May 4, 1965 D. J. CANNATA 3,181,536

LAMINATED BRASSIERE PAD

Filed Feb. 4, 1963

Fig. 1.

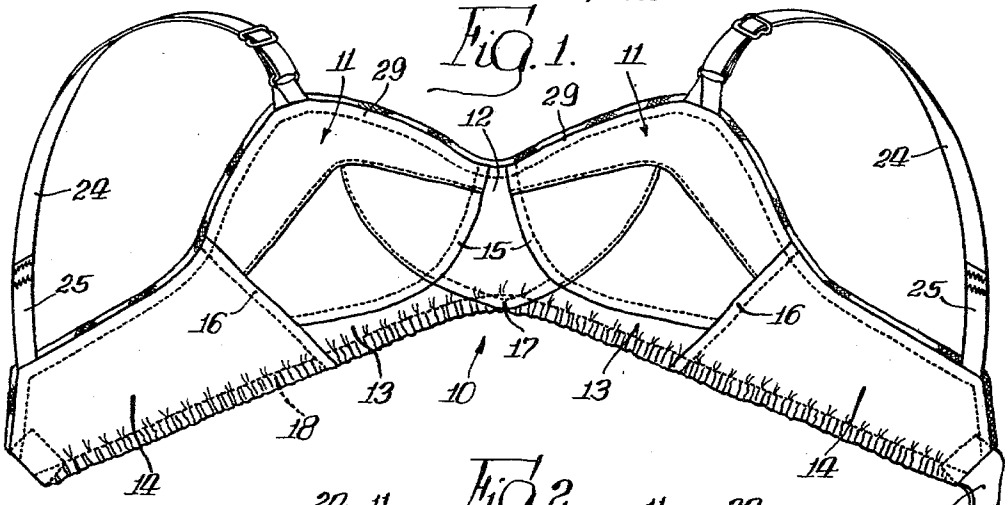


Fig. 2.

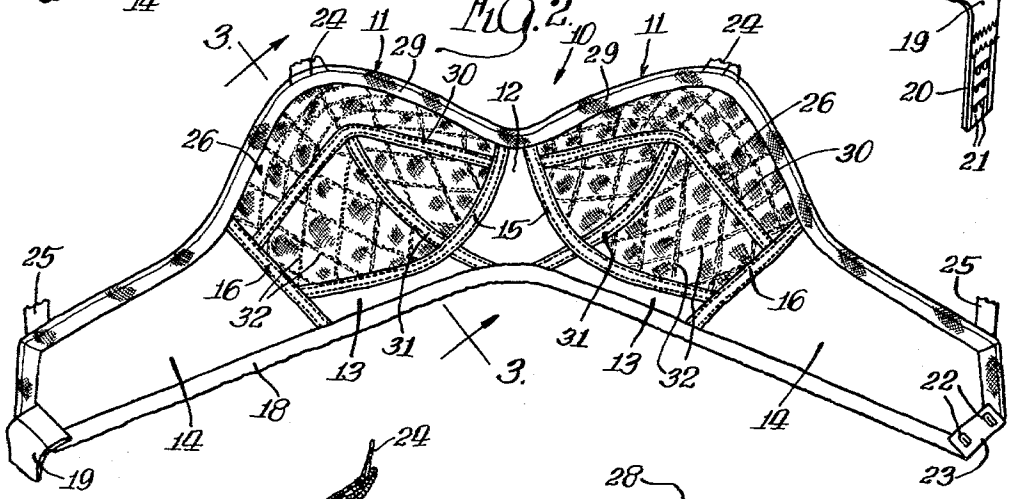


Fig. 3.

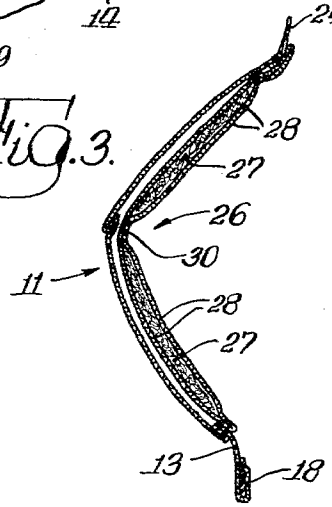


Fig. 4.

