

June 2, 1970

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3,514,792

BUST FORM

Filed Sept. 5, 1968

2 Sheets-Sheet 1

Fig. 1.

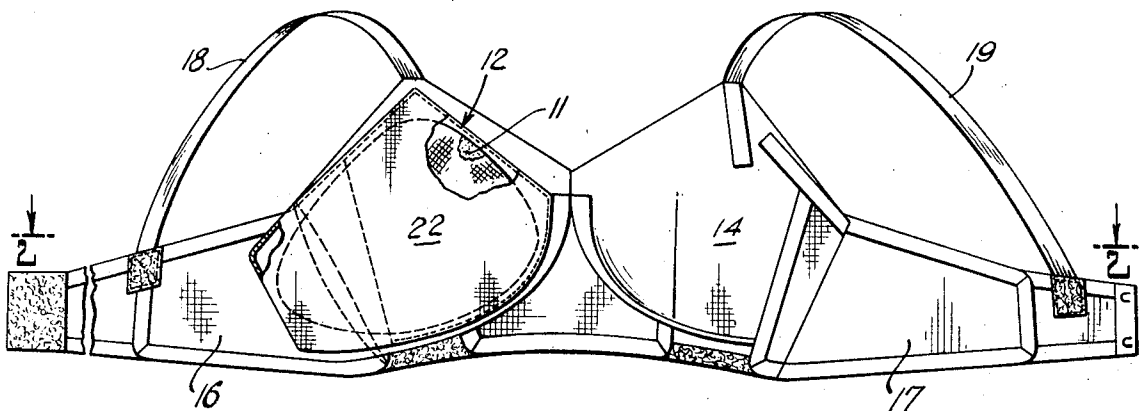


Fig. 2.

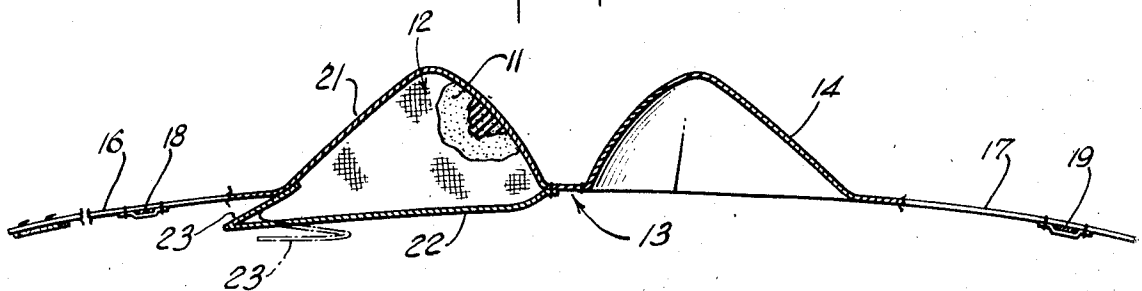
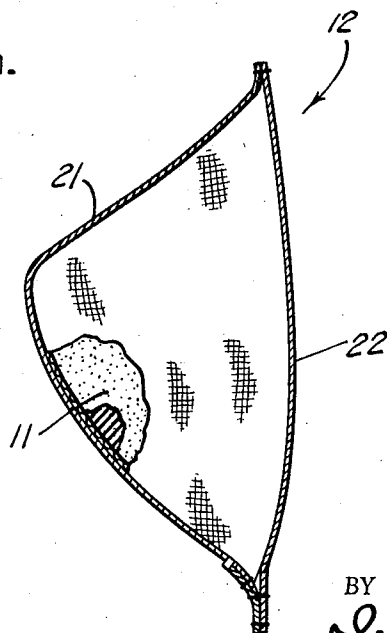


Fig. 3.



