Dec. 24, 1963 A. L. MEANS ETAL 3,115,141

BRASSIERE STRUCTURE

Filed Aug. 31, 1961 2 Sheets-Sheet 1

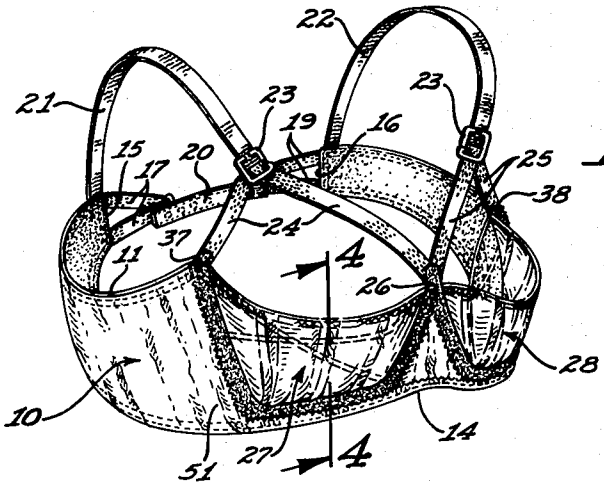


FIG. 1

FIG. 5

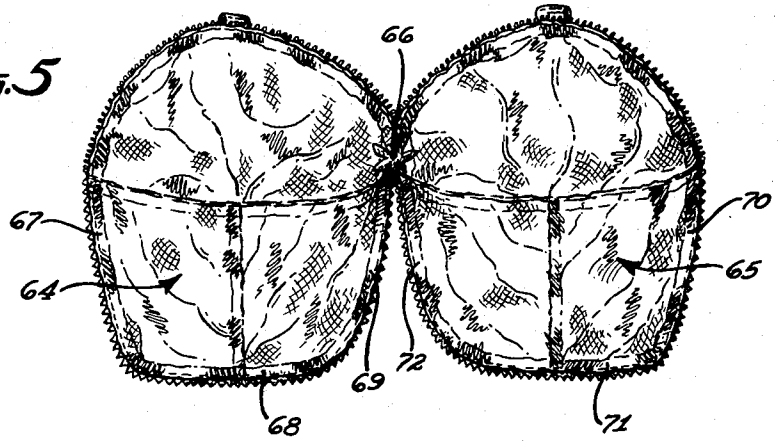
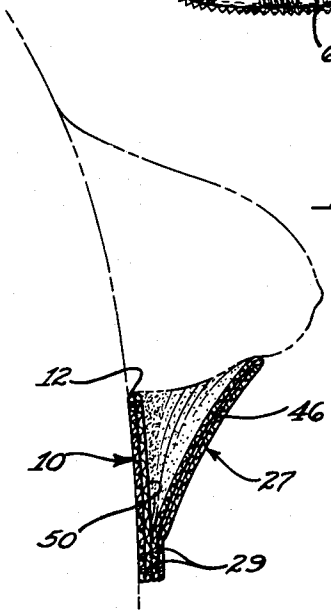


FIG. 4



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BRASSIERE STRUCTURE

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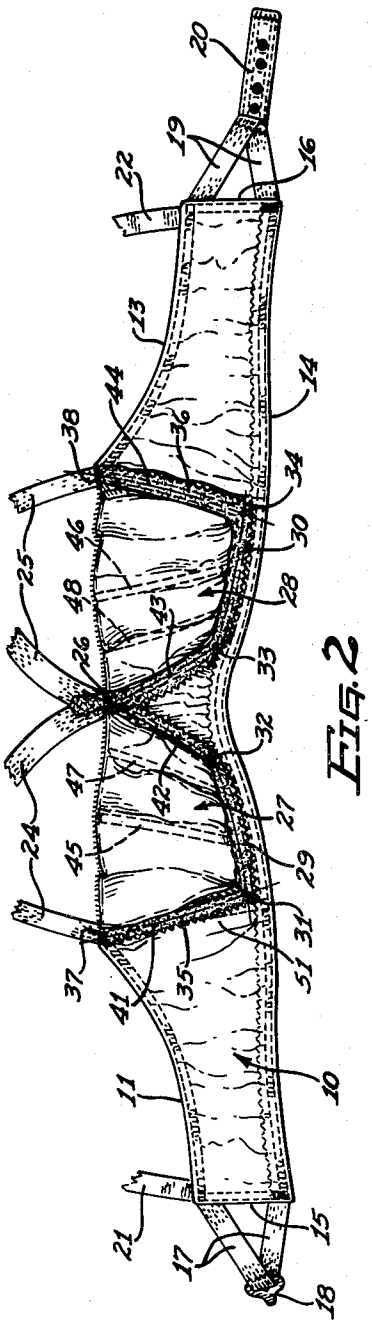

