Oct. 9, 1951 I. KIVO 2,570,819

BRASSIERE CONSTRUCTION.

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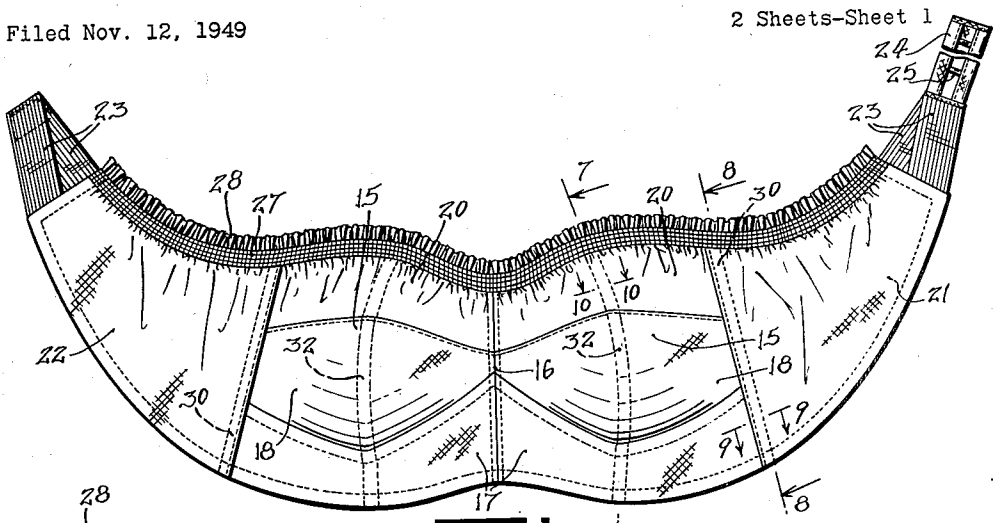


FIG. 1.

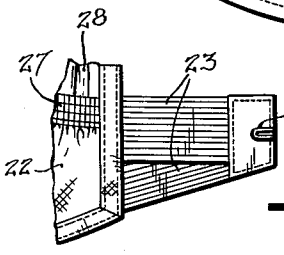


FIG. 4.

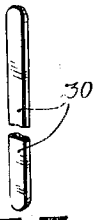


FIG. 5.

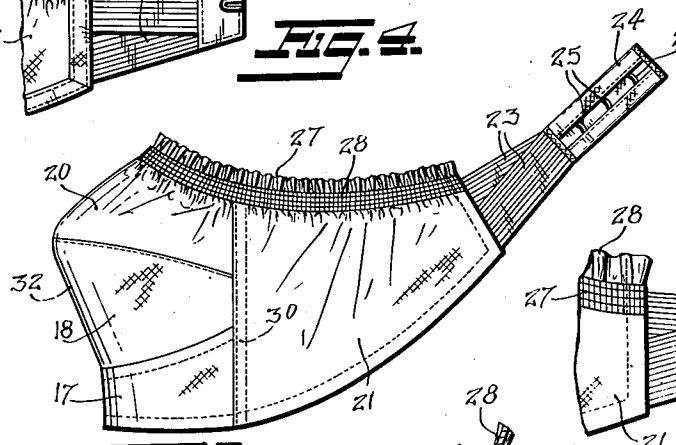


FIG. 2.

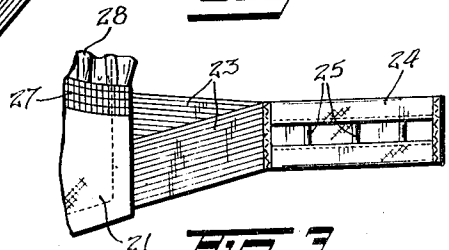


FIG. 3.

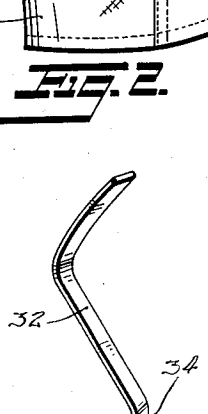


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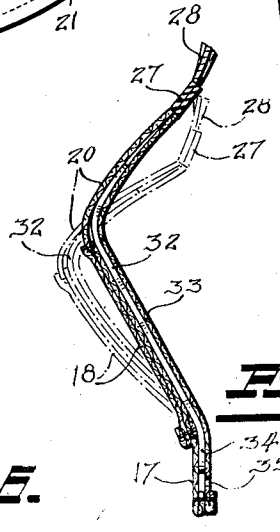


FIG. 7.

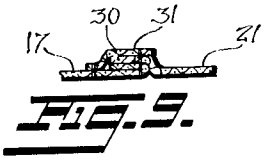


FIG. 9.

