

Dec. 30, 1952

W. D. BROWN

2,623,211

BRASSIERE CONSTRUCTION

Filed Aug. 30, 1949

Fig. 1.

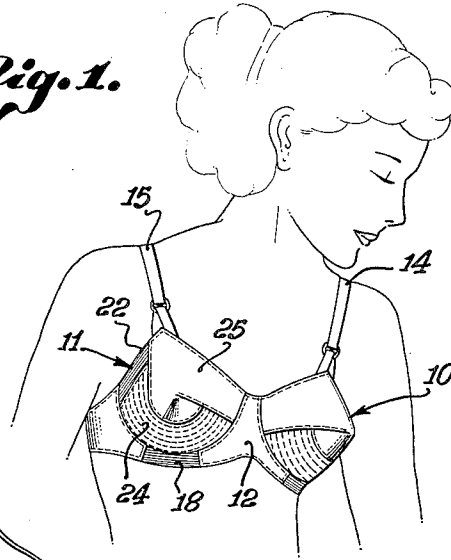


Fig. 2.

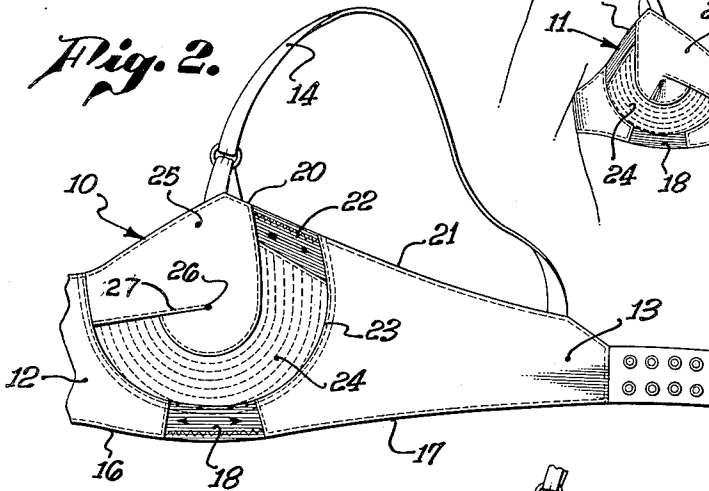


Fig. 3.

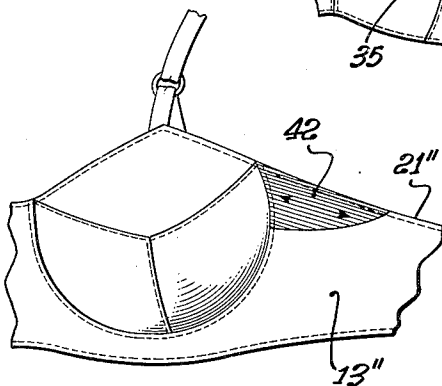
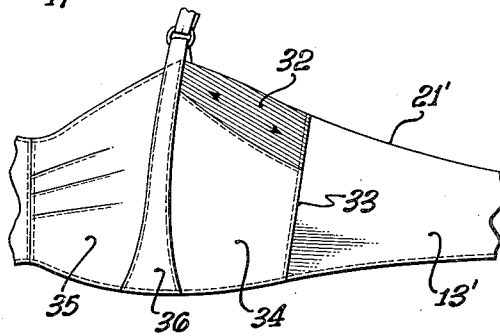


Fig. 4.

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2,623,211

BRASSIÈRE CONSTRUCTION

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Application August 30, 1949, Serial No. 113,221

2 Claims. (Cl. 2—42)

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The present invention pertains to improvements in brassière construction and is particularly directed to a construction which imparts greater comfort to the wearer and does not chafe or cut into the areas adjacent the breast which often enlarge due to physiological changes or by reason of bodily motion.

