

[54] **BRASSIERES FOR MASTECTOMY PATIENTS**

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[58] Field of Search 3/36; 128/478, 461, 479, 480, 128/481; 2/267

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[57] **ABSTRACT**

A brassiere for mastectomy patients who have had one breast surgically removed, which improved brassiere includes an artificial breast insert or so-called prosthesis of a size identical to the patient's normal breast and filled with weighted filling adapted to conform in shape, contour, and weight to the patient's normal breast, said novel insertable prosthesis having an opening therein through which filling can be easily added or removed, as desired, and said brassiere being designed with a special integral retaining pocket-like lining therein for removably securing said prosthesis insert in position, the removability of said insert permitting it to be temporarily removed from the bra when desired.

10 Claims, 5 Drawing Figures

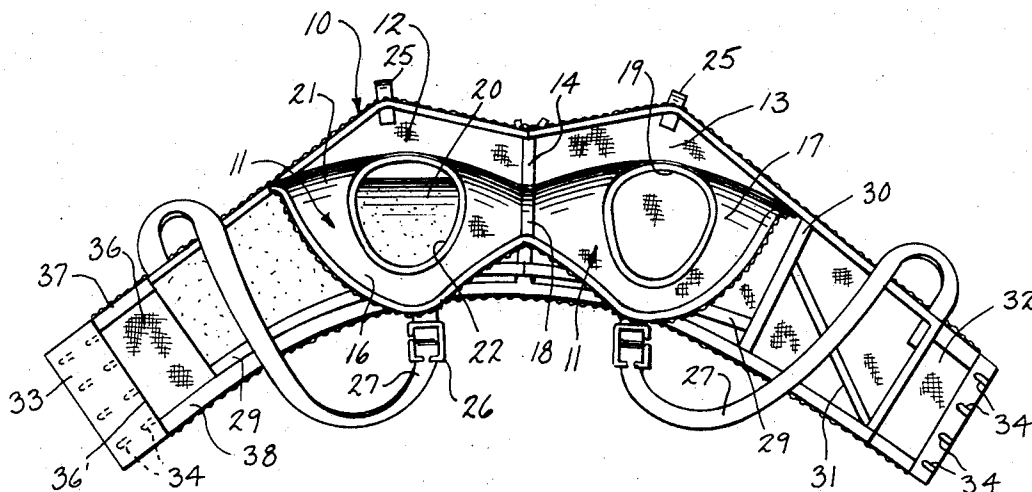


Fig. 1

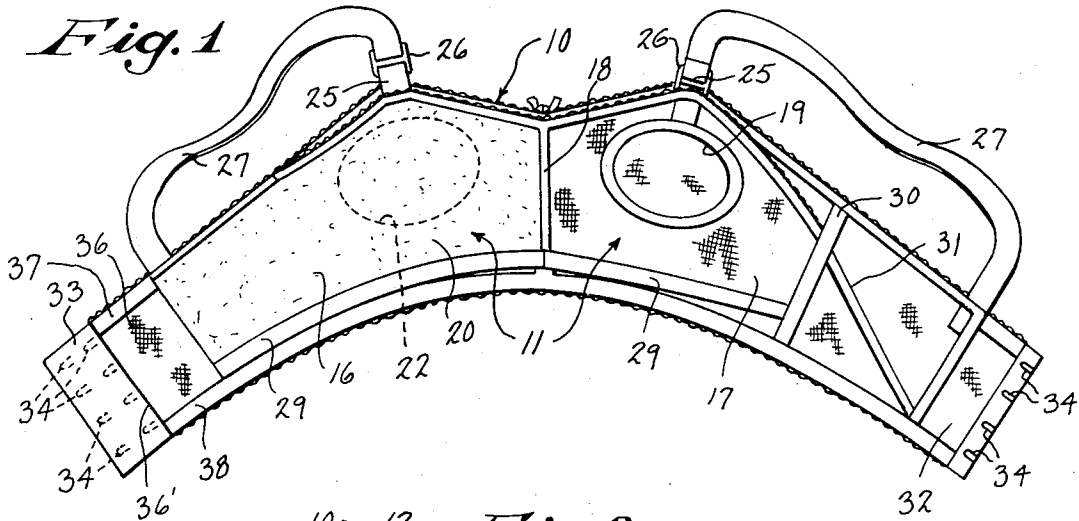


Fig. 2

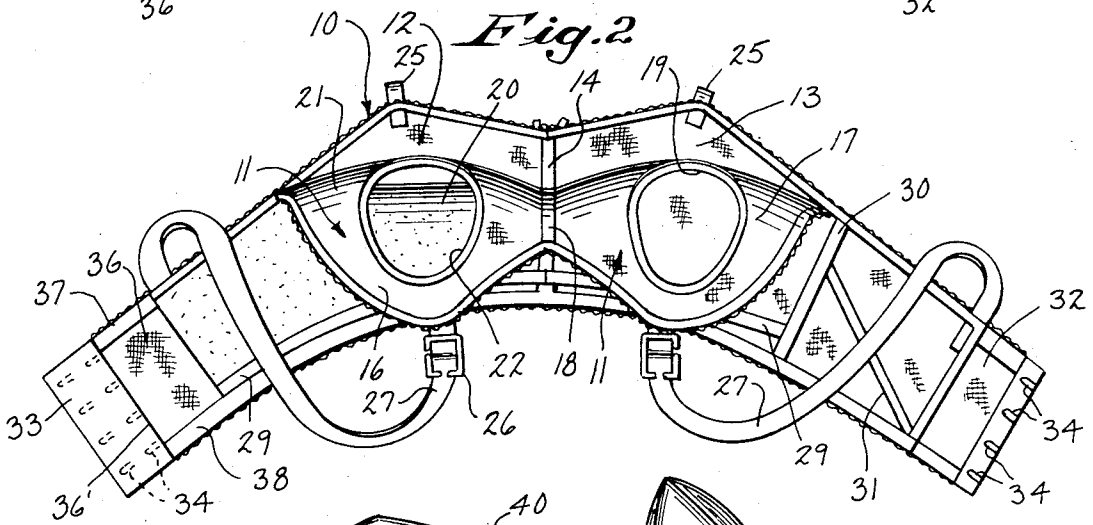


Fig. 3

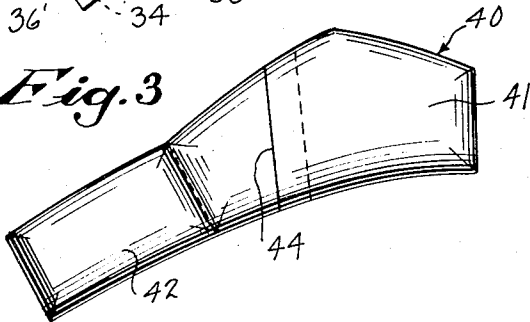


Fig. 4

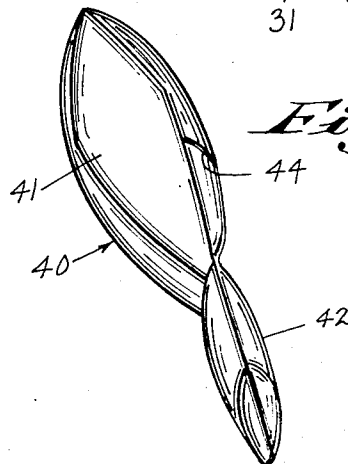
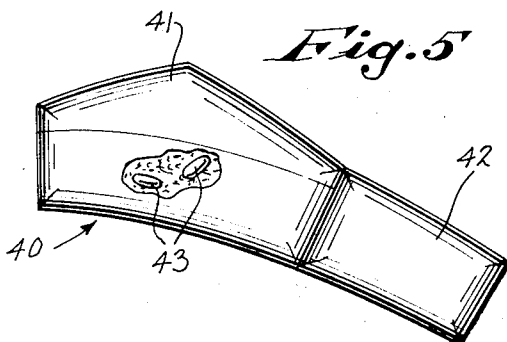


Fig. 5



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BRASSIERES FOR MASTECTOMY PATIENTS**BACKGROUND OF THE INVENTION****1. Field of the Invention**

The present invention relates to brassieres, and more particularly to brassieres for mastectomy patients.

2. Description of the Prior Art

Every year in the United States more than 50,000 women undergo mastectomy operations for the removal of a breast. It has long been recognized that for the rapid rehabilitation of these women, both physically and mentally, a comfortable, well-fitted, and unobtrusive brassiere including a false breast is a necessity. Nothing retards the rehabilitation of these patients more than the fear of looking and feeling "different."