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BRASSIERE CONSTRUCTION

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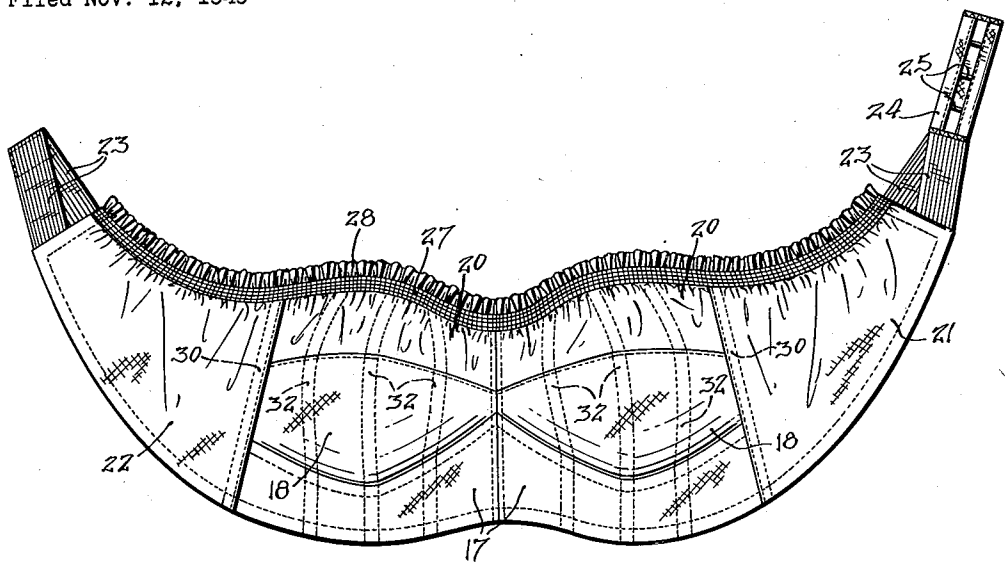


FIG. 11.

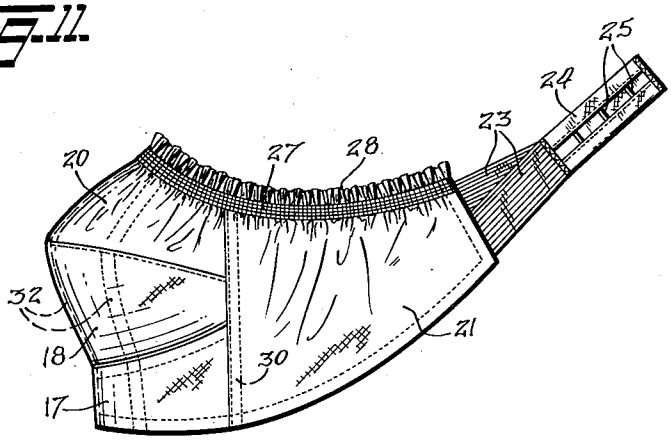


FIG. 12.

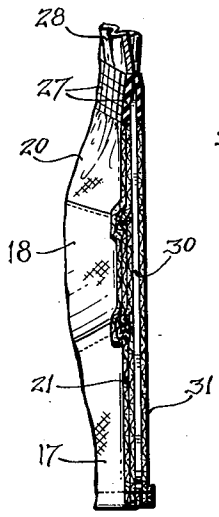


FIG. 8.

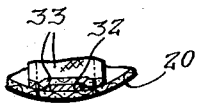


FIG. 10.

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UNITED STATES PATENT OFFICE

2,570,819

BRASSIÈRE CONSTRUCTION

Irving Kivo, Brooklyn, N. Y.

Application November 12, 1949, Serial No. 126,764

4 Claims. (Cl. 2—42)

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This invention relates to new and useful improvements in brassières, and has more particular reference to a strapless brassière.

Strapless brassières are known which are maintained in place by a body encircling belt and in which bones or flexible stiffening members are utilized as auxiliary bust pocket forms and supports. These prior brassières, however, have been found unsatisfactory in that the tightness of the body encircling belt flattened the busts against the body, and where boning was utilized to prevent this, the highly desired appearance of fullness above the nipple of the bust could not be achieved. Further, where medial, vertical boning was utilized, the boning was pressed tightly against the nipple of the bust irritating it. Furtherfore, those bones which were straight had a natural tendency to assume their straight condition lifting the top and bottom edges of the brassière away from the chest. Thus, the bust shaped the straight bones of those prior art brassières resulting in a garment which was uncomfortable to wear and often injurious to the breasts.

One object of the invention is the provision of a strapless brassière which is held in place by a body encircling member and yet will support the breasts in an attractive and upright position, with the desired appearance of fullness in their upper portions.

Another object of the invention is the provision of a strapless brassière utilizing vertical, medial bones preformed to provide the desired appearance of bust fullness and to provide clearance for the nipples of the breasts, said bones being removable to allow their being replaced by others having different, preformed shapes.

