

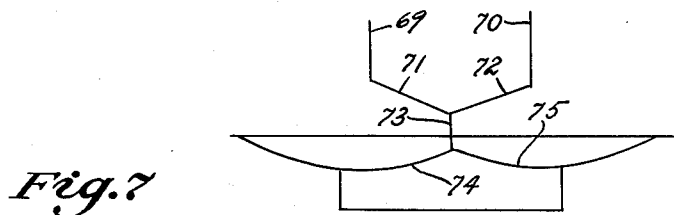
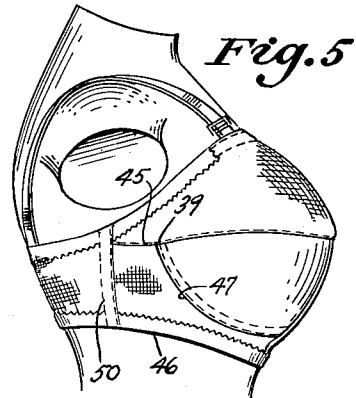
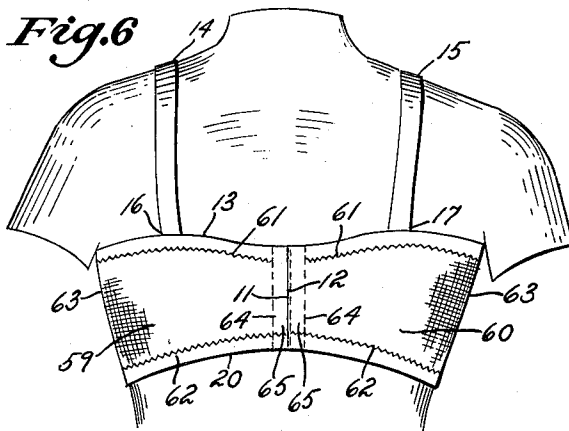
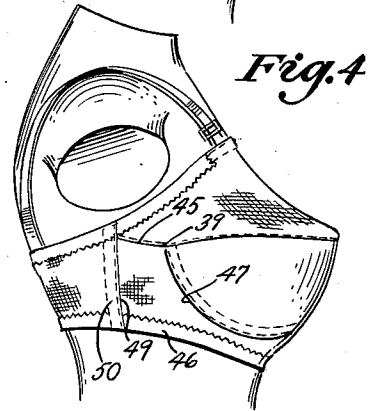
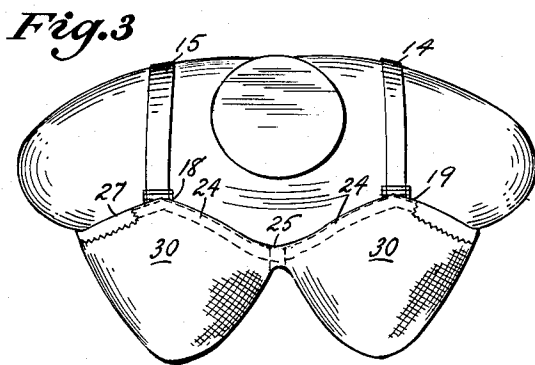
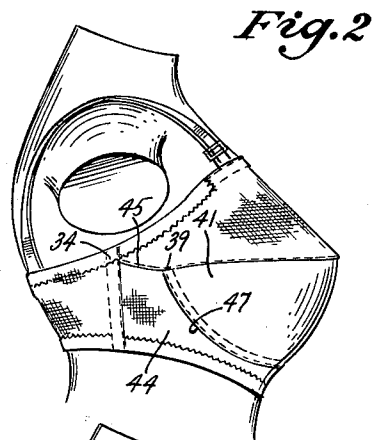
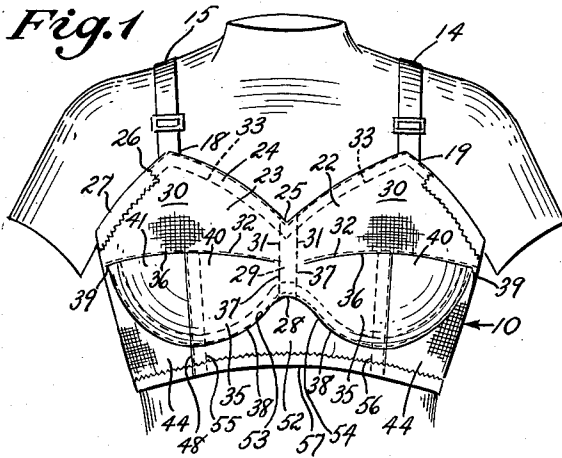
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3,203,423