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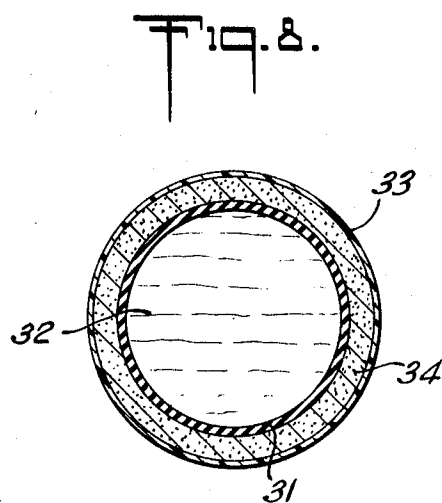
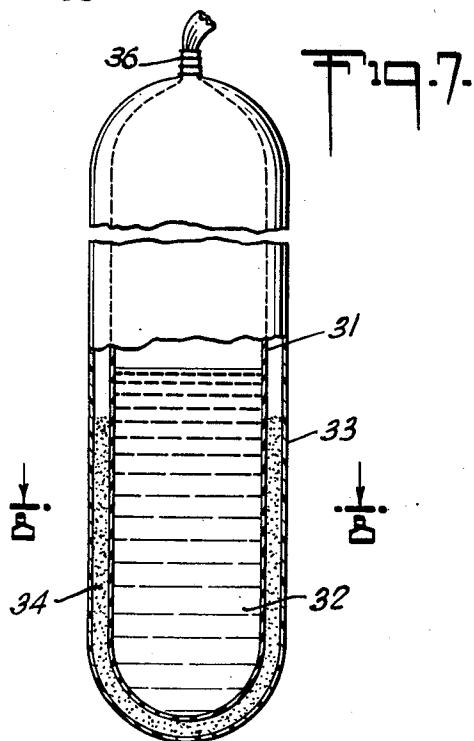
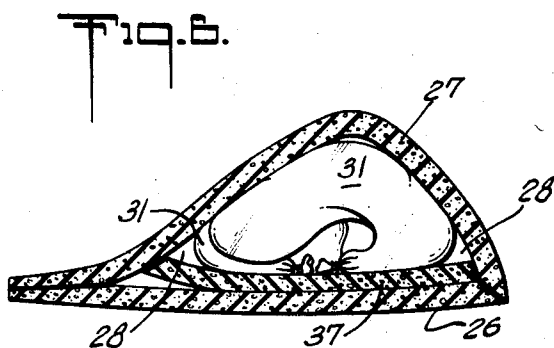
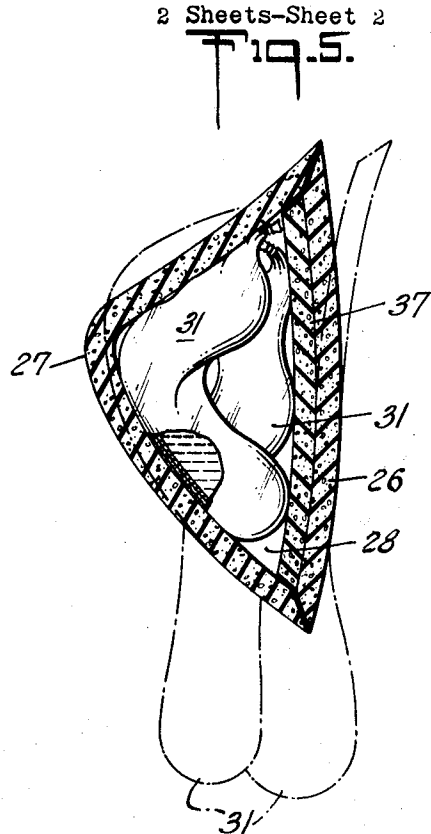
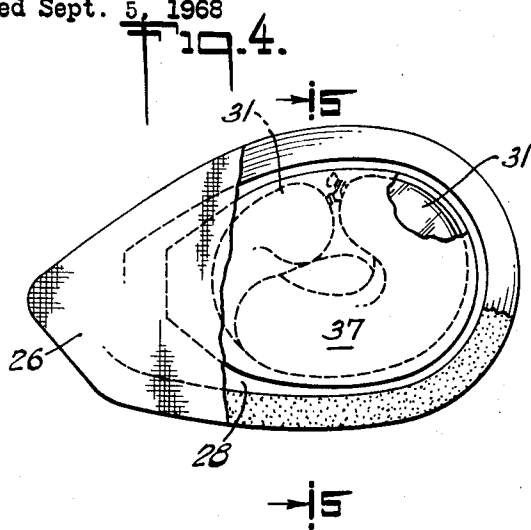
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2 Sheets-Sheet 2



