 23'', which form the left and right shoulder straps St, St, previously described, by edge binding with elastic edging, after edge folding to limit the width to the desired extent, and to prevent unraveling by reason of an unfinished edge. The inner medial edges 24' and 24'' are bowed along their entire length to the apices 25' and 25''. From the apices 25' and 25'' to the side edges 26' and 26'', the edges 27' and 27'' are convexly downwardly directed and conform to the edges 28' and 28'' of the panels L' and L''.

Edges 27', 28' and 27'', 28'' are joined to each other to form the seam 29 by faggoting, leaving exposed the side edges 30' and 30'', and the bottom edges 31' and 31''. Combined edges 36', 30', 36'' and 30'' are joined to the side edges 32' and 32'' of the front assembly F and joined to each other to form the seams 33' and 33''. Edges 34' and 34'' may be joined to each other by some complementary separable fasteners, such as hooks and eyes, glove fasteners, zippers, where it is found desirable to make the lower back panel of separable portions, to facilitate positioning of the garment.

It will likewise be understood that the edges 34' and 34'' to form the closure seam 35 may include strips known in the art, carrying rows of mating hooks and eyes, in order to secure a certain degree of variable sizing at the waistline.

In all of the arrangements indicated, with the exception of the seam lines 19' and 19'', it is preferred to use yieldable stitching, such as elastic zig zag stitching or faggoting, as previously described. In each of the blanks, with the exception of the portion 20d, it is part of the invention to utilize flat, two way stretch elastic fabric. The direction of the elastic threads is indicated by the diagrammatic extensibility vectors 36, the component 37 of which being in the direction of the elastic warp threads, the component 38 being at right angles thereto, and the component 39 in the bias direction with respect to the components 37 and 38.

It will be understood that in accordance with the preferred construction, shoulder blade covering panels S' and S'' are related to the lower back panels L' and L'' so that the primary elasticity of the first panels extends angularly upwardly from the medial portion of the back and that the primary elasticity in the lower back panels L' and L'' diverges from the shoulder blade covering panels. Specifically, the shoulder blade panels S, S have the primary elasticity extending upwardly from the medial portion of the back to the side edges at an angle of from 30° to 60° to the horizontal. The lower back panels have the primary elasticity diverging from the medial line at the back panels at an angle of from 0° to minus 15° to the horizontal; that is, the primary elasticity in the lower back covering assembly may extend from 0° to 15° below the horizontal.

Dimensionally, a change in size is made with the change in size of the wearer but within limits to allow an expansion of about 10% to 15% from the quiescent condition of the flat fabric to the expanded condition when enveloping the wearer. The over-all elasticity in the directions as described molds the body of the wearer with comfort and distributes the elastic stresses along the surface, in addition to assuming a form-fitting contour so that there is no lateral displacement of the breast molding cups and support is assured, thereby permitting the wearing of décolleté garments without the objectionable bulging, overlapping or spilling over of the flesh at the edges of the garment.

While it is shown and described to make the entire brassiere of flat elastic two way stretch fabric, it will be understood that, in a measure, the desirable attributes of the back assembly may be employed with brassieres in which the front panels are of relatively indistensible fabric or like components, as well as other combinations

which will now be considered in connection with a garment in which a brassiere forms a part, as will be apparent from the description of the embodiment shown in Figures 6 to 10.

In Figures 6 and 7 the invention is exemplified in the form of a foundation garment or "all-in-one" or combination brassiere and girdle 100 in which the front 2F consists of a brassiere and a waist and girdle portion WG having breast cups C, C, as in the first embodiment, and a back 2B having shoulder blade portions S, S, joined to a lower back portion 2L, below which there is the girdle back portion BG. The blanks for the formation of the assembled foundation garment shown in Figures 6 and 7 are illustrated in Figures 8 to 10, it being believed sufficient to point out that panels 111' and 111'' correspond to the panels 11', 11'' of the first embodiment, except that the lower edges are extended to project below the waistline and to encompass the thigh portions. Likewise, panels 112' and 112'', except for being correlated to the length of the garment, correspond to panels 12' and 12''.

