

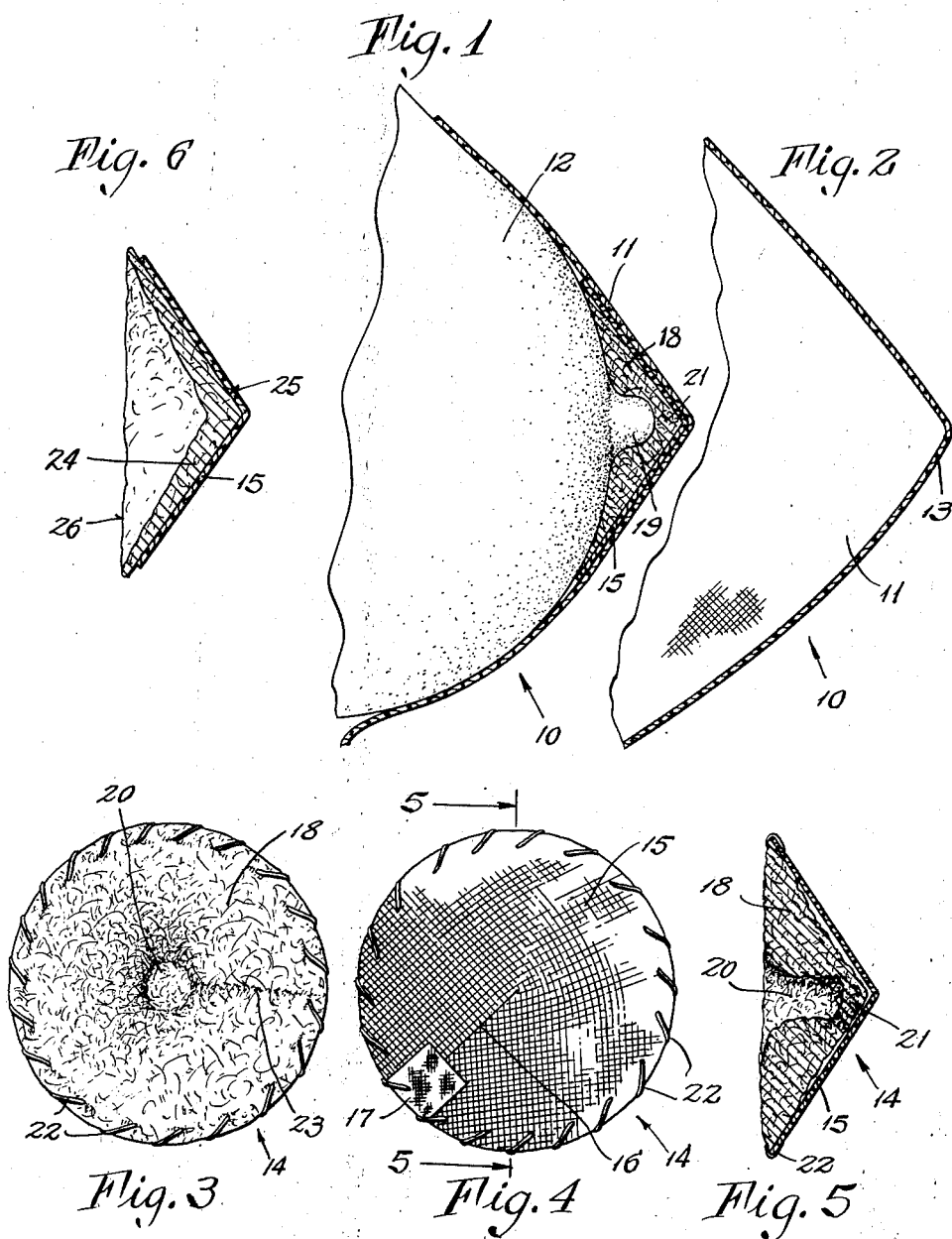
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BREAST SHIELD

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## UNITED STATES PATENT OFFICE

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## BREAST SHIELD

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This invention relates to breast shields for use inside of brassières.

It is common practice in the making of brassières to form the cups thereof by cutting the fabric material along sector lines, or cutting sector-shaped pieces of fabric, and then sewing together the adjoining edges to provide the hollowed shape. By this procedure a pointed configuration is very readily obtained, and such configuration has found considerable favor and come into widespread usage. However, such configuration is difficult to properly fill out with the human breast, and therefore, is not well maintained when the brassière is being worn; moreover, it is not a natural configuration for the breast, since it tends to distort the nipple and surrounding area.

It has been proposed to have brassières with non-pointed cups provided with pad-holding pockets for other purposes. These added considerably to the expense of the brassière, and made the laundering more difficult, while at the same time not serving the purpose of the present invention of filling out the pointed brassière to the desired shape while being worn.

According to the present invention, these difficulties and disadvantages are overcome by the provision of an improved, detached breast shield characterized by a stiffness, size and shape such that it will fit and may be readily positioned between a breast and the cup of a brassière while the latter is being worn, the said shield shaping and completely filling out the apex of the brassière cup into its preformed, pointed and generally conical configuration and at the same time providing a soft and natural-shaped cushion or pad for engagement with the breast and nipple for protection.

