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Dehlin et al.

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[54] **ARTIFICIAL BREAST REPLACEMENT**

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[51] **Int. Cl.**.....**A61f 1/00,** A41c 3/10

[58] **Field of Search**.....3/36; 128/478–481; 2/267

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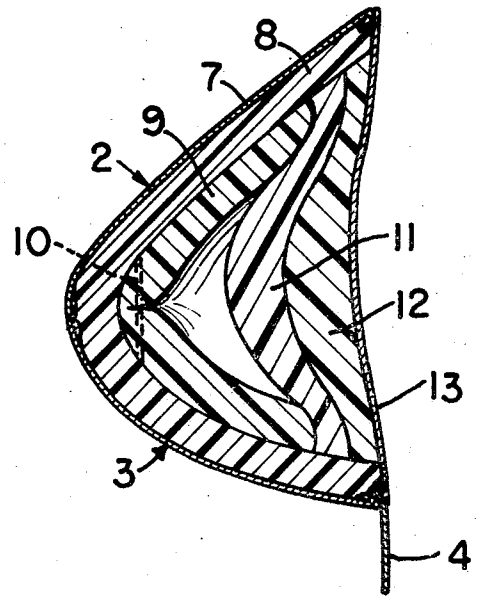
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[57] **ABSTRACT**

An artificial breast adapted to be worn inside a brassiere by women who have had their breast removed is provided. The breast is provided with a special concave back and specially arranged front cover which makes the breast fit tightly against the chest and gives it a very natural looking appearance.

6 Claims, 3 Drawing Figures



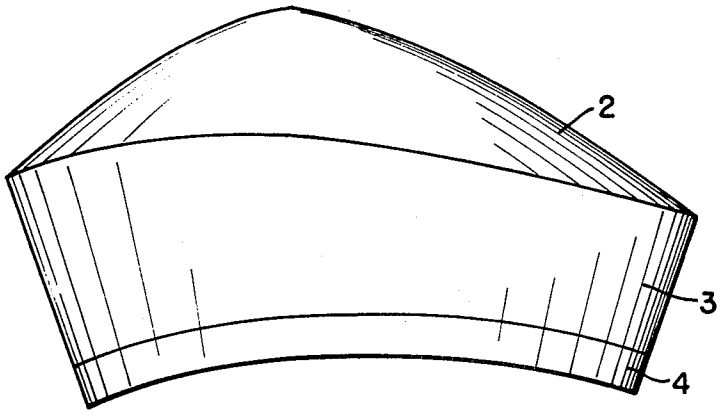


FIG_1

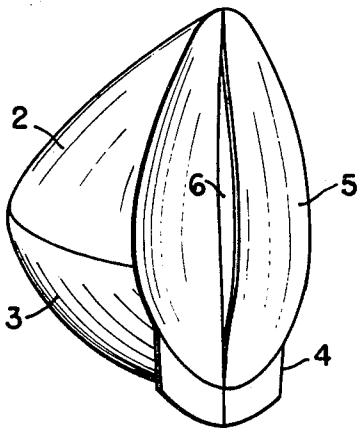


FIG_2

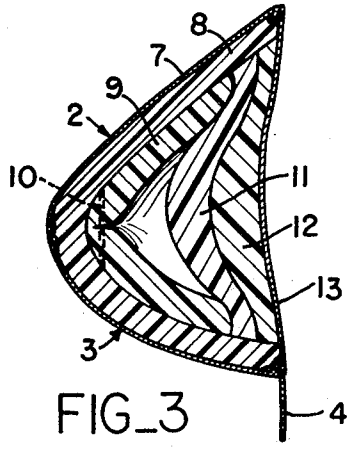


FIG_3

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ARTIFICIAL BREAST REPLACEMENT

This invention relates to a new type of artificial breast. The invention relates more particularly to a new and improved artificial breast adapted to be worn inside a brassiere by women who have had a breast removed surgically.