The blanks for forming the back of the garment 2B, except for the panel BG, are identical with the blanks shown in Figure 5. It is to be noted that the blank BG is provided with symmetrically positioned darts defining cuts D, D' adjacent the edge 136. The cuts are preferably made so that the contiguous edges are of unequal length and both edges are angularly directed to the waistline, pursuant to the invention described in the application of Robert Perrier, Serial No. 512,473, filed June 1, 1955, entitled Girdle, to carry out, in the foundation garment, some of the features of the aforesaid application of Perrier.

With a blank BG as provided, the edge 136 is joined to the edges 131', 131'' to form the seam 137 along arcuate lines convexly downwardly directed. The lower back panel 2L may, in this construction, be in a single piece but in other respects corresponds to the union of panels L' and L'' shown in Figure 5.

Optionally, the panel 2L may be cut along the dotted line 135, to the ends of which segmented sections may be affixed complementary separable fasteners, such as hooks and eyes, glove fasteners or zippers, more facily to permit stepping into the garment.

In other respects, all of the advantages described in connection with the embodiment illustrated in Figures 1 to 5 are incorporated in the girdle or foundation garment of a length to extend below the waistline, it being understood that the form-fitting features of the hip and thigh covering segments illustrated in Figure 8, coupled with the back hip and thigh covering panel BG shown in Figures 7 and 10, where made of either one way or two way flat elastic fabric, as described, below the waistline, more readily distribute the elastic stresses for maintaining the back of the garment in flesh supporting position, to carry out the features, permitting the wearing of deep décolletage without the bulging or overlapping, as indicated in connection with the embodiment illustrated in Figures 1 to 5.

While I have described and illustrated as the preferred material a flat warp knit elastic fabric or a woven two way stretch elastic fabric, it will be understood that knitted elastic material known as Kidde or Raschel power net may be employed, and that the gauge of elastic may be varied in accordance with the elastic construction and weight of the garment which may be desired.

Having thus described the invention and illustrated its use, what is claimed as new and is desired to be secured by Letters Patent is—

1. An elastic fabric back assembly for a garment including a brassiere cup portion comprising spaced shoulder blade covering portions and a lower back covering panel assembly, each panel assembly comprising two way stretch, flat warp knit elastic fabric having dissimilar elasticity provided by elastic threads defining the primary

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distensibility, the shoulder blade covering panels each extending from adjacent the medial portion of the back covering assembly to and along the armpit outlining opening portions and being joined to the back covering assembly at its lower edge, the elastic threads in the panels diverging from each other from the medial portion of the back assembly, the lower back covering panel assembly being joined to the shoulder blade panels along a seam which is arcuate and concavely upwardly directed, the direction of the primary elasticity of the first panels extending angularly upwardly from the medial portion of the back portion assembly at about an angle of from 30° to 60° to the horizontal, the direction of the primary elasticity in the lower back covering assembly diverging from the medial line at an angle from 0° to minus 15° to the horizontal.

2. A brassiere garment having cups defining the brassiere front assembly and having a back assembly comprising spaced shoulder blade covering panels, the upper edges of which each define an underarm contouring edge terminating adjacent the brassiere portion and arcuately concavely upwardly directed bottom edges, a lower back covering panel assembly, the lower edge of which follows the waistline outlining portion, the upper edge of which is joined to the bottom edges of said shoulder blade covering panels by a seam line which is arcuately

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concavely upwardly directed around the lower back covering assembly to extend on each side to the brassiere front assembly, the shoulder blade covering panels and lower back covering panel assembly being each composed of two way stretch, flat elastic fabric having the primary elasticity provided by elastic threads, the elastic threads in the shoulder blade covering panels being directed substantially in parallelism to the underarm contouring edge, and at an angle within a range of about 30° to 60° to the horizontal and the elastic threads in the lower back covering panel being divergent to the direction of the threads in said first panels from the medial portion to the sides.

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