Unfortunately, prior to the present invention a completely satisfactory mastectomy brassiere has not been available. One widely-used form of mastectomy brassiere in present use is formed of sponge rubber or similar material permanently sewn into the bra, which device is unsatisfactory for a number of reasons, including its inability to conform to the constantly changing position and contour of the wearer's normal breast during movement. Moreover, sponge rubber lacks the necessary weight to give the patient a feeling of balance, which lack of weight balance frequently results in the embarrassing tendency of the false breast to "ride up" on the chest wall, giving a lopsided appearance. In an attempt to overcome the latter problem various means have been devised to pull the insert downwardly and anchor it to the wearer's girdle or the like, but this is not only a nuisance, it causes the brassiere straps to cut into the wearer's shoulders, which is very uncomfortable and painful. Another shortcoming of said conventional mastectomy brassieres formed of sponge rubber or the like is that they are usually permanently sewn into the brassiere, and cannot be withdrawn for washing or airing out, which is necessary to eliminate the odor of perspiration, etc.

In an effort to eliminate some of the problems inherent in prior mastectomy brassieres of the type using a permanent filler of sponge rubber or the like, as hereinabove described, in recent years mastectomy bras have been designed which can be inflated, like a balloon, or which include an insert filled with liquid, which type of insert is intended to conform more closely to the contour and position of the patient's normal breast in various different postures, as well as to eliminate the problem of the insert "riding up." Unfortunately, however, and as might be expected, said inflatable and liquid-filled brassieres sometimes develop a leak, particularly if they are of the common type which is merely pinned into the bra, which can result in an extremely embarrassing situation, as will be appreciated.

As will be hereinafter described, the improved brassiere comprising the present invention eliminates all of the foregoing deficiencies of prior mastectomy bras. Moreover, as far as applicant is aware, no one has heretofore designed or patented a mastectomy brassiere similar to or anticipatory of her new structure.

SUMMARY OF THE INVENTION

The present invention provides a completely new and improved mastectomy brassiere for women who have had one breast removed, which improved bra is characterized by a novel removable prosthesis which can be readily contoured to exactly match the patient's normal breast in size, shape, and appearance.

A further object of the present invention is to provide a new and improved mastectomy brassiere which is designed primarily for patients who have had one breast surgically removed, as described, but which new mastectomy bra is also readily adaptable for women who have had both breasts removed.

A specific feature of the new mastectomy brassiere comprising the present invention is the provision of a special double ply lining sewn to its back face forming a pocket-like enclosure adapted to removably receive and retain the novel prosthesis insert featured in the invention, thus permitting the easy separation and removal of said insert from the bra when it is desired to wash the same, in contrast to most conventional mastectomy bras wherein the artificial breast is permanently installed therein.

A further object of the invention is to provide a mastectomy bra featuring a prosthesis insert which can be temporarily removed from the brassiere, as described, wherein said insert has an opening therein permitting filling to be added to or removed therefrom, as desired.

A further object of the invention is to provide a mastectomy brassiere featuring a removable artificial prosthesis insert as described wherein said insert is preferably filled with cotton having weights therein, thereby not only providing an artificial breast which is more natural looking than the sponge rubber, or air or liquid-filled bras heretofore used, but wherein even the weight of said improved insert can be readily adapted and modified to conform to the patient's normal breast, thereby enhancing her comfort as well as avoiding a lopsided appearance.

A further object of the invention is to provide a new and improved mastectomy bra featuring an inner support with a pair of openings therethrough through which both the artificial breast and the patient's normal breast are projected, respectively, said support encircling said insert, as well as the patient's normal breast, for a desirable upward contouring thereof, thereby providing a glamorous figure without the use of rigid stays or other uncomfortable braces.

A further object of the invention is to provide an improved mastectomy brassiere which provides support beneath both the patient's artificial and normal breasts to reduce the strain on the shoulder straps and minimize the painful biting of the straps into the wearer's shoulders.

A further object of the invention is to provide a new and improved prosthesis insert device for mastectomy patients which is designed primarily for use in a specially designed brassiere, as described, but which insert can also be readily adapted for use in conventional brassieres, nightgowns, swimming suits, and other garments as well.

