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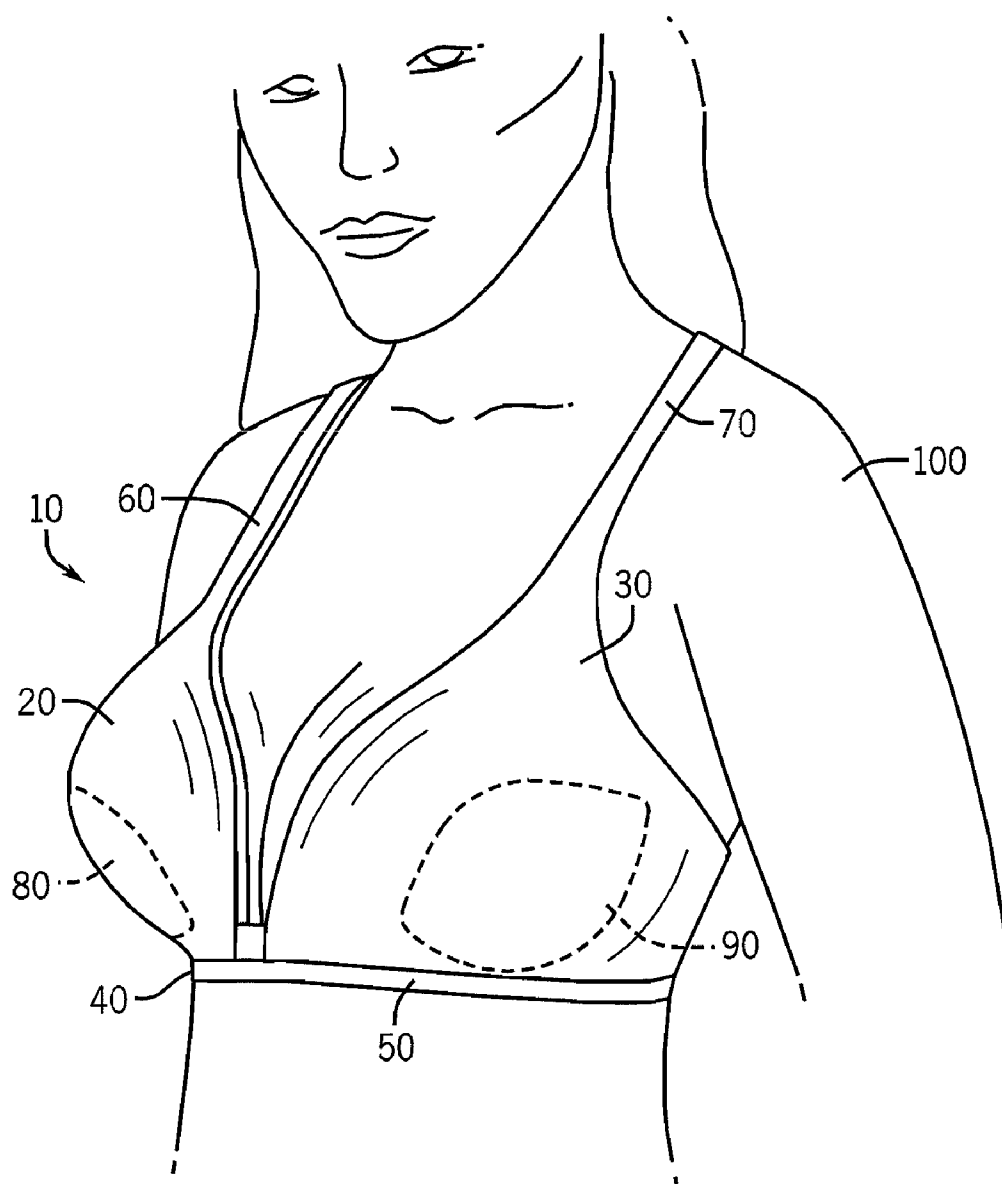
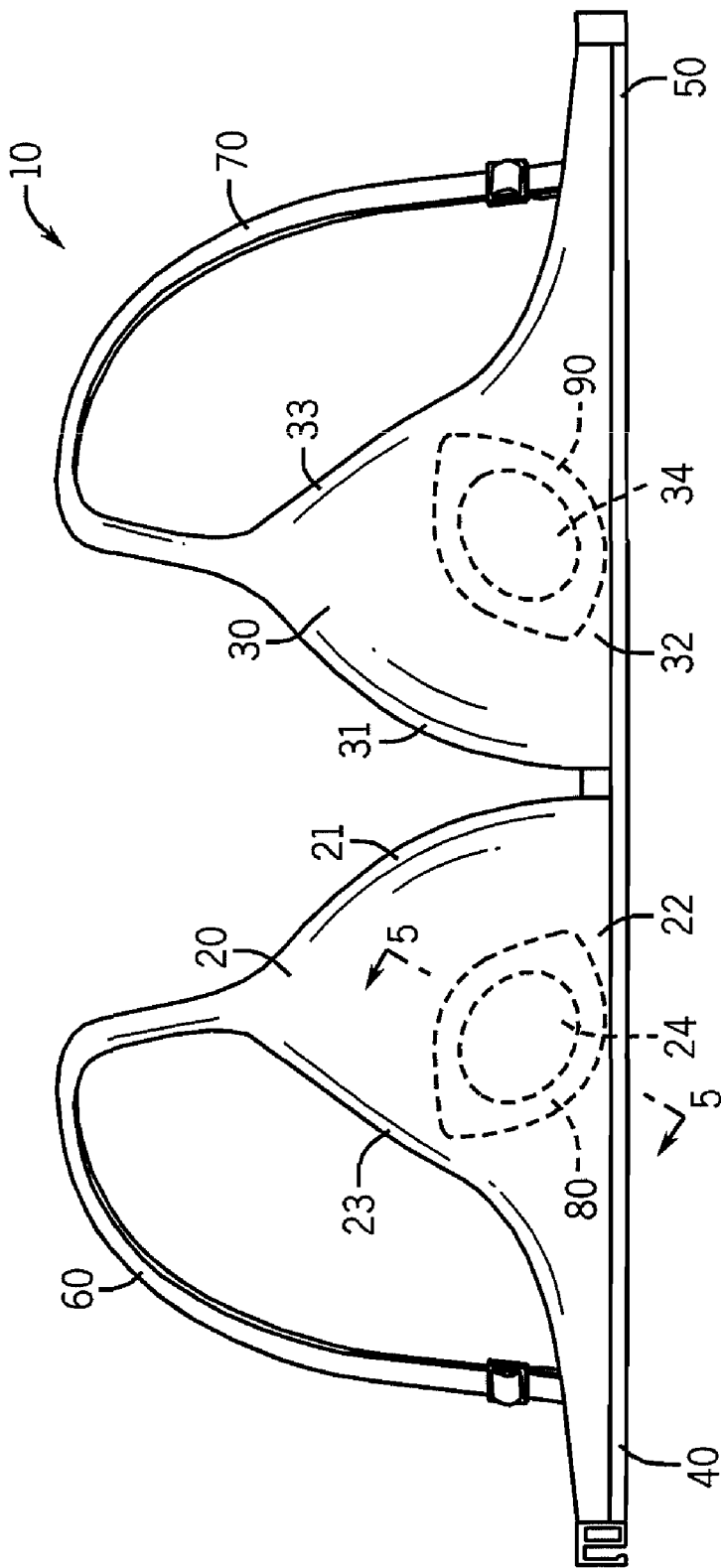