CONFORMAL BRASSIERE CONSTRUCTION

Filed Dec. 17, 1963



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CONFORMAL BRASSIERE CONSTRUCTION

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This invention relates generally to the field of figure control garments, and more particularly to an improved brassiere especially adapted for adjusting the contour of the bust cups in conformance with individual bust shapes.

While it is known in the art to manufacture brassieres in a variety of bust measurements and cup sizes, prior art constructions have made no provision for variance in individual bust shape. Where, for example, the bust is scant in the upper portion thereof, or if the same is soft and pendulous, the upper part of the brassiere cup is not filled, causing wrinkling. On the other hand, where the bust is large, again assuming a given cup size, there is sometimes not enough room in the cup to accommodate it, and the frame of the cup then rests on bust flesh, and the fit of the brassiere is destroyed.

Another problem area in conventional brassieres is located from the shoulder strap to the underarm. In many constructions, a gap will be formed in this location which is unsightly, and requires additional adjustment, while in other cases the brassiere is too tight, causing bulging flesh, discomfort, and tensions which are dangerous to health.

It is therefore among the principal objects of the present invention to provide an improved brassiere construction in which the above-mentioned disadvantages have been substantially eliminated.

Another object of the invention lies in the provision of an improved brassiere construction in which the upper portion of the bust cups are formed of elastic material, and which are used in conjunction with non-elastic straps, whereby the overall size of the cup may be altered at the upper portion thereof to accommodate for different bust shapes, as distinguished from bust cup size.

Still another object of the invention lies in the provision of an improved inelastic front panel construction which will achieve effective separation of the busts without appreciable loss of comfort to the wearer.

Yet another object of the invention lies in the provision of an improved brassiere construction in which the upper portion of the bust cups terminate at a more rearward location than the lower portions thereof, permitting the device to mold itself upon the body of the wearer while providing adequate support thereto.

A feature of the invention lies in the provision of elastic areas disposed outwardly and rearwardly of the lower portion of the bust cups, in conjunction with rigid panel elements interconnected to the inner portion of the lower part of the bust cups, wherein expansion of the device will occur in areas which will not prevent effective separation.

Another feature of the invention lies in the provision of boning only in those areas which will cause no discomfort to the wearer.

These objects and features, as well as other incidental ends and advantages, will more fully appear in the progress of the following disclosure, and be pointed out in the appended claims.

In the drawing, to which reference will be made in the specification, similar reference characters have been employed to designate corresponding parts throughout the several views.

FIGURE 1 is a front elevational view of an embodiment of the invention.

FIGURE 2 is a side elevational view thereof.

FIGURE 3 is a plan view thereof.

FIGURES 4 and 5 are schematic side elevational views showing the adaption of the device to different bust shapes.

FIGURE 6 is a rear elevational view of the embodiment.

FIGURE 7 is a vector diagram showing application of forces in supporting the bust of a wearer.

In accordance with the invention, the device, generally indicated by reference character 10, comprises an encircling band having interconnecting rear edges 11 and 12. The device is bounded by a continuous upper edge 13 having first and second strap members 14 and 15 interconnected thereto at four points of interconnection 16, 17, 18, and 19. A continuous lower edge 20 extends between the rear edges 11 and 12, the distance between the edge 20 and the upper edge 13 depending upon the degree of figure control desired.

Referring to FIGURE 1, left and right front panels 22 and 23 are generally similar and symmetrical, each being bounded by a facing 24 of relatively inelastic material extending from a central point 25 to a rearwardly extending point 26. Commencing at each of the symmetrical points 26 and extending rearwardly therefrom are elastic segments 27 which continue to the rear edges 11 and 12. Extending downwardly from the point 25 to a point 28 is a central rigid vertically disposed reinforcing member 29.