Although brassières are an article of attire used extensively for many years, no solution has been found heretofore to the problem of cutting and chafing of the skin of the wearer in the regions immediately adjacent the outer portion of each breast toward the underarm portions of the body. Many women have been marked in a semi-permanent manner by the cutting action of the upper margin of the brassière against the skin in these outward portions of their anatomy. In an ordinary brassière the circumferential tension of the band extending beneath the breast cups and continuing across the back to the usual rear closure is transmitted along the upper margin of such band to the shoulder straps connected above the breast-receiving pockets. As a result, the upper margin of the brassière is relatively taut. Various glands are traversed by this margin, among them lymph glands and a portion of the mammary glands. Furthermore, the pectoral muscle extends downwardly in this area, this muscle having the ability to enlarge very materially in response to an upward movement of the arms. When these muscles enlarge, the upper margin of the brassière cuts into the skin overlying the muscles. During the menstrual period and by reason of other physiological conditions, the glandular structure of the breast enlarges, and again the upper margin of the brassière cuts into the skin of the wearer in the above-described areas. Furthermore, in many women, fatty tissue accumulates in the areas immediately adjacent and to the side of each breast and makes the wearing of an ordinary brassière very uncomfortable.

The present invention is directed to a brassière construction which includes means capable of accommodating the enlargement of the glands as well as muscular enlargement and prevents the wearer from being chafed, cut, indented, or otherwise rendered uncomfortable by the brassière. Generally stated, the invention pertains to the use of an insert in the upper margin of the brassière between each shoulder strap and underarm portion, said insert being above a horizontal plane extending through the apexes of the breast-receiving cups, said insert being of resilient material stretchable in a downwardly and outwardly inclined direction and connected to the upper section of the underarm portion of a brassière, whereby tension in the underarm portion is yieldingly transmitted along the upper margin of the brassière. By the inclusion of such insert, the tension necessary to maintain the brassière in

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position upon the body is transmitted in a normal manner along the zone beneath the breast-receiving pockets, while the insert yields in a zone above the apexes of the pockets to the glandular and muscular expansion hereinabove mentioned.

It is an object of the invention, therefore, to disclose and provide an improved brassière construction.

Another object of the invention is to disclose and provide a construction of a brassière or similar undergarment whereby such undergarment is prevented from chafing or cutting into the skin of the wearer by reason of glandular or other enlargement of the tissues underlying the upper marginal edge of a brassière.

These and various other objects will become apparent to those skilled in the art from the following description. Although the invention is not limited to brassières as separate articles, but is actually applicable to any garment including breast-receiving pockets (such as foundation garments, swim suits, etc.), the description will, for exemplary purposes, specifically refer to brassières. In order to facilitate understanding, reference will be had to the appended drawings, in which:

Fig. 1 is a three-quarter front view of a complete brassière embodying the present invention, in position upon the body of a wearer.

Fig. 2 is a plan view of one half of a brassière in extended form, said brassière illustrating one embodiment of the present invention.

Fig. 3 is an extended plan view of one half of another brassière embodying a modified form of the invention.

Fig. 4 is an extended plan view of one half of a brassière illustrating a still further modification of the invention.

The brassière illustrated includes the breast-receiving cups 10 and 11 connected by a sternum piece 12, the outer portions of the cups being connected to underarm portions, such as 13, such underarm portions terminating in the rear in suitable closure means of any usual type. Shoulder straps 14 and 15 extend over the shoulders, the front portion of each shoulder strap being connected to the upper margin of the cup above the apex thereof while the rear end of each shoulder strap is connected to a suitable point on the rearward extension of the underarm portions.

It will be noted that the lower margin of the brassière includes the bottom edge of the sternum piece 12, indicated at 16, the lower margin of the underarm portion 13 (indicated at 17) and the lower margin of an element 18 positioned immediately beneath the cup. In some types of brassières, a separate band extends from the underarm portion 13 to the corresponding underarm portion on the other side of the brassière. A constricting tension is exerted around the body

of the wearer by the brassière adjacent such lower margin and beneath the breast-receiving cups. In many instances, the rear closure means are carried by a strip of elastic so as to impart some minor yield and permit the body to bend without undue restraint. In the form of brassière illustrated in Figs. 1 and 2, the element 18 is made of elastic, stretchable material in order to accommodate a fullness of the diaphragm.