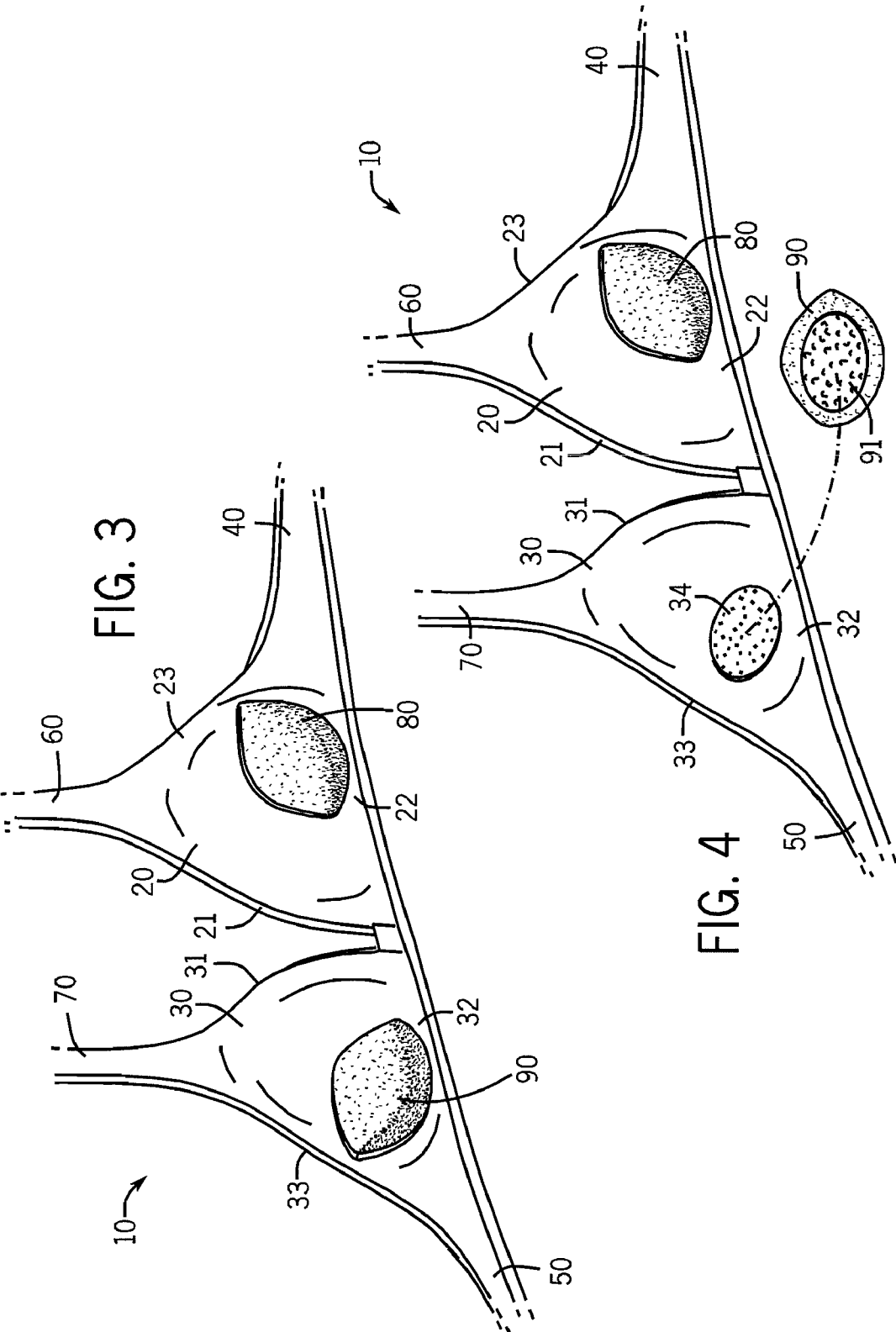