The improved breast shield as set forth above is economical of manufacture and disposable, thus obviating the necessity for laundering. It may be used with any of the various types of brassières having generally pointed or conical shaped pockets; since no change whatsoever is required in the brassière, and enables the desired neat appearance to be had.

Other features and advantages will hereinafter appear.

In the accompanying drawings:

Figure 1 is a sectional view of the present improved breast shield and a brassière, being worn on a breast.

Fig. 2 is a sectional view of the pocket portion only of a brassière, showing the pointed configuration thereof.

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Fig. 3 is an elevational view of the rear of the breast shield.

Fig. 4 is an elevational view of the front of the shield.

Fig. 5 is a section on line 5—5 of Fig. 4, and Fig. 6 is a sectional view of a breast shield illustrating a modification of the invention.

Referring to Figs. 1 and 2 a brassière 10 is shown, having a cup portion 11, the said brassière being worn over the breast 12. The cup portion 11 of the brassière has the popular pointed configuration, with a point or tip 13, and is of generally conical shape.

In accordance with the invention, an improved shield 14 is provided to completely fill out, shape and maintain in shape the cup 11 of the brassière, and to furnish a soft and natural shaped protecting cushion for the breast 12, the said shield being organized so that it is structurally separate and distinct from the brassière and may be readily positioned between the breast and any pointed brassière while the latter is being worn, and so that it may be produced at such low cost that the user may discard it after use without much concern.

The shield 14 comprises a foundation in the form of a relatively stiff, cone-shaped sheet 15 which is disposed for engagement with the brassière 10, and which has a shape generally conforming to the shape of the brassière cup 11.

The foundation sheet 15 may be made of various different relatively stiff materials, one found to be satisfactory and desirable being buckram or crinolin, and in the illustrated embodiment of the invention, the buckram cone 15 is formed by first cutting out a disk of buckram, and then making a radial cut as shown at 16 in Fig. 4. The portions of the buckram disk adjacent the cut 16 are overlapped, to produce the cone shape, and are held in overlapped position by fastening means such as a small square 17 of adhesive-coated tape.

Inside and against the back of the cone-shaped sheet 15 a soft, relatively thick backing or cushion 18 is provided, disposed for engagement with the breast 12, and to prevent engagement of the nipple 19 of the breast with the buckram cone 15, the said backing being arranged to provide a natural-shaped support for the breast. By the term relatively thick as applied to the cushion 18 is meant a thickness substantially greater than that usually found in cotton fabrics, buckram and the like, and a thickness usually associated with padding. The cushion 18 is preferably formed of cotton fibres and as shown in Figs. 1

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and 5, is of conical shape to closely conform to the inside surface of the cone-shaped sheet 15, and to generally occupy the space defined by the sheet 15. The cushion 18 has a depression or recess 20 (which may be formed by displacing the cotton fibres) for receiving and supporting the nipple 19, and has a front wall 21 at the bottom of the recess 20 to separate the nipple 19 from the buckram sheet 15, at all times.

Preferably, as shown in Figs. 3 and 4, the cushion 18 is secured to the cone 15 by sewing together the juxtaposed peripheral portions thereof by overcast stitches 22.

The cotton backing 18 may advantageously be made of cotton batting by cutting out a disk from the batting, and then cutting out and discarding a sector-shaped portion of the disk, and meeting the cut edges of the disk as shown at 23 in Fig. 3. The batting disk is also shaped at its center to provide the front wall 21 and recess 20.

By the above organization a desirable breast shield is provided which has a number of advantages. It is inexpensive and economical to manufacture, and thus may be sold at a low figure to enable a user to economically dispose of the shield when worn or soiled, thus eliminating the need for laundering. The construction of the shield is such that it may be easily slipped in position between a breast and the cup of a brassière while the latter is being worn, thus obviating pockets, fasteners and the like on the brassière and simplifying its use.

The shield may be used with conventional brassières having cone-shaped cups, and will fill out and shape the cups to a desirable pointed configuration, and will maintain such configuration by virtue of the relative stiffness of the buckram cone 15, and by virtue of the positioning means comprising the recess 20 which receives the nipple 19, whereby the shield 14 is held in place against shifting. Moreover, the cushion 18 provides a soft, natural-shaped support for the breast 12 and nipple 19, and prevents chafing and irritation thereof through isolation of these parts from the buckram cone 15.

The article of the present invention should not be confused with pads heretofore made which are of such size, thickness and shape as to fill the pockets of a brassière for the purpose of giving to a woman with slight, undeveloped or removed breasts the appearance of a normal full bust.