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BUST FORM

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Filed Sept. 5, 1968, Ser. No. 757,731

Int. Cl. A41c 3/10

U.S. Cl. 3—36

8 Claims

ABSTRACT OF THE DISCLOSURE

Artificial female bust form and structure thereof removably positioned in a brassiere or the like for simulating natural bust contour after breast surgery.

BACKGROUND OF THE INVENTION

Field of the invention

This invention relates to artificial bust forms and, more particularly, to an improved artificial body bulge structure for simulating the shape, resilience and yieldability of the natural breast of the female anatomy.

Description of the prior art

An example of the prior art is typified by applicant's previous Pat. 2,636,182, issued Apr. 28, 1953, which disclosed a bulge form member used in the replacement of a woman's breast, that was characterized by the inclusion therein of a quantity of viscous liquid within a breast-shaped casing and which, in some embodiments, comprised a plurality of closed, pliable bags within which the viscous liquid was contained, said bags being in intertwining relationship and being yieldable and shape-conforming in relation to each other.

Although the device described by said patent has been fairly satisfactory in its structure and function, it has been found by experience that various improvements were necessary for a more satisfactory breast simulating device to be used by women after breast surgery.

SUMMARY OF THE INVENTION

The present invention comprises an artificial bulge forming member having a generally breast-shaped and bulge forming casing or housing in the interior of which is disposed a plurality of elongated, pliable elastic bags, each of said bags being suspended at one end thereof near the top portion only of the interior of the casing and said bags being filled with a suitable viscous liquid whereby said bags are yieldably movable relative to each other within said casing and in the aggregate conform generally to the casing which has been pre-shaped in simulation of the natural female breast.

The purpose of suspending each of the bags at or near the upper portion of the interior of the casing is to provide that the viscous liquid be subjected to the force of gravity whereby the natural yieldable pendulousness of the usual mature female breast is simulated. In this manner, it is possible to more closely approximate the contour and nature of the remaining breast of the woman so that a more natural esthetic paired appearance can be achieved.

A further improvement that may be incorporated into the device of the present invention comprises the formation of each of the viscous liquid-containing bags by a pair of axially related outer and inner sheaths of pliable, flexible, and elastic material. Positioned between the outer and inner sheaths is a quantity of finely comminuted material such as talcum powder, polyethylene powder, or other suitable moisture or liquid absorbing materials. These powders serve the purpose of absorbing the viscous liquid contained within the inner sheath

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in the event of an accidental puncture thereof whereby, at least for a preliminary emergency period, leakage of said viscous liquid will be retarded for a considerable extent and for a period of time until the device can be replaced.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front view, some parts being broken away, of a typical brassiere in which one of the breast cups is in the form of a pocket for accommodating the bulge-forming device of the present invention, the latter being shown in dotted outline;

FIG. 2 is a bottom view of the brassiere shown in FIG. 1, the brassiere pocket containing the bulge-forming device being shown in section and partly broken away, while the pocket flap is also shown in dotted outline when retracted;

FIG. 3 is an enlarged vertical section view of the fabric covering of the bulge-forming device with a broken away view of the bulge-forming device therein;

FIG. 4 is a front view of a typical bulge-forming device partly broken away and showing a portion of the interior elements in elevation;

FIG. 5 is a section view taken on line 5—5 of FIG. 1 showing alternative positions of the interior liquid containing bags, both in the confined location and in the freely suspended location prior to assembly within the casing;

FIG. 6 is a horizontal section view at the general median line of the device shown in FIGS. 4 and 5 showing the structure of the casing while the interior bags are shown in elevation;

FIG. 7 is a somewhat enlarged partly broken away diagrammatic view of the embodiment of the viscous liquid-containing bags wherein outer and inner sheaths are included; and

FIG. 8 is a section view taken on line 8—8 of FIG. 7.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings in detail, the artificial female bust form, generally designated 11, is removably enclosed in a pocket 12 of a brassiere, generally designated 13. Connected to pocket 12 is a conically shaped brassiere cup 14 which receives the remaining natural breast of the body in a manner well known in the art. Brassiere 13 is provided with conventional side straps 16 and 17, connected respectively to pocket 12 and cup 14, and with shoulder straps 18 and 19 connected to the other respective parts of the brassiere in the well known manner.