FIG. 1





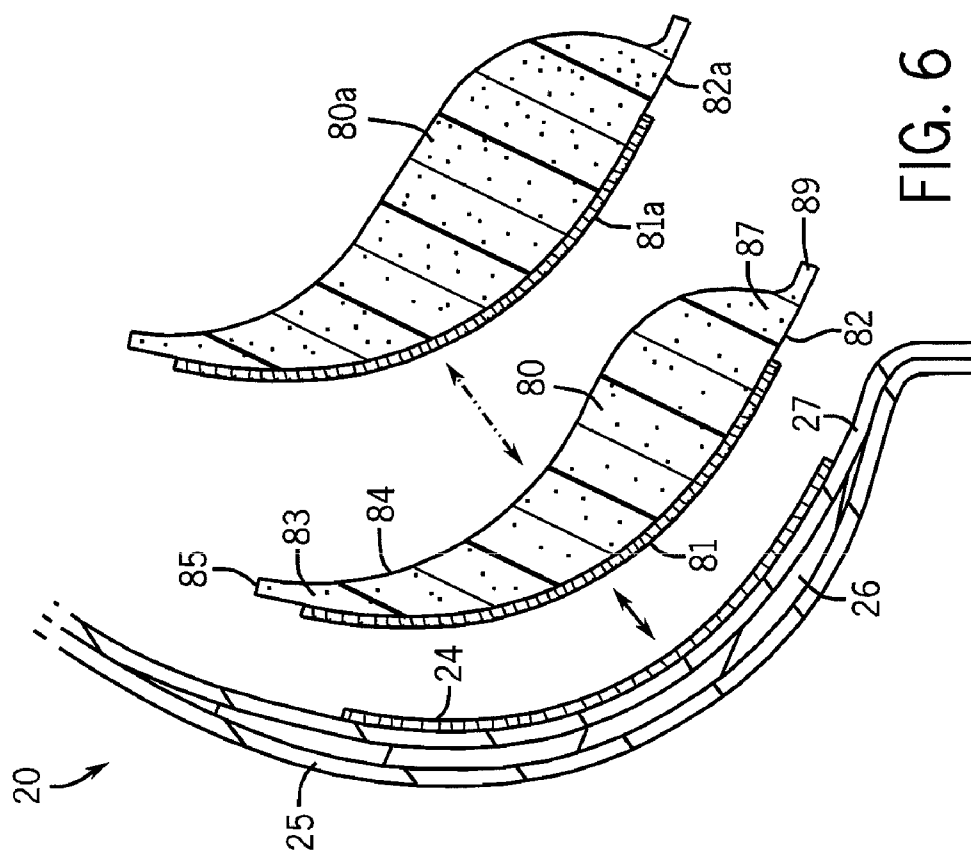


FIG. 5

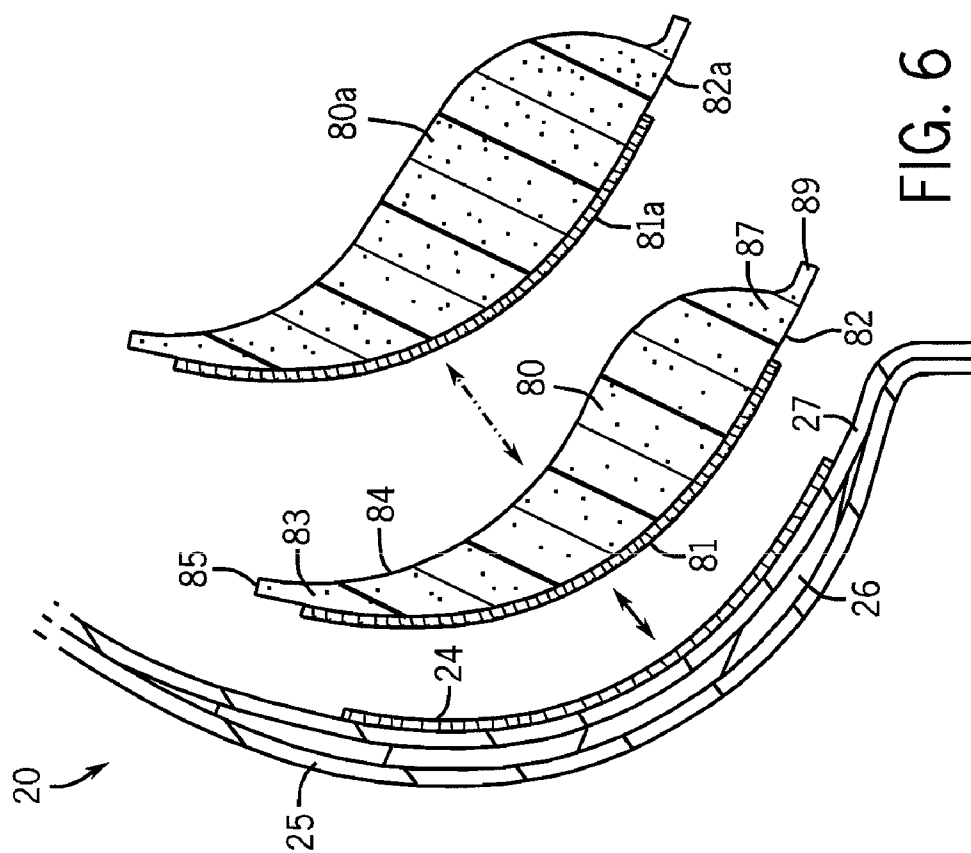


FIG. 6

BRASSIERE AND INSERT

[0001] This application claims the benefit and priority of U.S. Provisional Patent Application No. 61/258,285 filed Nov. 5, 2009.