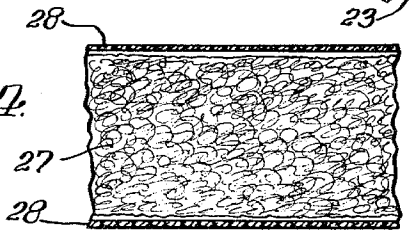
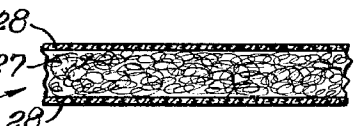


Fig. 5.



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United States Patent Office 3,181,536 Patented May 4, 1965

3,181,536

LAMINATED BRASSIERE PAD

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Filed Feb. 4, 1963, Ser. No. 255,764
3 Claims. (Cl. 128—481)

My present invention relates generally to brassieres and more particularly to a novel form of pad member for use in connection with the cups of brassieres.

Many brassieres presently on the market have cups in which are disposed or secured rubber pad members for providing body support and shape. After repeated washings, these rubber pads tend to lose their resilience and develop permanent surface wrinkles or creases. Such deterioration of the rubber pads causes discomfort to the wearer and detracts from the desired smooth appearance of this and the overlying outer garments.

It is an object of my present invention to provide pad members for the cups of brassieres which do not have the disadvantages of existing rubber pads. To this end I provide a pad member that comprises an intermediate layer of downy material sandwiched between inner and outer layers of fabric. Preferably, the layer of downy material is Dacron batting in compressed resilient form, and the fabric is nylon tricot. I have found that a pad of this construction embodied in a brassiere will withstand long usage and repeated washings without losing resilience and without appreciable wrinkling or creasing.

As a feature of my present invention, the layers of fabric of the pad member are contacted to the opposed sides of the downy material by adhesive applied in pattern form whereby a design is registered on the fabric and a quilting effect is imparted thereto.

Now in order to acquaint those skilled in the art with the manner of constructing and using brassieres in accordance with the principles of my present invention I shall describe in connection with the accompanying drawing a preferred embodiment of my invention.

In the drawing:

FIGURE 1 is a front view of a brassiere embodying the principles of my present invention;

FIGURE 2 is a rear or body side view of the brassiere of FIGURE 1;

FIGURE 3 is a sectional view of one of the cups and associated pad member of the brassiere of FIGURE 2, taken substantially along the line 3—3 in FIGURE 2, looking in the direction indicated by the arrows;

FIGURE 4 is an enlarged fragmentary elevational view of the assembled elements of the pad member of my present invention prior to compression and lamination; and

FIGURE 5 is a fragmentary elevational view of the elements of FIGURE 4 after they have been compressed and laminated into pad form suitable for use in a brassiere.

Referring now to FIGURES 1 and 2, there is shown a brassiere **10** comprising a pair of cups **11**, a central insert member **12**, a pair of lower insert members **13**, and a pair of back bands **14**. The lower portion of each cup **11** is secured by a stitched seam **15** to the upper side edge of the insert **12** and to the upper edge of the adjacent insert **13**. The outer side portion of each cup **11** and the outer end portion of each lower insert **13** are secured by a stitched seam **16** to the inner end of the adjacent back band **14**. The inner end portions of the lower inserts **13** are secured by a stitched seam **17** to the lower portions of the central insert member **12**. The described parts of the brassiere **10** may be fabricated of a substantially solid weave material as shown or of a lace material if desired.

A strip of elastic material **18** is stitched in position along the inside lower edges of the inserts **13** and back

bands **14** and is adapted to stretch in a direction extending about the body of the wearer. An elastic strap **19** is secured by stitching to the outer end of one of the back bands **14** and is adapted to stretch in the same direction as the strip **18**. A pad **20** is stitched to the outer end of the strap **19** and has secured thereto a plurality of eyes **21** for the reception of hooks **22** secured to a pad **23** stitched to the outer end of the other back band **14**. The eyes **21** are arranged in several series spaced apart lengthwise of pad **20** and provide, in cooperation with the hooks **22**, adjustable means for securing the brassiere about the wearer's body in a known manner. Adjustable shoulder straps **24**, having elastic inserts **25**, are secured to the cups **11** at the tops thereof, and to the upper edges of the back bands **14** adjacent their outer ends.