The upper portions of the bust cups are formed by upper elastic members 30, of material having resiliency in both vertical and horizontal directions. The members 30 are bounded by a centrally disposed vertical edge 31, a lower generally horizontally disposed edge 32, a curved upper edge 33, the edges 32 and 33 meeting at a rearwardly disposed point 34. It will be observed that the point 34 is disposed outwardly and rearwardly of the lower members 35 of the bust cups a distance of several inches.

The lower members 35 of the bust cups are bounded by upper horizontal edges 36, inner vertical edges 37, and lower curved edges 38 extending to rearwardmost points 39. In the preferred construction, better contour and fit is achieved by forming the lower members 35 in inner and outer segments 40 and 41, as is well-known in the art. The member 29 interconnects the upper members 30 and lower members 35, and receives tension during wearing directly from the strap members 14 and 15 through the relatively inelastic portions 24 of the upper edge 13.

Interconnected to each of the upper members 30 and lower members 35 is a lower outer elastic panel 44, bounded by an upper edge 45, a lower edge 46, a curved edge 47, an inner edge 48, and an outer edge 49, which contains a sleeve-enclosed boning member 50 extending between the upper and lower edges 13 and 20, respectively.

Interconnecting the lower members 35 is a centrally disposed lower panel member 52 bounded by upper edges 53 and 54, vertical edges 55 and 56, and a lower upwardly curved edge 57.

Referring to FIGURE 6, extending rearwardly of the boning sleeves 50 are a left rear panel 59 and a right rear panel 60, each bounded by an upper edge 61, a lower edge 62, a forward edge 63, and a rear edge 64. Interconnecting means 65 is preferably in the form of reinforced facings of any suitable well-known type.

Referring to FIGURES 4 and 5, there is illustrated the degree of expansion of the upper members 30 to conform with varying bust shapes. In FIGURE 4, where the upper portion of the bust is relatively scanty, or where the bust is pendulous, the member 30 will contract to minimum tension, but maintain a smooth fit. In such cir-

circumstances, the side elevational view of the upper members 30 will assume a slight concave appearance, excessive concavity being prevented by the action of the strap members 14 and 15 which provide a degree of vertical tension.

By contrast, as may be seen in FIGURE 5, where the upper portion of the bust is of relatively full contour, the upper members 30 readily expand in a horizontal direction to accommodate this fullness, and again the bust is adequately supported by the tension of the relatively inelastic strap members 14 and 15.

Reference is now made to FIGURE 7, where there is illustrated a vector diagram showing the lines of action of the supporting forces provided by the strap elements. It will be observed that the vertical lines of force 69 and 70 provided by the strap members are resolved along angularly disposed lines 71 and 72 (represented by the relatively inelastic portion 24 of the upper edge 13) into the single vertical force (represented by member 29). All resilient expansion is confined outwardly of the bust cups, and the vertical force in the vector 73 is resolved again into angularly disposed vectors 74 and 75 which partially duplicate the forces represented by the vectors 71 and 72. It will be observed that the only resilient expansion possible within the areas defined by the vectors 71-75 is that of the upper members 30, so that the member 29 will tend to lie directly upon the figure of the wearer between the busts, thereby achieving effective separation which is not dependent upon the size or shape of the enclosed busts.

I wish it to be understood that I do not consider the invention limited to the precise details of structure shown and set forth in this specification, for obvious modifications will occur to those skilled in the art to which the invention pertains.

I claim:

1. In a conformal brassiere having a figure-encircling element and a plurality of bust cups, the improvement comprising: each of said cups having upper and lower members, said upper members extending outwardly and rearwardly of the lower members, said lower members being formed of relatively non-extensible textile material, said upper members being formed of elastic material having horizontal and vertical extensibility, said upper members being interconnected by an upper edge facing of resilient extensibility less than that of the horizontal extensibility of said upper members so that all resilient expansion is confined outwardly of the upper members of the bust cups.

2. A structure according to claim 1 wherein the elastic material has greater stretchability in the horizontal direction.

3. A structure according to claim 2 wherein a central rigid vertically disposed reinforcing member extends from said upper edge at a point between the bust cups to a centrally disposed lower panel member.

4. A structure according to claim 3 wherein said upper members have an effective width greater than that of said lower members.

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