Bust form pocket 12 is constructed in suitable fabric of a front wall 21 which is somewhat conical in shape and which is stitched or sewn at most of its periphery to a relatively flat rear wall 22 to form a casing for the bust form 11. At the outer lateral portion thereof, said pocket is open for insertion and removal of bust form 11. The outer lateral portion of rear wall 22 extends beyond the side portion of front wall 21 and terminates in a flap 23 which extends around the side end portion of bust form 11 and encloses the latter when said bust form is in position within pocket 12. Flap 23 extends inwardly and lies against the interior surface of wall 21 which retains flap 23 in position when pressure therebetween is induced when side straps 16 and 17 are fastened. When it is desired to remove the bust form after the brassiere is removed from the body, flap 23 is bent outwardly as shown in the dotted outline in FIG. 2 so as to expose the side opening in pocket 12 and to permit removal as well as insertion of bust form 11.

Referring to FIG. 4 et seq., bust form 11 comprises a casing or housing formed by a rear body-conforming

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flexible wall 26 made of a suitable soft, compressible, flexible and resilient material, such as latex, polyethylene foam, foam rubber, or the like. Bonded by suitable adhesive or the like to the peripheral portion of wall 26 is the peripheral portion of a somewhat conically shaped front wall 27 to form a contoured enclosure that simulates the female breast. Front wall 27 is made of the same material as rear wall 26. Front wall 27 and rear wall 26 are preferably contoured by custom fitting and cutting prior to assembly in order to simulate the shape of the female breast that had been surgically removed and to conform approximately to the breast that remains.

Formed between rear wall 26 and front wall 27 is a chamber 28 which contains at least one or a plurality of elongated, tubular bags 31 made of thin-walled elastic material such as natural or synthetic rubber or latex. Bags 31 may comprise the type of products known as prophylactic condoms which are exceptionally elastic and strong. Bags 31 are partially filled with a suitable liquid 32 such as glycerine, heavy soap solutions, or the like, which has a suitable viscosity and specific gravity which is close to that of the average female breast.

In some embodiments, bags 31 may be enclosed in a second outer bag 33 of the same material to form an outer protective sheath for the inner bag. Between the two bags, there is interposed a quantity of finely comminuted or powdered material 34 such as polyethylene, talcum, or the like, whereby absorption of liquid 32 by said powders may occur in the event that the inner bag 31 ruptures or becomes accidentally punctured.

Bags 31 and 33 are securely tied at the top with a knot 36 or other suitable closure element in order to produce a liquid-tight seal. In the embodiment of FIGS. 4 and 5, a pair of sets of bags 31 and 33 are connected in the region of said closures 36 to the upper inner surface of front wall 27 whereby said bags normally hang suspended therefrom. Said bags are connected to said inner surface of wall 27 by means of a suitable adhesive or the like which permanently secures said bags thereto.

Normally, when hanging loose from their respective points of adhesion, which are close to each other in the generally central top portion of wall 27, the lower ends of said bags would extend considerably below the bottom of housing or casing 12 prior to assembly therein. Since bags 31 and 33 are only partially filled with liquid, and since their walls are very elastic and flexible, said bags with their contents of liquid are forced into convoluted inter-engaging shape, within the conical recess behind front wall 27, as shown in FIGS. 4, 5 and 6, after which said front wall 27 is bonded by suitable adhesives at its periphery to the peripheral edge of rear wall 26 thereby securely retaining said liquid-containing bags within the interior of bust form 12.