Specifically, the invention provides a new artificial breast which can be used for cosmetic and prosthetic uses and comprises a filled breast portion having a conical front and a concave back, said breast body portion being composed of an outer fabric casing the top and bottom front portions of which are cut on the bias of the fabric making up the casing so as to allow the casing when filled inside to form a curve similar to the natural breast, said outer casing having a front bottom band which acts as an anchor to hold the breast against the chest, the back of said outer casing having an opening through which the filling may be introduced, said outer casing being filled inside with a series of layers of spun synthetic fiber, the first layer covering the front of the casing, the second layer being pressed on top of the first layer and being formed by folding a piece of spun synthetic fiber in half and then refolding again and bartacking the center of the folds as to give a concave form in the center of the back of the breast body portion, and at least two additional layers of spun synthetic fibers being pressed against the said second layer of spun fiber and filling the remaining space in the outer fabric casing.

In view of the large number of cases where it has been necessary to remove a breast during surgery, there is a great need for an artificial breast which can be worn under the brassiere as a replacement to give the same contour of a natural female breast. Artificial breasts prepared heretofore, however, have had certain defects which have prevented their acceptance by the public. In many cases, the breast pads have not fit properly and have moved and shifted around during use and have caused considerable embarrassment. In other cases, the artificial breast has not maintained the proper shape and has appeared out of line or in a difference shape than the other natural breast. In still other cases, the artificial breast has been hot and uncomfortable to wear over long periods of time. In addition, the breasts prepared heretofore have in most cases been difficult to laundry and clean and it has been necessary to purchase new pads at frequent intervals.

It is an object of the invention, therefore, to provide a new artificial breast which corrects all of the above-noted difficulties. It is a further object to provide a new artificial breast which fits snug against the chest and does not shift about. It is a further object to provide a new artificial breast which maintains proper shape and holds to the line of the other breast. It is a further object to provide an artificial breast which is light in weight, cool and comfortable to wear. It is a further object to provide an artificial breast which is easy to laundry. These and other objects will be apparent from the following detailed description of the invention.

It has now been discovered that these and other objects are accomplished by the artificial breast of the present invention as described herein and in the accompanying drawing. The new breast comprises a filled breast portion having a conical front and a concave back, said breast body portion being composed of an outer fabric casing the top and bottom front portions of which are cut on the bias of the fabric making up the casing so as to allow the casing when filled to form a curve similar to the natural breast, said outer casing having a front bottom band which acts as an anchor to hold the breast against the chest, the back of said outer casing having an opening through which the filling may be introduced, said outer casing being filled with a series of layers of synthetic fiber, the first layer covering the front of the casing, the second layer being pressed on top of the first layer and being formed by folding a piece of synthetic fiber in half and then refolding and bartacking the center of the folds as to give a concave form in the center of the back of the breast body portion, and at least two additional layers of spun fibers being pressed against the second layer and filling the remaining space in the outer fabric casing.

It will be seen from the foregoing description considered with the attached drawing that the present invention provides a new and highly useful artificial breast which has many desired advantages over those already known in the art including those already pointed out above and others which are inherent in the invention.

In the attached drawing,

FIG. 1 represents a frontal view of the breast showing the front portion of the outer fabric casing,

FIG. 2 is a side view of the outer fabric casing, and

FIG. 3 is a cut-a-way side view of the breast.

In FIG. 1, 2 represents the top front portion of the casing, 3 represents the bottom front portion of the casing, and 4 represents the front bottom band which acts as an anchor to hold the breast against the chest. In FIG. 2, 5 represents the back of the outer casing and 6 represents the opening in the back through which the layers of synthetic fiber are introduced. In FIG. 3, 7 represents the outer fabric casing layer, 8 is the first layer of spun synthetic fiber, 9 the second layer of synthetic fiber which has been folded and bartacked in the center as shown by 10. 11 represents the third layer of synthetic fiber, 12 the fourth layer of synthetic fiber and 13 represents the back of the outer casing.

The fabric used to make the outer casing may be of any soft wrinkle free material. It is preferred to use a soft polyester fabric as this material is soft and comfortable against the body.

The size of the breast will depend upon the size of the natural breast being replaced and will be individually tailored to the individual. Each breast size is measured to conform with the girth measurement. Therefore, each cup size is measured accurately both in circumference and diameter. There is approximately a ¼ to ½ inch differential between the center at the apex of the breast and the center of the apex of artificial breast to the point midway at the horizontal seam. From the apex center to the bottom center the graduation will also vary from about one-fourth to one-half inch in related girth sizes, going from the minimum cup size to each cup size in the same size girth measurement, but going upward to the next cup size, e.g., 34B to 34C.