Still further objects of the present invention are to provide a new and improved mastectomy brassiere which is not only comfortable to wear and natural in

appearance, but which is relatively simple and inexpensive to manufacture, completely reliable in use, durable and long-lasting in construction, and which is otherwise particularly well adapted for its intended purposes.

BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings, wherein there is illustrated one preferred form of the present invention, and wherein the same reference numerals designate the same parts in all of the views:

FIG. 1 is a plan view showing the back side of the improved mastectomy brassiere comprising the invention;

FIG. 2 is a similar plan view of the back of the bra showing the prosthesis insert-retaining lining folded back in position to receive said insert;

FIG. 3 is a plan view of the back of the artificial breast insert device featured in the invention;

FIG. 4 is a plan view of the front of said prosthesis insert; and

FIG. 5 is a perspective view of said prosthesis.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now more particularly to FIGS. 1 and 2 of the drawings, the numeral 10 designates the outer cover or fabric layer of the brassiere proper (FIG. 2), while the numeral 11 designates the novel inner lining or backing featured in the present invention, the function of which will be hereinafter described in greater detail. Said brassiere may be formed of cotton or other suitable fabric and includes a pair of breast-receiving cup portions 12, 13 (FIG. 2) separated by a transverse center seam 14 (FIG. 2) in the conventional manner. The inner lining 11 also includes a pair of breast-receiving cup portions 16, 17, hereinafter referred to as the lining first and second sections, respectively, separated by a center seam 18, as shown. In the illustrated bra the section 17 of said inner lining 11 has an opening 19 therethrough designed to accommodate the wearer's normal breast, while the opposite half 16, or first lining section, is formed of two separate plies or layers 20, 21 (FIG. 2), and is adapted to form a pocket-like receptacle to receive and retain the artificial breast, or so-called prosthesis, there being a circular opening 22 in said lining inner ply 21 to accommodate the artificial breast insert, as will be described.

Short fabric loop elements 25 project from the top edge of each of the cup members of the brassiere proper (FIG. 2), and projecting upwardly from the top edge of the adjacent sections 16, 17 of the inner lining 11 are adjustable strap-engaging brackets 26 which are releasably interconnectable with said loop elements 25, there being conventional shoulder straps 27 attached thereto. Said lining 11 is preferably permanently sewn to the brassiere proper along its bottom longitudinal edge, forming a seam 29 (FIG. 1), and the outer end of said inner lining section 17 is secured to the bra by a vertical seam 30. A brace portion 31 extends laterally outwardly from said seam 30 and extending therebeyond is an end strap or band 32 which may include elastic and which is adapted to extend partially around the wearer's back to meet a corresponding band 33 on the opposite side of the bra, there being conventional hook fasteners 34 or the like for connecting said band ends, as is well known in the art. The

major portion of the upper edge of said inner liner 11 is free of the bra proper to permit the same to be folded or swung downwardly to an open position as illustrated in FIG. 2 (or permitting the bra cup to be swung forwardly and downwardly relative to said lining), the function of which will become apparent hereinafter.

As hereinabove described, the section 17 of the inner lining 11 designed for the wearer's normal breast has an enlarged circular opening 19 extending therethrough, while the first lining section 16 designed for the artificial breast is formed of double ply or layers of fabric and has a similar opening 22 in its inner layer 21 (FIG. 2). The outer layer or ply 20 of said lining section 16 is devoid of an opening and functions as a backing to secure the novel artificial breast insert or prosthesis featured in the present invention in position.

Said two-ply lining section or panel 16 is secured along its bottom edge by the seam 29 and the major portion of the top edge is free of the bra to permit said bra and lining to be partially separated or opened (FIG. 2), as described, and in the illustrated form of the invention said lining section 16 includes a lateral extension 36 which is sewn to the bra along both its top and bottom edges by seams 37, 38, respectively. It is to be understood, incidentally, that the length of said lateral lining extension 36 is dependent upon the amount of flesh and bone structure, etc. surgically removed from the area adjacent the breast of the particular wearer, and the corresponding length of the artificial insert required for her particular condition. This can be varied as required, and the invention is by no means to be limited in this respect. The extreme outer end 36' of said lining extension 36 is preferably open to facilitate the manipulation and positioning of the prosthesis in the pocket-like enclosure formed between said dual-ply inner lining 11, as will be described.