In some embodiments, as shown in FIG. 5, a second rear retaining interior wall 37 may be made of a suitable flexible material such as polyethylene foam, foam rubber or latex, and may be first utilized to enclose bags 31, 33 within the conical interior of front wall 27 prior to bonding the peripheral edges of said front wall to the peripheral edges of rear wall 26. Wall 37 is juxtaposed against the interior surface of rear wall 26.

By suspending bags 31, 33 at their respective upper ends or upper portions thereof from the upper portion of front wall 27, it is found that by virtue of the movement of the liquid permitted by the elasticity and flexibility of said bags, a natural movability is imparted to bust form 12 which closely resembles that of the natural breast. Also, because of the suspension near the top of the bust form, the gravity characteristics of the contents of the bust form 12 most closely approximate the pendulousness or sag of the natural breast. Notwithstanding the gravity characteristics of the bust form and its contents, the unit as a whole, because of its overall resilience and flexibility, responds to conforming pressures of a

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brassiere which will produce the altered contours of the female breast as is accomplished by the shaping brassiere or uplift brassiere, as evidenced by the dotted line curve above the front wall 27, as shown in FIG. 5.

Although the present invention has been described with reference to particular embodiments and examples, it will be apparent to those skilled in the art that variations and modifications can be substituted therefor without departing from the principles and true spirit of the invention.

I claim:

1. An artificial bust form comprising a housing made of resilient material, an enclosure within said housing, at least one closed elastic and pliable elongated bag within the interior of said housing, a quantity of viscous liquid partially filling said bag, said bag being suspended in the region of its closure near the top inner surface of said housing whereby said liquid is normally urged by gravity toward the bottom of said enclosure, said bag normally having a length greater than the vertical dimension of said bust form.

2. A bust form according to claim 1 wherein each bag is provided with an outer elastic and pliable bag coaxially aligned therewith and closed at the same closure point of said first mentioned bag, and a mass of finely divided absorptive material located between said first mentioned bag and said outer bag.

3. A bust form according to claim 2 wherein said combination of first mentioned bag and outer bag are urged into a convoluted configuration within said enclosure and substantially fills said enclosure and imparts the characteristics of resilience and conformability to the bust form as a whole.

4. A bust form according to claim 1 wherein said enclosure comprises a breast simulating front conical wall, a rear wall, said two walls being bonded at their respective peripheries to form said enclosure.

5. An artificial bust form comprising a housing, a breast simulating front conical wall on said housing, a rear wall on said housing, said two walls being bonded at their respective peripheries to form an enclosure, both of said walls being resilient and flexible, at least one closed elastic and pliable elongated bag within the interior of said housing, a quantity of viscous liquid partially filling said bag, said bag being suspended in the region of its closure near the top inner surface of said front wall whereby said liquid is normally urged by gravity toward the bottom of said enclosure and imparts a pendulous characteristic to said bust form, said bag normally having a length greater than the vertical dimension of said bust form and when urged into said enclosure forms itself into a convolution to substantially fill said enclosure and at the same time imparts the characteristics of resilience and conformability to the bust form as a whole.

6. A bust form according to claim 5 and further comprising an inner retaining wall of resilient flexible material located on the interior of said enclosures, said retaining wall being bonded at its periphery to the front wall and retaining the bag in said enclosure, said inner retaining wall being juxtaposed against the interior wall of said rear wall.

7. An artificial bust form comprising a breast simulating front resilient conical wall, a resilient rear wall, said two walls being bonded at their respective peripheries to form an enclosure, a plurality of closed elastic and pliable elongated bags within the interior of said enclosure, a quantity of viscous liquid partially filling each of said bags, said bags being suspended in the region of their closures near the top of either of said walls whereby said liquid in said bags is normally urged by gravity toward the bottom of said enclosure, said bags when urged into said enclosure form themselves into convolutions in respect of each other substantially to fill said enclosure and to impart the characteristics of resilience and conformability to the bust form as a whole.

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8. A bust form according to claim 7 wherein the specific gravity of said viscous liquid approximates that of the natural female breast.

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ADELE M. EAGER, Primary Examiner

U.S. Cl. X.R.

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