FIELD OF THE INVENTION

[0002] The present invention relates generally to articles of clothing, including undergarments. More specifically, the present invention relates to a brassiere that has been designed to achieve an enhanced physical appearance of the user's breasts.

BACKGROUND OF THE INVENTION

[0003] For centuries, women have worn a variety of devices to cover, restrain or support their breasts. Beginning in the Victorian age, one such device was the corset. The corset was worn to achieve a then-desirable "hour-glass" figure. One direct effect of wearing a corset was that it also served to push the wearer's breasts upwardly. Beginning in the 19th century, however, the corset began to fall into disfavor due to health problems caused by wearing them. As a result, clothing designers of that day attempted to re-create the effects brought about by wearing a corset, but without actually wearing one. This led to separating the corset into several component parts, including restraining devices for the lower torso and support devices for the upper torso. These components were the forerunners of the modern girdle and brassiere.

[0004] The brassiere, also referred to today simply as the "bra," is an article of clothing that supports the breasts. The bra is still considered an "undergarment," or a "foundation" garment, because of its role in shaping the wearer's figure and elevating the wearer's breasts and because it is typically worn underneath other outer garments. Today, the business of manufacturing and selling bras has become a multi-billion dollar industry. Unfortunately, more emphasis is placed today on bra fashion as opposed to bra functionality.

[0005] Today's bra typically includes several key components. These components include cups for the breasts, a torso band that surrounds the mid-torso and incorporates the cups into the torso band, and shoulder straps. Today's bras are also usually comprised of fabric, typically cotton or polyester, construction. The cups may be reinforced by "under-wires," typically made of metal or rigid plastic. The bra may be a one-piece pull-over device, as in the sports bra, or more usually includes a fastener of some sort along the torso band, either to the back of the bra torso band or to the front of it. Some bra cups contain fixed padding that is integrated into the bra and is designed to enhance the cleavage that is formed between the breasts or to make the breasts appear larger.

[0006] Another method that has been used to enhance the appearance of a user's natural breast size is to use separate structures that are designed to be inserted into the bra cups. Such structures are not integrated into the bra structure itself as discussed above. Rather, such devices include pads that are directly attached to the user's skin using suction cup-type means (as in U.S. Pat. No. 2,289,679 to Porter); pads that are attachable to the user's skin using adhesive (as in U.S. Pat. No. 6,036,577 to Coburn and U.S. Pat. No. 6,758,720 to Chen); and pads that can be inserted into a pocket that is defined with the bra (as in U.S. Pat. No. 7,381,113 to Hori and U.S. Pub. App. 2005/0164602 by Armstrong et al.) This

inventor is also aware of pads that are inserted into the bra, but which are intended to remain in place simply by means of friction between the user's skin and the pad and friction between the pad and the bra fabric.

[0007] The problem with skin-attachable pads is that they can irritate the skin. Pocket-type devices can still move around within the pocket. And pads that are not secured in any fashion tend to move around and, in the experience of this inventor, require almost constant re-adjustment and re-positioning.

[0008] In the view of this inventor, what is needed is a bra that provides a breast enhancing pad that is not adhered directly to the user's skin and that is not movable within the bra or within a bra pocket. What is needed is an insert body that can be securely positioned within the bra, and removably so. Removability is important since it may be desirable for the user, depending upon the particular clothing she is wearing, to alter the appearance of the breast shape and size by altering the size of the insert body as desired or required.

[0009] Accordingly, it is an object of the present invention to provide a bra that provides a bra insert and an insert attachment means. It is also an object to provide such an insert that can be easily removable and replaceable as needed, but which stays in place when attached to the bra. It is a further object to provide such a bra and insert such that the insert can be configured in different sizes to accommodate different appearances of the breasts sought by the user. It is yet another object to provide such a bra and insert that is not heavy and that allows for breathability of the structure. It is still another object to provide such a bra and insert where the bra can be one selected from virtually any type of commercially available bra including, but not limited to, bras with front hook fastener closure means, bras with rear hook fastener closure means, pull-over bras, bras with and without underwire, bras that are strapless, sports bras, specialty bras worn for cosmetic purposes and specialty bras worn for health or medical reasons, or for purely functional purposes.