The upper margin of the brassière includes the upper marginal edge 20 of the breast-receiving cup and the upper marginal edge 21 of the underarm portion 13. This is the marginal edge which, in normal brassières, cuts into the skin of the wearer by reason of glandular engorgement and muscular enlargement. The discomfort resulting from such cutting and chafing is eliminated by the construction illustrated in the following manner. An insert 22 of resilient, elastic, stretchable material is incorporated into the brassière and forms a part of the upper marginal edge thereof. In Figs. 1 and 2, such insert 22 is shown as being a part of the cup 10 and extends from the upper marginal edge of the cup on the outer side thereof in a downward and outward direction between the point of connection between the shoulder strap 14 and the underarm portion 13. It will be noted that the upper section of the upwardly extending marginal edge 23 of the underarm portion 13 is connected to the elastic insert 22, while the lower section of the upwardly extending frontal margin 23 is connected directly to the pliant, but non-stretchable, portion of the cup. The cup 10 in the form illustrated is therefore composed of the elastic insert 22, a substantially semicircular member 24, reinforced with stitching, and J-shaped member 25 which forms the inner central portions of the cup. It is to be understood that these various portions 22, 24 and 25 are made so as to impart a cup shape to the breast-receiving pocket, the apex being located at about 26. The J-shaped member 25, when in flat or extended form, includes margins which are at an acute angle to each other; these margins are connected as at 27 to impart a cup shape to the member around the apex 26.

When in use, enlargement of the lymph glands or musculature extending toward the shoulders of the wearer and to the side of the breast is yieldingly accommodated by the elastic insert 22. Circumferential tension applied to the brassière by the underarm portions 13 is transmitted to the elastic insert 22 and since such insert is stretchable in a direction parallel to the upper edge of the brassière (in a downward and outwardly inclined direction from the shoulder strap 14) no abrasion or indentation of the skin of the wearer can take place.

Fig. 3 illustrates a modified form of invention wherein the entire breast-receiving pocket is composed of an inner portion 35, an outer portion 34 and band-like member 36 which traverses the entire pocket and may continue upwardly in the form of a shoulder strap. The underarm portion 13' is provided with the upwardly directed front edge 33, the lower section thereof being directly connected to the section 34 of the pocket, whereas the upper section of such margin 33 is connected to an insert 32 extending between the shoulder strap member 36 and the underarm portion 13'. It has been found desirable to make such insert slightly wider adjacent the underarm portion 13' than adjacent the shoulder strap. The insert 32 is stretchable in a downwardly and outwardly

inclined direction and forms an integral part of the upper margin of the brassière.

It will be noted that the elastic inserts 22 and 32 are positioned above a horizontal plane extending through the apexes of the breast-receiving pockets.

A still further modification of the invention is illustrated in Fig. 4, wherein a three-piece pocket is connected to the underarm portion 13'', the upper marginal edge 21'' of such underarm portion being interrupted to accommodate an elastic insert 42 extending between the main body of the underarm portion and the outer edge of the breast-receiving cup. Those skilled in the art will appreciate that such elastic inserts as 22, 32 and 42 may be combined, if desired, and their extent and particular configuration can be varied, depending upon the general weight classification of the wearers by whom the brassières are to be worn.

All changes and modifications coming within the scope of the appended claims are embraced thereby.

I claim:

1. In a brassière construction including underarm portions connected to breast-receiving cups, the combination of: a pair of breast-receiving cups, each of said cups being composed of a J-shaped piece of material forming a conical element constituting the inner and central portion of the cup, including an apex and an area completely around the apex; a virtually semi-circular member connected to said J-shaped piece and forming the lower side of the cup and the outer side thereof but terminating short of the upper margin of the breast receiving cup; an underarm portion connected to the outer margin of said semi-circular member and extending upwardly therebeyond; a shoulder strap attached to the J-shaped piece of material; and a strip of elastic resilient material connected to the J-shaped piece, the upper margin of the semi-circular member and the underarm portion.

2. In a brassière construction including underarm portions connected to breast-receiving cups, the combination of: a pair of breast-receiving cups, each of said cups being composed of a J-shaped piece of material, which in extending form includes margins at an acute angle to each other, said margins being stitched together and said J-shaped piece forming a conical element constituting the inner and central portion of the cup, including an apex and an area completely around the apex; a virtually semi-circular member connected to said J-shaped piece and forming the lower side of the cup and the outer side thereof but terminating short of the upper margin of the breast-receiving cup; an underarm portion connected to the outer margin of said semi-circular member and extending upwardly therebeyond; a shoulder strap attached to the J-shaped piece of material; and a strip of elastic resilient material connected to the J-shaped piece, the upper margin of the semi-circular member and the underarm portion.

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