The outer fabric casing is assembled by sewing together the top front portion, the bottom front portion and the bottom band and back portion of the casing. The pieces are designed to be sewn together horizontally, from outer size to apex, to inner side. The inside seam to apex is shorter than the outer seam to apex, al-

lowing the fullness on the outer side, to more closely resemble the normal human breast. The fabric on the upper part of the pattern is cut on the bias to give a more natural appearance. This gives a downward slope from the top of the breast to the apex. The bottom part of the breast is cut on the bias of the fabric, the purpose is to give firm control and also a fullness to conform with the natural look and also to extend the breast outward from the chest wall. The bottom is shorter by three-fourths to five-eighths of an inch in order for the breast to be in exact position with the normal human breast.

The ¾ to ⅝ inch band, depending on the size of the artificial breast, across the bottom of the breast was designed for the purpose of holding the artificial breast securely between the brassiere at the bottom and the chest wall, of some makes and to fit securely between the inner cup at the bottom and the inner side of the felt collar, in the new type brassiere, in which the control of the breast is under the breast rather than the shoulder, thereby relieving the shoulder strain. The purpose is again to anchor the artificial breast securely at the bottom, thereby virtually eliminating any slippage of the breast during use.

The new artificial breast is prepared by filling the outer fabric casing prepared as noted above, with layers of spun synthetic fiber, such as spun polyester fiber as spun Dacron. The first layer of spun synthetic fiber covers the inner side of the entire front of the breast. Following this a 8 to 9 inch square piece which has been folded in half and then refolded to give a square, then bartacked in the center is placed next. This gives a concave in the center towards the back of the breast. This is preferably followed by triangular pieces measured to fit the width and length of the breast size. The pieces may vary from two to four pieces, depending upon firmness desired and the size of the artificial breast. In general, two pieces are sufficient. By filling the outer casing in this manner it concaves at the back surface giving the necessary shape to conform to the chest wall where the natural breast has been removed.

The back of the outer casing has an opening from top to bottom and extending over one side at the top and bottom approximately three-fourths inch in the center in order to fill easily and then close so as to hold the filling inside securely.

It is also desirable to prepare a cover, cut by the same pattern as the artificial breast as described above, so that it can fit over the breast and be removed for washing daily. The artificial breast can, of course, be laundered in washing machines, using gentle cycle, and dried in conventional driers using medium temperature.

One of the purposes of the new artificial breast is to give comfort and light weight. However, weights can be added if necessary. It also resembles in shape and feel the natural breast. It may be any desired size and the firmness of the artificial breast may be increased or decreased to resemble the wearers normal breast tissue. It is designed to be worn by women who have had mastectomy surgery, who have had either one or both breasts removed, as a prosthesis or orthopedic replacement item. It can also be worn by women with undeveloped breasts as well.

We claim as our invention:

1. A surgical breast adapted to be worn inside a brassiere by women who have had their breast removed, comprising a filled breast portion having a conical front and a concave back, said breast body portion being composed of an outer fabric casing the top and bottom front portions of which are cut on the bias of the fabric making up the casing so as to allow the casing when filled inside to form a curve similar to the natural breast, said outer casing also having a front and bottom band which acts as an anchor to hold the breast against the chest, the back of said outer casing having an opening through which the filling may be introduced, said outer casing being filled inside with a series of layers of spun synthetic fiber, the first layer covering the front of the casing, the second layer being pressed on top of the first layer and being formed by folding a piece of spun synthetic fiber in half and then refolding again and bartacking the center of the folds as to give a concave form in the center of the back of the breast body portion, and at least two additional layers of spun synthetic fibers being pressed against the said second layer of spun fiber and filling the remaining space in the outer fabric casing.

2. A surgical breast as defined in claim 1 wherein the synthetic fiber is a polyester fiber.

3. A surgical breast as in claim 1 wherein the bottom front portion of the outer casing is shorter by three-fourths to five-eighths inch than the top front portion.

4. A surgical breast as defined in claim 1 wherein the front bottom band is three-fourths to five-eighths inch wide.

5. A surgical breast as in claim 1 wherein second layer of filling is formed by folding a layer of spun fiber about the size of the first layer and refolding again so as to form a layer about one-fourth to one-half the size of the first layer.

6. A surgical breast as in claim 1 wherein the third and fourth layers are of triangular shape.

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