Another object of the invention is to construct a brassière as described which is simple and durable, and which can be manufactured at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a front view of a strapless brassière constructed in accordance with the invention and illustrated in open position.

Fig. 2 is a side view showing the shape assumed by the brassière when worn.

Fig. 3 is a fragmentary enlarged view of one end of the body encircling band of the brassière

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and illustrates the means for connecting said end with the other end.

Fig. 4 is a fragmentary enlarged view of the other end of said band and illustrates the end connecting means associated therewith.

Fig. 5 is a perspective view partly broken away of a bone utilized in the brassière.

Fig. 6 is a perspective view of a preformed bone utilized in the brassière.

Fig. 7 is a sectional view on line 7—7 of Fig. 1, the parts being shown in normal position in dot and dash lines and in the position they assume when the brassière is worn in full lines.

Fig. 8 is a sectional view on line 8—8 of Fig. 1.

Fig. 9 is a fragmentary sectional view on line 9—9 of Fig. 1.

Fig. 10 is a fragmentary sectional view on line 10—10 of Fig. 1.

Fig. 11 is a view similar to Fig. 1 but of a modified brassière.

Fig. 12 is a view similar to Fig. 2 but of the modified brassière.

The brassière shown herein for the purpose of illustrating the invention comprises a bust portion having a pair of breast receiving cups 15 (Figs. 1 and 2) individually shaped to receive the breasts of the wearer, connected together either integrally or by stitching reinforced by tape as at 16. Each of the cups 15 is formed of three panels, namely a lower body engaging panel 17 (Figs. 1 and 2), a middle bust supporting panel 18, which preferably is made of double thickness (Fig. 7), and an upper panel 20. The uppermost panel 20 has its lower edge in the form of an inverted V, the lowermost panel 17 has its upper edge in the form of a V and the center panel 18 has its upper and lower edges formed to complement the lower and upper edges respectively of the panels 20 and 17.

At their outer edges, the three panels of each cup 15 are secured to a body encircling member 21 or 22, the upper and lower edges of each of which converge slightly as they extend away from the cup 15. In order to provide the members 21 and 22 with a certain amount of resiliency each has stitched to its free end a loop 23 of elastic ribbon (see also Figs. 3 and 4). To each of said loops is secured a short strip of cloth 24, the one strip having a plurality of hook eyes 25 attached thereto (Fig. 3) and the other having a hook 26 attached thereto (Fig. 4) said hook and eyes being utilized to fasten the members 21 and 22 together in the usual manner.

The upper edges of the cup panels 20 are arched upward from their proximate ends to the

midpoints of the panels (Figs. 1 and 2) and thence downward to join the members **21** and **22**. A pair of elastic strips **27** are secured to the upper edge of the brassière, that is to say, the upper edges of the panels **20** and the members **21** and **22** (Figs. 1, 7 and 8), said strips in turn having a decorative ruffled tape **28**. The elastic strips **27** are stretched in donning the brassière and act when the brassière is in place to pull the upper edges of the cups **15** inwardly and downwardly against the wall of the chest immediately above the breasts.

At the outer edge of each cup **15**, right at the point of juncture thereof with the member **21** or **22**, there is provided a substantially vertical bone **30** (Figs. 1, 2, 5 and 6), said bone extending from the upper edge of the cup to the lower and being enclosed in a pocket formed by the joined edges of the cup and the member **20** or **21** and a strip of tape **31** (Fig. 9) secured, the one edge to the member and the other edge to the cup.

Medial of each of the cups **15** there is provided a preformed flexible bone **32**, said bone fitting in a pocket formed by the material of the cup and a strip of tape **33** secured thereto (Fig. 10). At its lower end bone **32** is provided with a vertical portion **34**, above which it curves outward and upward for the greater part of its length (Figs. 6 and 7). At the end of said outward and upward curve the bone curves sharply inward and upward for a short distance. When the bone is inserted in its pocket, the upper end of the vertical portion **34** thereof is located substantially in alignment with the upper edge of panel **17** of the cup (Figs. 2 and 7), the apex of the curve of the bone is located substantially at the upper edge of panel **18** and the upper end of the bone is located at a point substantially higher than mid-height of the panel **20**.

When the brassière is in use, the bones **32** are flexed from their normal configuration as shown in Fig. 6 and in dot and dash lines in Fig. 7 to the configuration shown in full lines in Fig. 7, which is caused by the fact that the free top ends of the bones **32**, as the brassière is closed about the body, are caused to ride up the top faces of the breasts. Thus, the bones **32** have a tendency to return to their normal positions holding the top and bottom edges of the brassière against the chest.