A modification of the invention is shown in Fig. 6, wherein the cushion of the shield has a different shape from that shown in Figs. 1 through 5. The cone 15, however, shown in Fig. 6 may be substantially the same as that already described, or it may be formed of other material than buckram so long as it retains a substantial degree of stiffness. Within the cone 15 and secured to the back thereof is a generally conical cushion or backing 24 also having the form of a cone, the said backing being formed from cotton batting by a pressing operation, using a punch and die. The walls of the backing 24 are of tapering section, being thickest at the apex 25 and thinnest at the periphery 26, and the peripheral edge of the backing preferably has a larger diameter than the periphery of the foundation 15 so as to extend beyond the edge of the foundation and prevent the breast from coming in contact with the said edge. At the periphery of the backing 24 the walls thereof are relatively thin and have little bulk, so that the edges of the shield are unnoticeable when it is being worn inside the brassière.

By the provision of the thickened wall portions

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at the apex of the backing 24 the tip portion of the brassière pocket is filled out fully, and the pocket is maintained in its predetermined shape at all times.

The foundation cone 15 and backing cone 24 may be secured together by any suitable means, such as a flexible adhesive for example.

Variations and modifications may be made within the scope of this invention and portions of the improvements may be used without others.

I claim:

1. As a new article of manufacture, a breast shield having a size and conical shape such that it will fit and may be placed in position between a breast and the pointed cup of a brassière while the latter is being worn, to be wholly contained in said cup, said shield comprising an outer substantially stiff, cone-shaped sheet disposed for engagement with the brassière and adapted to shape the latter; and a soft relatively thick cushion located inside and against said cone-shaped sheet for engagement with the breast and having a recess to receive the nipple of the breast, said cushion having a soft forward wall portion at the bottom of the recess to prevent the nipple from touching the said cone-shaped sheet.

2. As a new article of manufacture, a breast shield having a size and conical shape such that it will fit and may be placed in position between a breast and the pointed cup of a brassière while the latter is being worn, to be wholly contained in said cup, said shield comprising an outer substantially stiff, cone-shaped sheet disposed for engagement with the brassière and adapted to shape the latter, said cone-shaped sheet having a pointed tip; and a soft relatively thick, disk-shaped cushion secured inside and against said cone-shaped sheet, said cushion being disposed for engagement with the breast and having a recess to receive the nipple of the breast, and said cushion having a soft forward wall portion at the bottom of the recess to prevent the nipple from touching the said cone-shaped sheet.

3. As a new article of manufacture, a breast shield having a size and conical shape such that it will fit and may be placed in position between a breast and the pointed cup of a brassière while the latter is being worn, to be wholly contained in said cup, said shield comprising an outer substantially stiff, cone-shaped sheet of stiffened open mesh fabric disposed for engagement with the brassière and adapted to shape the latter, said fabric sheet having a pointed tip; and a soft relatively thick, disk-shaped cushion of cotton batting located inside and at its edges sewed to said fabric sheet, said cushion being disposed for engagement with the breast and having a recess to receive the nipple of the breast, and said cushion having a soft forward wall portion at the bottom of the recess to prevent the nipple from touching the said fabric sheet.

4. The combination with a brassière, of a breast shield having a size and conical shape such that it will fit and may be placed in position between a breast and the pointed cup of the brassière while the latter is being worn, to be wholly contained in said cup, said shield comprising an outer substantially stiff, cone-shaped fabric sheet disposed for engagement with the brassière and adapted to shape the latter, said fabric sheet having a pointed tip; and a soft relatively thick, disk-shaped cushion secured inside and against said fabric sheet, said cushion being disposed for engagement with the breast and having a recess to receive the nipple of the

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breast, and said cushion having a soft forward wall portion at the bottom of the recess to prevent the nipple from touching the said fabric sheet.

5. As a new article of manufacture, a breast shield to overlie the apex portion only of the breast when inserted between the breast and the pointed breast cup of a garment, said shield comprising a foundation sheet in hollow conical form to engage and fill out the point of the cup and a cushion of soft absorbent material located in the hollow of the foundation sheet to line the same and to engage the apex of the breast.

6. As a new article of manufacture, a breast shield to overlie the apex portion only of the breast when inserted between the breast and the pointed breast cup of a garment, said shield comprising a foundation sheet of hollow conical form to engage and fill out the point of the cup and a conical cushion of soft absorbent material located in the hollow of the foundation sheet to line the same and to engage the apex of the breast, the walls of the cushion being tapering in cross section and being thinnest at the peripheral portions of the cushion and thickest at the apex portion of the cushion.

7. As a new article of manufacture, a breast shield to overlie the apex portion only of the

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breast when inserted between the breast and the pointed breast cup of a garment, said shield comprising a foundation sheet of hollow conical form to engage and fill out the point of the cup and a conical cushion of soft material located in the hollow of the foundation sheet to engage the apex of the breast, the walls of the cushion being tapering in cross section and being thinnest at the peripheral portions of the cushion and thickest at the apex portion of the cushion and the periphery of the cushion being of greater diameter than the periphery of the foundation sheet so that the peripheral edges of the cushion extend beyond the said foundation sheet.

MARY W. WARNER.

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