

Nov. 5, 1963

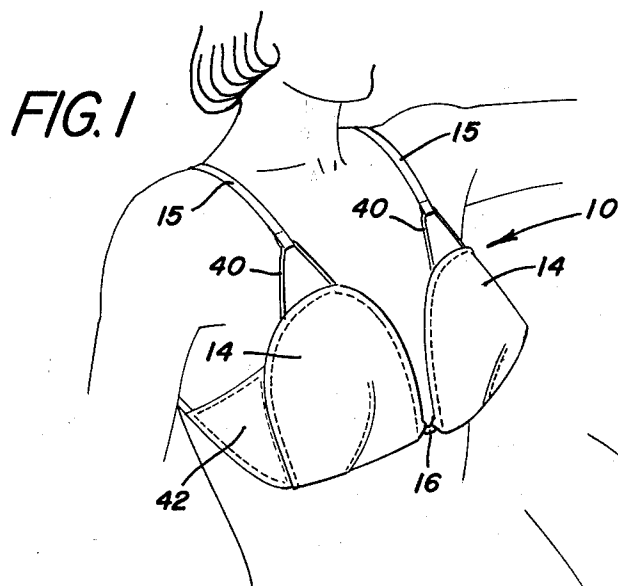
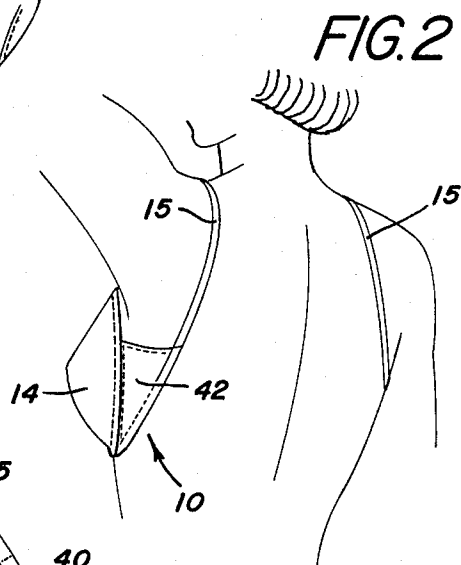
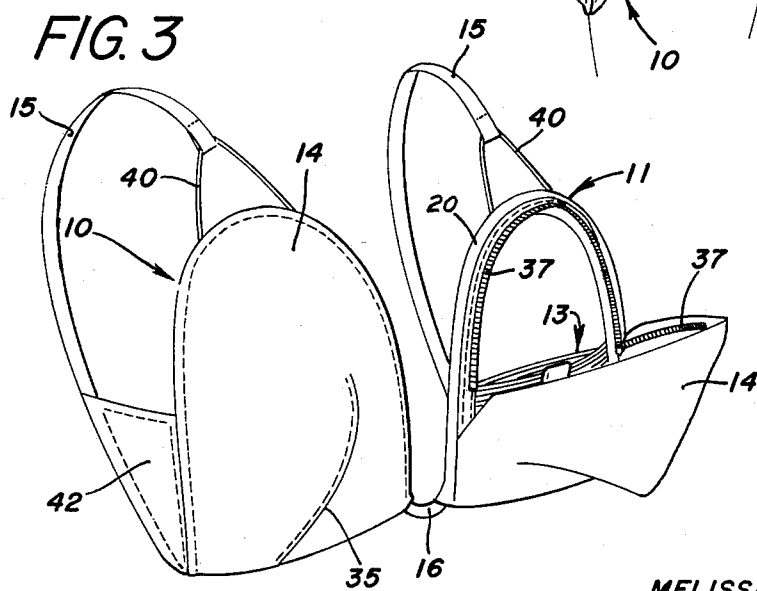
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3,109,431