SUMMARY OF THE INVENTION

[0010] The brassiere and insert of the present invention has obtained these objects. It provides for a brassiere comprising a right and left cup, a right and left torso band and a right and left shoulder strap. Disposed within each cup is a first attachment means. One or more inserts are provided, each insert including an insert body and a second attachment means that is complementary of the first attachment means that is disposed within the bra.

[0011] The foregoing and other features of the bra and insert of the present invention will be apparent from the detailed description that follows.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 is a front and right side perspective view of a brassiere that is constructed in accordance with the present invention and showing the brassiere as it would be intended to be worn; bra inserts are shown in phantom view.

[0013] FIG. 2 is a front elevational view of the brassiere shown in FIG. 1.

[0014] FIG. 3 is a rear, top and right side perspective view of the brassiere shown in FIG. 1 and showing the inserts as attached to the lining of the cups.

[0015] FIG. 4 is a view similar to that of FIG. 3 but showing one of the inserts being detached from the lining of the respective cup.

[0016] FIG. 5 is an enlarged cross-sectioned view of the brassiere and insert taken along line 5-5 of FIG. 2 and showing the insert attached to the lining of the cup.

[0017] FIG. 6 is a view similar to that of FIG. 5 but showing the insert being detached from the lining of the cup and also showing an alternatively-sized brassiere insert.

DETAILED DESCRIPTION

[0018] Referring now to the drawings in detail, wherein like numbered elements refer to like elements throughout, FIGS. 1 through 5 illustrate a representative structure, generally identified 10, which is a preferred embodiment of a brassiere that is fabricated in accordance with the present invention. It should be noted here that, although the figures described in the "Brief Description of the Drawings" section of this Specification are identified in that section from the "right" and "left" perspective of a viewer of the device of the present invention, all references to "right" and "left" will be hereinafter referenced from the perspective of the wearer of the brassiere 10 of the present invention. Additionally, it is to be understood that the terms "brassiere" and "bra" can be, and will be, used interchangeably throughout the balance of this Specification, each term identifying identical structure.

[0019] Referring now specifically to FIG. 1, which illustrates the bra 10 as it would be worn by an individual 100, it will be seen that the bra 10 of the present invention comprises a number of basic components. The bra 10 comprises a right cup 20, a right torso band 40 and a right shoulder strap 60. See also FIG. 2. Disposed symmetrically to the other side of the bra 10 is a left cup 30, a left torso band 50 and a left shoulder strap 70. It is to be understood that, in the bra 10 of the present invention, the right and left cups 20, 30, the right and left torso bands 40, 50, and the right and left shoulder straps 60, 70 are preferably formed as a single piece of material, the underlying structure of which is integrally formed in the fabrication process.

[0020] It should also be understood that alternative embodiments of the bra 10 of the present invention could be similarly fabricated whereby the right torso band 40 and the left torso band 50 are integrally formed and connected together at the back of the bra 10 as shown in FIG. 2, or at the front of it (not shown), without deviating from the scope of the present invention. It is also to be understood that the bra 10 could be one of many types of commercially available bras that are alternatively configured. By way of example, and without limiting the scope of the present invention, the bra 10 could be one with front hook fastener closure means instead of the rear hook fastener closure means as mentioned above. The bra 10 could also be a pull-over bra, a bra with and without underwire, a bra that is strapless, a sports bra, a specialty bra worn for cosmetic purposes or a specialty bra worn for health or medical reasons. All such alternative configurations are contemplated by the present invention.

[0021] Referring now to FIGS. 2, 3 and 4, it will be seen that the right cup 20 of the bra 10 includes a lower cup portion 22, an inner edge 21 and an outer edge 23. Similarly, the left cup 30 includes a lower cup portion 32, an inner edge 31 and an outer edge 33. Disposed within the lower cup portion 22, 32 of each cup 20, 30, respectively, is a cup attachment member 24, 34. The cup attachment members 24, 34 are located toward the outer edge 21, 31 and away from the inner edge 23,

33 of the respective cup 20, 30. The purpose of this location will be apparent later in this detailed description.