With respect now more particularly to FIGS. 3-5 of the drawings, illustrated therein is the novel artificial breast insert or prosthesis 40 featured in the present invention. As will be seen, said prosthesis includes a forwardly tapered main portion or body 41 designed to conform closely to the size and shape of the wearer's normal breast, each patient being individually measured and fitted to ensure almost identical conformity in this respect, and projecting laterally outwardly from one end of said body portion is an extension 42 adapted to extend partially around the side of the wearer's chest wall, the length of said extension 42 depending upon the requirements of the particular patient, as described.

In accordance with the present invention said prosthesis 40 is formed of a suitable fabric and is filled with stuffing of cotton or other comparable material adapted to give the insert the same characteristics of size, shape, resiliency, and contour as the wearer's normal breast. In addition weights 43 (FIG. 4) can be introduced into said prosthesis to match the weight of the woman's normal breast, thereby avoiding the possibility of an embarrassing lopsided appearance. As best appears in FIG. 3, the prosthesis 40 is provided with an overlapping slit-like opening 44 in its back face through which said filling of cotton (or other suitable material) is not only initially introduced into the insert but which opening permits the addition or removal of filling to ensure the prosthesis conforms exactly in size and shape to the woman's normal breast.

To install the novel insertable prosthesis 40 in the brassiere, the lining 11 is first unhooked from the bra loop elements 25 and swung rearwardly and downwardly about its bottom longitudinal seam 29 relative to the bra proper to expose the lining opening 22, as shown in FIG. 2, or, alternatively, the outer cup portion of the bra proper is merely swung forwardly and downwardly to expose said liner opening 22. The resilient, cotton-filled prosthesis 40 is then manually forced or stuffed through said exposed opening 22 in the forward wall of the dual-ply lining 11, said lining forming a pocket-like receptacle therefor as described. The insert is then manipulated so that the tapered body portion 41 thereof projects through said circular lining opening and the lateral extension on said insert is urged into the corresponding lateral pocket portion 36.

The brassiere, with the artificial breast installed therein as described, is then arranged so that said prosthesis 40 projects into the corresponding breast-receiving cup 12, and said coacting bracket and loop elements 25, 26 are joined to secure said assembly in its closed, ready-to-wear condition.

From the foregoing detailed description it will be seen that the present invention provides a completely new concept in brassieres for mastectomy patients having a number of advantages over the mastectomy bras heretofore used. For one thing, the present brassiere is provided with a special lining or backing hingedly secured to its back face forming a pocket-like enclosure adapted to removably receive and retain a novel prosthesis insert, the removability of said prosthesis permitting the same to be taken out for washing, re-sizing, or other purposes. Moreover, the unique prosthesis featured in the invention is provided with a slit-like, overlapped opening therein through which filling and weights can be added to or removed from said insert as desired, thereby ensuring that the false breast can be readily adapted to exactly match the wearer's normal breast in size, weight, shape, and appearance.

Still further advantages of the new mastectomy bra are that it features an inner lining with a pair of circular openings therethrough through which both the artificial prosthesis and the wearer's normal breast are projected, thus providing encircling support for a desirable, attractive upward contouring thereof, as well as reducing the strain on the shoulder straps and minimizing the painful biting of said straps into the wearer's shoulders.

It is to be understood that while one preferred embodiment of the present invention has been illustrated and described herein, numerous variations or modifications thereof may occur to those having skill in this art. Moreover, while the present invention has been described herein primarily in conjunction with patients who have had only one breast removed, the invention can also be advantageously used by double amputees merely by utilizing a bra formed with prosthesis-retaining liner elements on both sides thereof, and installing two of the novel prosthesis inserts featured in the present invention.

In addition to the above, it is to be understood that while a specially-designed brassiere and lining combination is preferred, it is possible to use the novel prosthesis and coacting retaining liner hereinabove described in a conventional brassiere. In the latter

event the lining can either be permanently sewn into the bra, or it can be removably installed therein by means of hooks or comparable detachable fasteners. Similarly, the unit can be utilized in nightgowns, swimming suits, and other garments, and the invention is not to be limited or confined in this respect. What is to be covered herein, in other words, is not only the illustrated form of the invention but also any and all variations or modifications thereof as may come within the spirit of the invention.