BRASSIERE

Filed Oct. 4, 1960

2 Sheets-Sheet 1



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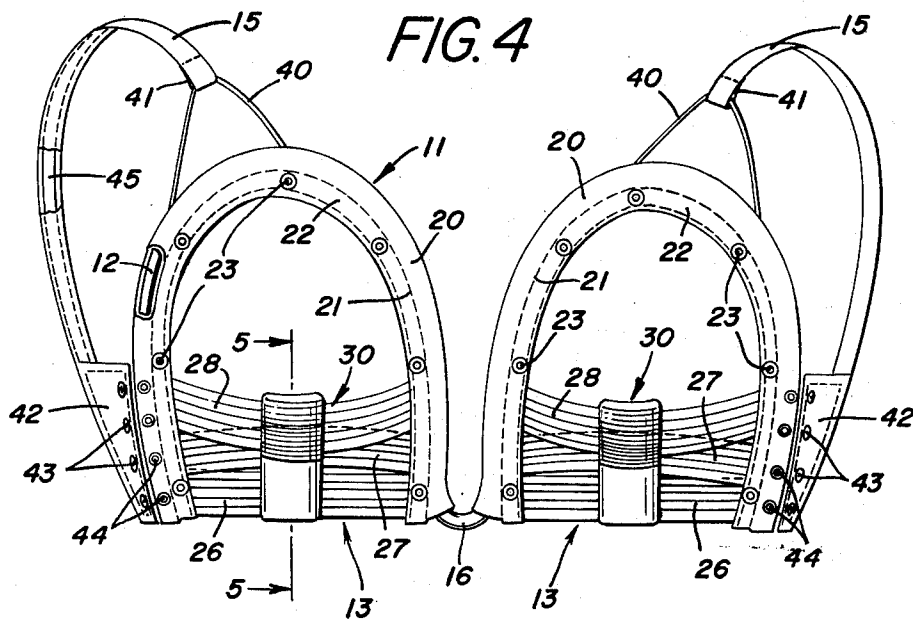
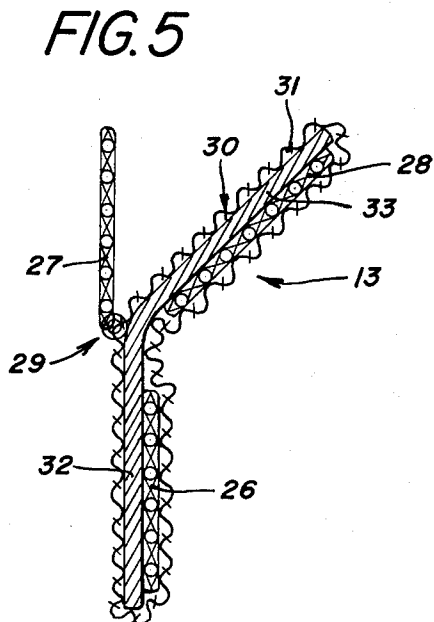
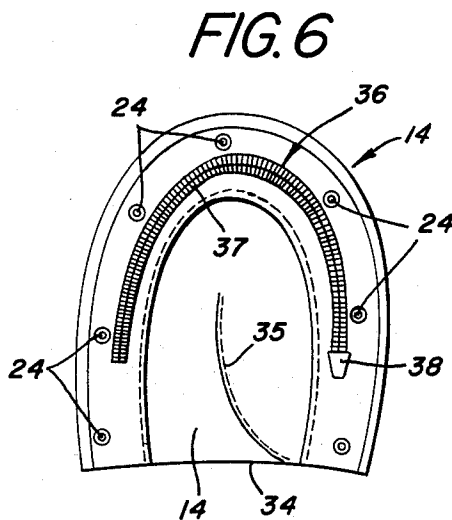
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BRASSIERE

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2 Sheets-Sheet 2



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3,109,431
BRASSIERE

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The present invention relates to brassieres, and its primary object is to provide a new and improved brassiere that is entirely open at the back, and without any of the usual body-encircling bands of elastic or other material. The chief advantage of this arrangement is that it permits wearing a backless dress without exposing any portion of the back of the brassiere. Another important advantage is that it eliminates the binding or constricting of an elastic band extending around the rib cage, with its constant tension that must be overcome each time the wearer inhales.

Another object of the invention is to provide a brassiere embodying a new and improved type of lift that raises and gently supports the breasts from below, giving a high, youthful contour that is desired by all women. An advantageous feature of this new type of lift is that it provides yielding support for the breasts, and thus allows them a certain amount of mobility with body movement, so that the breasts appear to be almost unconstrained, as though the wearer were not wearing a brassiere.

A further object of the invention is to provide a brassiere that is beneficial to the health and physical well-being of the wearer in that it relieves the breast-supporting tissues of the weight of the breast without binding or constricting, and thus prevents breakdown of the delicate breast tissues due to constant pressure or constriction.