[0022] As shown in FIG. 5, the right cup 20 typically includes a layered structure. That is, the right cup 20 has an outer layer 25, an inner layer 27 and a layer 26 disposed between the inner and outer layers 25, 27, respectively. This particular structure is not, however, a limitation of the present invention. For example, the cup 20 could include a single fabric layer (not shown). Secured to the inner layer 27 in the bra 10 of the preferred embodiment, is the cup attachment member 24. The cup attachment member 24 is one layer of a woven, molded or extruded synthetic material having a surface of hooks and another layer of woven synthetic material having a surface of loops (i.e. "hook and loop" style fasteners of the type that are marketed and sold under the name VELCRO®, a registered mark of Velcro Industries B.V.). It makes no difference which layer is used as long as the layers are complementary to other structure, as will be apparent later in this detailed description. As shown, the cup attachment member 24 is preferably permanently secured to the bra cup 20. The cup attachment member 24 is also preferably a flat oval-shaped structure, but need not be. It is also within the scope of the present invention that the cup attachment member 24 be perforated to allow for air flow through it. It is also within the scope of the present invention that the cup attachment member 24 is made of a plurality of smaller members (not shown) that form the same general shape.

[0023] Referring again specifically to FIGS. 3 and 4, it will be seen that an insert 80 is provided for the right cup 20 and an insert 90 is provided for the left cup 30. Each insert comprises an insert body 80, 90 which comprises a similarly-shaped structure. When viewed straight on, the shape of each insert body 80, 90 is that of a prolate spheroid or, more accurately, a vesica piscis which is the shape formed by the intersection of two circles with the same radius, intersecting in such a way that the center of each circle lies on the circumference of the other. When viewed from another perspective, however, the insert bodies 80, 90 are not symmetrically shaped in any other regard.

[0024] Referring now to FIGS. 5 and 6, it will be seen that the right insert body 80 has an outer surface 82 and an inner surface 84. The outer surface 82 has secured to it an insert attachment member 81 comprising one layer of a woven, molded or extruded synthetic material having a surface of hooks and another layer of woven synthetic material having a surface of loops (again, the "hook and loop" style fasteners of the type that are marketed and sold under the name VELCRO®, a registered mark of Velcro Industries B.V.). It makes no difference which layer is used as long as the layers are complementary to other structure, as mentioned earlier in this detailed description. As shown, the insert attachment member 81 is permanently secured to the insert body 80. Also, the insert attachment member 81 could be perforated to allow for air flow through it. It is also within the scope of the present invention that the insert attachment member 81 is made of a plurality of smaller members (not shown) that form the same general shape.

[0025] The inner surface 84 of the insert body 80 defines a surface that lies immediately below the user's breast (not shown). Preferably, the insert body 80 is formed or fabricated of a low-density polyurethane foam or polyester fiberfill with sufficient rigidity to maintain shape under the weight of the user's breast. It will also be seen that the insert body 80 has a top portion 83 and a top edge 85. It also has a bottom portion

87 and a bottom edge **89**. The cross-sectional profile of the insert body **80** is such that the bottom portion **87** is somewhat thicker than that of the top portion **83**, the profile being tapered and outwardly curved to form an inverted comma-shaped profile. In this fashion, the profile of the insert body **80** allows for more elevation of the breast from below and less elevation towards the center of the cup **20**. Since the insert body **80** is secured, removably, at an angle relative to the horizontal, the insert body **80** also allows the user's breast to be urged inwardly and towards the other breast to enhance the user's cleavage.

[0026] As shown in FIG. 6, the insert body **80** can be removed and replaced with a second insert body **80a**, the second insert body **80a** being dimensioned slightly larger than the insert body **80**. The second insert body **80a** is likewise attachable to the cup attachment member **24** by means of the complementary insert attachment member **81a** that is attached to the outer surface **82a** of the second insert body **80a**. Additional insert bodies (not shown) may also be like configured for alternative use with the bra **10** in accordance with the present invention.