The apex of the curve of the bone **32** illustrated in Figs. 6 and 7 is so designed that if used with a breast of the proper contour a clearance space will be provided between the bone retaining tape and the nipple of the breast, the tape contacting the breast above and below the nipple. In order to provide for breasts having contours not suited to the illustrated bone **32**, the tape **33** is foreshortened slightly at its lower end or is provided with a window **35** (Fig. 7) through which the illustrated bone can be removed and a bone with the desired configuration inserted.

It is believed evident from the foregoing that the action of the preformed bones **32** will, as indicated in Fig. 7, support and mold the breasts in such manner that the desired appearance of fullness of the upper parts of the latter is achieved.

In a modification of the invention there may be provided three preformed flexible bones **32** for each of the cups **15** (Figs. 11 and 12), a medial bone as hereinbefore and one spaced on either side thereof. In this construction the remainder of the brassière may be constructed in the same manner as described hereinbefore and the bones may differ from those described only in number.

Generally, this modified form of the brassière is directed for use with the heavier, pendulous type breasts with which greater support and further molding means are required. However, it has been found that either the single bone or three bone type function satisfactorily in the great majority of instances, the former not being limited to use with small breasts nor the latter to large breasts.

The materials utilized in the brassière may be any of those normally used in brassière manufacture.

While the preformed bones are illustrated and described as being used in connection with what are generally known as "strapless" brassières, such showing is by way of illustration only as the preformed bones can also be used in combination with brassières having straps, without departing from the scope and intent of the present invention.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A strapless brassière having two breast receiving cups secured together at their proximate edges, each said cup comprising an upper panel having an inverted V lower edge, a lower panel with a V upper edge and a center panel of double thickness and having its upper and lower edges formed to complement the proximate edges of said upper and lower panels, a pair of body encircling members, one secured to the outer edge of each of said cups, a pair of tape strips, one secured at its one edge to the outer edge of each of said cups and at its other edge to the associated body encircling member to form a pair of pockets, a vertical, flexible, stiffening bone in each said pocket, an elastic strip secured to the top edges of said cups and body encircling members, a vertical taping strip secured to each said cup medial thereof to form a second pair of pockets, and a preformed, flexible bone in each of the latter said pockets, the latter said bones each having a vertical portion at its lower end, an outwardly and upwardly curved portion surmounting said vertical portion and extending throughout the greater part of the length of the bone, and a sharply inwardly and upwardly curved portion surmounting said outwardly curved portion, the upper end of the bone being located substantially below the upper edge of the cup.

2. A strapless brassière comprising a bust encircling body having at the front thereof adjacent breast receiving cups, each of said cups comprising an upper panel having an inverted V lower edge, a lower panel with a V upper edge and a center panel of double thickness having its upper and lower edges formed to complement the adjacent edges of the upper and lower panels, a vertical tape strip secured to the inner face of each of said cups medial thereof forming a pocket, and a preformed flexible bone in each of said pockets, said bones each having a vertical portion at its lower end, an outwardly and upwardly curved portion continuing from the top end of said vertical portion and extending throughout the greater part of the length of the

bone, and a sharply inwardly and upwardly curved portion continuing from the upper end of said outwardly curved portion with the junction of said outwardly and inwardly curved portions being located at about the center of each of said cups.

3. A strapless brassière comprising a bust encircling body having at the front thereof adjacent breast receiving cups, each of said cups comprising an upper panel having an inverted V lower edge, a lower panel with a V upper edge and a center panel a double thickness having its upper and lower edges formed to complement the adjacent edges of the upper and lower panels, a vertical tape strip secured to the inner face of each of said cups medial thereof forming a pocket, and a preformed flexible bone in each of said pockets, said bones each having a vertical portion at its lower end, an outwardly and upwardly curved portion continuing from the top end of said vertical portion and extending throughout the greater part of the length of the bone, and a sharply inwardly and upwardly curved portion continuing from the upper end of said outwardly curved portion with the junction of said outwardly and inwardly curved portions being located at about the center of each of said cups, said inwardly curved portions having their free top ends spaced below the upper edges of said cups.

4. A strapless brassière comprising a bust encircling body having at the front thereof adjacent breast receiving cups, each of said cups comprising an upper panel having an inverted V lower edge, a lower panel with a V upper edge and a center panel of double thickness having its

upper and lower edges formed to complement the adjacent edges of the upper and lower panels, a vertical tape strip secured to the inner face of each of said cups medial thereof forming a pocket, and a preformed flexible bone in each of said pockets, said bones each having a vertical portion at its lower end, an outwardly and upwardly curved portion continuing from the top end of said vertical portion and extending throughout the greater part of the length of the bone, and a sharply inwardly and upwardly curved portion continuing from the upper end of said outwardly curved portion with the junction of said outwardly and inwardly curved portions being located at about the center of each of said cups, vertical tape strips secured to the inner faces of said cups spaced from and on opposite sides of said first-mentioned tape strips forming pockets, and a flexible stiffening bone in each of said latter-mentioned pockets.

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