Another object is to provide a wired brassiere having removable breast cups and shoulder straps, which can be replaced with other cups and straps to match other lingerie, or as they become worn. A related object is to provide a breast cup which can be separated from its surrounding wire frame across the top thereof to facilitate donning the brassiere by enabling the wearer to reach down inside the cup with the hand in order to lift the breast into the cup and to make whatever adjustments may be necessary to make the cup fit smoothly and comfortably.

Still a further object of the invention is to provide a brassiere that is easy to put on, with no inaccessible hooks or fasteners in the back which require contortions by the wearer to connect them together.

The foregoing and other objects and advantages of the present invention will become apparent to those skilled in the art upon consideration of the following detailed description of the preferred embodiment thereof, reference being had to the accompanying drawings, wherein:

FIGURE 1 is a three-quarter front perspective view of a female bust, shown wearing a brassiere embodying the principles of the invention;

FIGURE 2 is a three-quarter rear view of the same, showing the open back construction;

FIGURE 3 is a perspective view of the brassiere alone, with one cup partly open to facilitate putting it on;

FIGURE 4 is a front elevational view of the brassiere with breast cups removed to show the lifts;

FIGURE 5 is an enlarged fragmentary sectional view through the lift, taken at 5—5 in FIGURE 4; and

FIGURE 6 is an elevational view of one of the breast cups removed from the wire frame, as seen from the inside.

In the drawing, the brassiere of my invention is designated in its entirety by the reference numeral 10, and comprises a front, or body portion 11 of fabric, which extends only across the front and part way around the body of the wearer, as best shown in FIGURES 1 and 2, terminating on each side of the body just below the armpits. Thus, the entire back of the wearer is left substantially exposed. Sewed into the front portion 11 is a wire frame 12. Attached to the front portion 11 are lifts 13, which ex-

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tend across the lower part of the frame and underneath the breast. Cups 14 are detachably secured around their edges to the front portion 11, and shoulder straps 15 are attached to the front portion 11 at the top edge thereof, and at the sides adjacent the bottom edge of the body portion.

The frame 12 may take any of several forms, but is herein illustrated as being bent into the form of two inverted U-shaped sections which are joined together at 16. In this case, the frame 12 surrounds each breast along the sides and across the top, although it is also contemplated that the frame might be constructed to pass under the breasts instead of over. Also the frame might be made of four separate, laterally spaced, generally vertically extending wires, or stays, arranged in pairs on opposite sides of each breast, the four separate wires, or stays, being the equivalent of the vertically disposed portions of the frame 12 shown in FIGURE 4.

Each of the U-shaped sections of the frame 12 is enclosed in a tubular fabric cover 20, which is stitched at 21, leaving an inwardly projecting flange 22. Snap fasteners 23 are secured to the outer surface of the flange 22, and these are engageable by companionate snap fasteners 24 sewed to the inside of the cups 14. Thus, the cups 14 are detachably secured to the tubular fabric cover 20 by means of the snap fasteners 23, 24.

The lifts 13 each consist of a plurality of vertically spaced, generally horizontally extending elastic straps 26, 27 and 28, which are sewn at their ends to the tubular fabric covers 20 adjacent the bottom ends thereof. Each of the lifts 13 also includes a flat, relatively stiff stay 30 of plastic or metal, which is attached to the elastic straps 26, 27, 28 near the mid-points thereof. The stay 30 is enclosed within a fabric cover 31, which is sewn to the elastic straps 26, 27, 28, and the stay is bent to the configuration shown in FIGURE 5 so as to form a vertical portion 32, which is adapted to lie flat against the rib cage, and an outwardly and upwardly inclined portion 33, which bears against the underside of the breast to provide support therefor. The middle strap 27 is attached at 29 along its lower edge to the fabric cover 31, and is adapted to accommodate itself to the underside of the breast, to aid in supporting and moulding it to the desired contour. The stays 30 serve both to hold the elastic straps 26, 27, 28 together, and also to transfer a portion of the weight of the breasts to the rib cage. This latter function results from the fact that the weight of the breasts, bearing downwardly on the outwardly projecting portion 33 of the stay causes the vertical portion 32 to press inwardly against the rib cage. The portion of weight thus transferred to the rib cage is relieved from the shoulder straps 15, and as a consequence the shoulder straps have less tendency to cut into the shoulders.

Each of the cups 14 is of generally elliptical shape, with a more or less straight edge across the bottom thereof. The fabric of the cup is cut and stitched at 35 to give it the generally hemispherical shape required to mould the breast to the desired contour. The cup 14 has an arcuate opening 36 formed generally parallel to the upper edge of the cup, and sewed to the opposite edge of the opening is a slide fastener 37, having a sliding tab 38 which engages the teeth of the fastener. The purpose of the opening 36 and slide fastener 37, 38 is to facilitate putting on the brassiere, as will be explained in more detail presently.