[0027] In view of the foregoing, it will be apparent that there has been provided a new, useful and non-obvious bra, bra insert and bra insert attachment means. The insert can be easily removable and replaceable as needed and stays in place when attached to the bra. The bra insert can be configured in different sizes to accommodate different appearances of the breasts sought by the user. Further, the bra insert is not heavy and allows for breathability of the structure.

The details of the invention having been disclosed in accordance with the foregoing, I claim:

1. A brassiere comprising:
 - a right and left cup, each cup being configured to support a user's breast therein;
 - a right and left torso band;
 - a right and left shoulder strap;
 - a cup attachment means disposed within each cup;
 - an insert comprising an insert body having an outer surface; and
 - an insert attachment means, the insert attachment means being secured to the outer surface of the insert body and the insert attachment means being complementary to the cup attachment means;
 wherein the user's cleavage between the breasts is enhanced when the brassiere and insert are worn by the user.
2. The brassiere of claim 1 wherein the cup attachment means comprises a cup attachment member and wherein the insert attachment means comprises a complementary insert attachment member.
3. The brassiere of claim 2 wherein each cup further comprises a lower cup portion, an inner edge and an outer edge and wherein the cup attachment member is disposed within the lower cup portion at a point toward the outer edge and away from the inner edge of each brassiere cup.
4. The brassiere of claim 3 wherein the cup attachment member comprises a flat oval-shaped structure.
5. The brassiere of claim 4 wherein the insert body comprises a prolate spheroid-shaped, or visica piscus-shaped, structure.
6. The brassiere of claim 5 wherein the insert body further comprises a top portion and a bottom portion and wherein the cross-sectional profile of the insert body is such that the

bottom portion is thicker than the top portion, the profile being tapered and outwardly curved to form an inverted comma-shaped profile wherein the profile allows for more elevation of the user's breast at the lower cup portion and less elevation above the lower cup portion.

7. The brassiere of claim 6 wherein the insert body is secured at an angle relative to the horizontal wherein each breast is urged inwardly and toward the other.

8. The brassiere of claim 1 wherein the insert body is formed of a low-density polyurethane foam or polyester fiberfill.

9. The brassiere of claim 2 wherein the insert attachment member is permanently secured to the insert.

10. The brassiere of claim 2 wherein the insert attachment member is perforated to allow air flow through it.

11. The brassiere of claim 2 wherein the insert attachment member is comprised of a plurality of smaller members.

12. An insert for use with a brassiere cup, the cup being configured to support a user's breast therein, the insert comprising:

- an insert body having an outer surface; and
 - an insert attachment means, the insert attachment means being secured to the outer surface of the insert body;
- wherein the brassiere cup comprises an attachment means disposed within the cup and the insert attachment means is complementary to the cup attachment means.

13. The brassiere insert of claim 12 wherein the insert attachment means comprises an insert attachment member and wherein the cup attachment means comprises a complementary cup attachment member.

14. The brassiere insert of claim 13 the cup further comprises a lower cup portion, an inner edge and an outer edge and wherein the cup attachment member is disposed within the lower cup portion at a point toward the outer edge and away from the inner edge of each brassiere cup.

15. The brassiere insert of claim 14 wherein the cup attachment member comprises a flat oval-shaped structure.

16. The brassiere insert of claim 15 wherein the insert body comprises a prolate spheroid-shaped, or visica piscus-shaped, structure.

17. The brassiere insert of claim 16 wherein the insert body further comprises a top portion and a bottom portion and wherein the cross-sectional profile of the insert body is such that the bottom portion is thicker than the top portion, the profile being tapered and outwardly curved to form an inverted comma-shaped profile wherein the profile allows for more elevation of the user's breast at the lower cup portion and less elevation above the lower cup portion.

18. The brassiere insert of claim 17 wherein the insert body is secured at an angle relative to the horizontal wherein the user's breast is urged inwardly and toward the user's other breast.

19. The brassiere insert of claim 13 wherein the insert body is formed of a low-density polyurethane foam or polyester fiberfill.

20. The brassiere insert of claim 13 wherein the insert attachment member is permanently secured to the insert.

21. The brassiere insert of claim 13 wherein the insert attachment member is perforated to allow air flow through it.

22. The brassiere insert of claim 13 wherein the insert attachment member is comprised of a plurality of smaller members.