Secured within each of the cups **11** is an inner pad member **26** which, as shown in FIGURE 3, comprises an intermediate layer of downy material **27** sandwiched between inner and outer layers of fabric **28**. Each pad **26**, as shown in FIGURE 2, is secured solely about its periphery to the adjacent cup **11** by means of the lower stitched seam **15**, the side stitched seam **16**, and a stitched seam **29** extending along the upper portion of the cup **11**. Although each pad **26** may be formed of segments secured together by stitched seams **30** and **31**, it is to be noted that these seams are not connected to the cup **11**. In the preferred embodiment of pad member **26**, the downy material **27** is processed spun Dacron batting and the fabric **28** is 15 denier nylon tricot.

The pad member **26** or the segments thereof are cut from a laminated sheet fabricated in the following manner. First, a latex base adhesive is applied by a roller coater to one side of each of two layers of nylon tricot **28**. For a purpose to be noted hereinafter, the roller coater has a diamond-shaped grooved roller for applying the adhesive in a pattern form. Then the sides of the tricot with adhesive are placed in contact with the opposite sides of a layer of uncompressed Dacron batting **27** approximately 1¼ to 1½ inches thick. By way of illustration and not limitation, the layers of tricot and batting may be 18 inches wide and 48 inches long. This assembly of pad elements or sandwich, which is shown in FIGURE 4, is next placed in a heated press wherein it is compressed to approximately ¼ inch while being heated at approximately 300 degrees Fahrenheit for 40 seconds. Heating of the pad serves to cure the adhesive and to laminate the nylon tricot to the Dacron batting. Finally, upon removal from the press, the laminated sheet expands slightly in thickness to approximately ⅜ inch. The resultant product, which is shown in FIGURE 5, has a degree of resiliency that particularly adapts it for use as a pad member in a brassiere.

From the foregoing description, it will be readily appreciated that I have provided a novel form of pad member **26** for a brassiere. The pad member **26** is comprised of a compressed resilient layer of Dacron batting **27** and a layer of nylon tricot **28** contacted to each side of the batting **27** by adhesive. The adhesive is applied in pattern form by a grooved roller whereby a design **32**, as shown in FIGURE 2, is registered on the tricot and a quilting effect is imparted thereto. Since the pad member **26** is secured to the adjacent cup **11** solely about its periphery, the number of stitched seams joining the pad **26** and cup **11** is less than in existing brassiere constructions. The pad member of my invention provides improved body support and shape, cooperates with a brassiere in forming a comfortable garment, and withstands long usage and repeated washings without losing resilience and without appreciable wrinkling or creasing.

While I have shown and described what I believe to be a preferred embodiment of my present invention, it will

be understood by those skilled in the art that various modifications and rearrangements may be made therein without departing from the spirit and scope of my invention.

I claim:

1. For use in a brassiere having a pair of cups, the combination of a pair of inner pad members one each for each of said cups, and each of said pad members being comprised of a layer of downy material and a layer of fabric contacted to each side of said downy material by adhesive applied in pattern form whereby a design is registered on said fabric and a quilting effect is imparted thereto.

2. For use in a brassiere having a pair of cups, the combination of a pair of inner pad members one each for each of said cups, and each for said pad members being comprised of a compressed resilient layer of downy material and a layer of fabric contacted by adhesive to each side of said layer of downy material.

3. For use in a brassiere having a pair of cups, the combination of a pair of inner pad members one each for each of said cups, and each of said pad members being comprised of a compressed resilient layer of Dacron batting and a layer of nylon tricot contacted to each side of said batting by adhesive applied in pattern form whereby a design is registered on said tricot and a quilting effect is imparted thereto.

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