The shoulder straps 15 are preferably attached to the fabric covers 20 at the top edges of the U-shaped sections, by means of elastic bands 40. Each of the elastic bands is sewed at its ends to the fabric cover 20 at two laterally spaced points, and the midsection of the band passes through a loop 41 in the end of the shoulder strap and is freely slidable therethrough. This arrangement, while not essential to the invention, is desirable because it per-

mits an equalized distribution of the pull of the shoulder strap on the upper edge of the brassiere.

At its lower rear end, the shoulder strap 15 is sewed to a generally triangular fabric panel 42 having a plurality of vertically spaced snap fasteners 43 attached to one edge thereof. The snap fasteners 43 engage companionate fasteners 44 on the outer edges of the fabric cover 20 at the lower ends thereof. The shoulder strap 15 terminates closely adjacent the bottom end of the wire frame 12, so that the tension on the strap is applied directly to the lower end of the wire frame, pulling the same snugly against the body. Preferably, although not necessarily, the shoulder straps 15 have stays 45 (see FIGURE 4) sewed into them for a portion of their length, which aids in preventing the straps from sliding off the shoulders.

To put on the brassiere, the wearer places both arms through the shoulder straps 15 and draws the brassiere up into place against the chest. In some cases, all that may be necessary to position the breasts within the cups 14 so that they are properly supported on the lifts 13 is to bend forwardly at the waist with the shoulders bent forwardly, which will allow the brassiere to drop away from the body slightly to position the cups directly below the breasts. When the shoulders are then brought back to their normal position, the brassiere is drawn against the body, and the cups 14 and lifts 13 seat themselves firmly and smoothly against the breasts. Where the breasts are rather large or pendulous, it may be necessary to open the slide fastener 37 on each of the cups 14. The wearer is then enabled to reach down inside the cup with the hand so as to raise the breast into the cup and adjust it to fit comfortably and smoothly in place. The cups 14 and shoulder straps 15 may be changed to match other lingerie, or to replace them when they become worn.

While I have shown and described in considerable detail what I believe to be the preferred form of my invention, it will be understood by those skilled in the art that various changes may be made in the shape and arrangement of the several parts of the brassiere without departing from the broad scope of the claims that follow.

I claim:

1. An open back brassiere extending only across the front and part way around the body of the wearer so as to leave the back substantially exposed, said brassiere comprising a front portion terminating on each side of the body below the armpits of the wearer, a pair of breast cup embodied in said front portion, said front portion also having a pair of laterally spaced, generally vertically extending wire portions on opposite sides of each of said

breast cups, lift means attached to each pair of wire portions and extending horizontally therebetween to cradle the breast of the wearer from the underside thereof, and a pair of shoulder straps, each attached at one end of the bottom edge of said front portion at one terminal end thereof, and at the other end to an upper edge of said front portion adjacent one of said breast cups, said shoulder straps being placed under tension by the weight carried by said breast cups, and said tension of said shoulder straps acting to pull said terminal ends of said front portions rearwardly, thereby holding said front portion firmly against the body of the wearer.

2. An open back brassiere extending only across the front and part way around the body of the wearer so as to leave the back substantially exposed, said brassiere comprising a front portion terminating on each side of the body below the armpits of the wearer, a pair of breast cups embodied in said front portion, said front portion also having a pair of laterally spaced, generally vertically extending wire portions on opposite side of each of said breast cups, elastic straps attached to and extending horizontally between each pair of wire portions to cradle the breast of the wearer from the underside thereof, vertically disposed, flat stays attached to said elastic straps adjacent the midpoints thereof, each of said stays being bent intermediate its ends to form upper and lower portions, said lower portion being disposed to lie flat against the rib cage of the wearer, said upper portion projecting forwardly and being disposed to bear upwardly against the underside of the breast, and a pair of shoulder straps, each attached at one end to the bottom edge of said front portion at one terminal end thereof, and the other end to an upper edge of said front portion adjacent one of said breast cups, said shoulder straps being placed under tension by the weight carried by said breast cups, and said tension of said shoulder straps acting to pull said terminal ends of said front portion rearwardly, thereby holding said front portion firmly against the body of the wearer.

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