What I claim is:

1. A mastectomy brassiere for a woman with one breast removed, comprising: an outer brassiere member having first and second forwardly projecting breast-receiving cups; a lining conforming generally to the shape of and secured to the back side of said bra by means adjacent its bottom longitudinal edge, said lining including a dual-ply first section positionable in alignment with one of said bra cups, the inner ply of said lining section having a circular opening therethrough and the outer ply of said lining section being devoid of an opening to provide a back, said first lining section forming a pocket-like receptacle; a prosthesis insert filled with stuffing and conforming in size and shape to the wearer's normal breast positioned in said receptacle; coacting disengageable connecting means on the upper portions of said bra and lining members, the releasable nature of said connecting means permitting the lining upper portion to be temporarily disengaged from the bra and separated therefrom to expose said circular opening in the lining inner ply, thereby permitting said prosthesis insert to be introduced therethrough into said pocket-like receptacle with a substantial portion of said insert projecting through said opening, said lining and bra upper portions being connectable again with said prosthesis projecting into the aligned bra cup.

2. The mastectomy brassiere recited in claim 1 wherein said lining includes a second section alignable with the other bra cup.

3. The mastectomy brassiere recited in claim 2 wherein said second lining section has a circular opening therethrough through which the wearer's normal breast is adapted to project.

4. The mastectomy brassiere recited in claim 1 wherein said insert filling is formed of cotton.

5. The mastectomy brassiere recited in claim 1 wherein said prosthesis insert has weights therein whereby said insert conforms substantially in weight to the weight of the wearer's normal breast.

6. The mastectomy brassiere recited in claim 1 wherein said prosthesis insert has means therein for adding or removing filling therefrom.

7. The mastectomy brassiere recited in claim 6 wherein said last mentioned means comprises an overlapped slit-like opening in the back side of said insert.

8. The mastectomy brassiere recited in claim 1 wherein said prosthesis insert has a laterally projecting extension formed thereon, and wherein said first lining section has a lateral extension adapted to removably receive and retain said insert extension.

9. The mastectomy brassiere recited in claim 2 wherein said lining second section is similar to said first lining section, and wherein a pair of said prosthesis inserts are installed in said brassiere for double amputee patients.

10. A mastectomy brassiere for a woman with one breast removed, comprising: an outer brassiere member having a front and back side and first and second, forwardly projecting breast-receiving cups with band elements extending laterally therefrom adapted to encircle the wearer's back and to be releasably joined; a small bracket-engaging loop member projecting from the upper edge of each of said cups; an inner fabric lining conforming generally to the shape of and secured to the back side of said brassiere, said inner lining being secured to said brassiere adjacent its bottom edge, said inner lining including a second section positionable in alignment with one of said brassiere breast-receiving cups and having a circular opening therethrough through which the wearer's normal breast is adapted to project, and said inner lining having a dual-ply first section positionable in alignment with the other bra cup, the inner ply of said first lining section having a circular opening therethrough through which a cotton-filled prosthesis insert is adapted to project, the outer ply of said first lining section being devoid of an opening to form a back, and there being a lateral extension on said lining section, said dual-ply first lining section providing a pocket-like receptacle; a prosthesis insert formed of fabric filled with pliable material and including a

tapered body portion conforming in size and shape to the wearer's normal breast positioned in said receptacle, there being a slit-like overlapped opening in the back of said insert body portion through which filling can be added or removed, and said insert body portion being adapted to have weights inserted therein; a laterally projecting extension formed integrally on said prosthesis insert installed in said first lining section lateral extension; a strap-retaining bracket adjacent the upper edge of each of said inner lining sections adapted to be releasably engaged with said loop members on the tops of the bra cups, the releasable nature of said brackets permitting said lining upper portion to be disengaged from said loops and temporarily separated from the bra proper to expose the circular opening in said first lining section and to permit said insert to be manually removably introduced through said opening and into the pocket-like receptacle formed by said dual-ply lining with a substantial portion of said insert body projecting through said circular opening, said lining upper portion being attachable again to the upper portion of the bra with said prosthesis projecting into the aligned bra cup.

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