Fig. 2

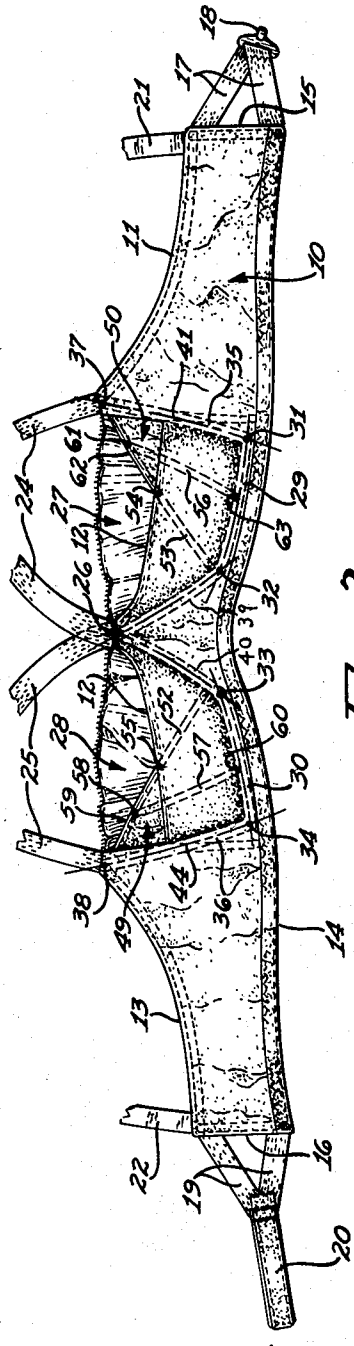

Fig. 3

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BRASSIERE STRUCTURE

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6 Claims. (Cl. 128—484)

This invention relates to brassieres and the like and is particularly directed to a garment which is simple in construction, highly efficient in performing its intended function, and which is comfortable to wear.

An object of this invention is to provide a brassiere having a particular structural make-up so as to provide a comfortable uplift effect for women's breasts.

Another object is to provide a particularly constructed brassiere which remains firmly in place on the wearer while providing a comfortable and good fitting condition for all movements of the wearer.

A further object of this invention is to provide a particularly constructed brassiere which is highly durable under severe usage and laundering.

Further features and advantages of this invention will appear from a detailed description of the drawings in which:

FIG. 1 is a perspective view of a brassiere structure incorporating the features of this invention.

FIG. 2 is a stretched out outside view of the brassiere shown in FIG. 1.

FIG. 3 is a stretched out inside view of the brassiere shown in FIGS. 1 and 2.

FIG. 4 is an enlarged fragmentary view on the line 4—4 of FIG. 1.

FIG. 5 is a front perspective view of a covering adapted to be attached to the brassiere of FIG. 1.

As an example of one embodiment of this invention there is shown a brassiere comprising a band 10 which is adapted to tightly encircle the rib cage of the wearer immediately below the breasts and having the top edge 11—12—13, the bottom edge 14, and the ends 15 and 16. To the end 15 is fixed the tension straps 17 having a suitable hook 18 fixed to the joined outer ends thereof while the other end 16 is provided with straps 19 to the outer joined ends of which is fixed the usual eyelet strip 20 cooperating with the hook 18 to secure the band 10 to the wearer's body.

Attached to the upper edges 11 and 13 of the band adjacent the ends 15 and 16 are the shoulder straps 21 and 22 which are connected at their other ends to suitable adjustable clamps 23 to the intermediate portions of the chest straps 24 and 25 which are joined together and have their inner ends fixed to the common mid-point 26 of the upper edge 12—12 of the band while the other outer ends of the straps 24 and 25 are fixed to the upper edge of the band at the points 37 and 38 at the junction of the upper edges 11—12 and 13—12 of the band 10.

Cups 27 and 28, preferably of double thickness material are sewn to the front face of the band 10 as best seen in FIG. 2. The lower portions of the cups terminate in horizontal straight line seams 29 and 30 extending respectively between the outer end points 31 and 32 the inner end points 33 and 34. The outer side seams 35 and 36 extend in a substantially straight line slopingly upwardly to the points 37 and 38 of attachment of the straps 24 and 25. The inner side seams 39 and 40 converge upwardly in substantially straight lines from points 32 and 33 to the common mid point 26 of attachment of the straps 24 and 25 with the upper edge of the band 10. As a result, the pulling forces applied at the points 37—26—38 by the straps 24—25 are distributed in straight lines 41—42—43—44 to the lower points 31—32—33—34 of the band without affecting the normal configuration of the cups 27 and 28 as would be the case in more conventional structures wherein half cups are attached to the band with arc-like seams of semi-arcular shape. If desired, vertically disposed staves 45 and 46 may be sewn within the cups 27 and 28 disposed laterally substantially intermediate the outer side seams 35 and 36 and inner side seams 39 and 40. Diagonally upwardly converging staves 47 and 48 may also be provided in the cups 27 and 28 located intermediate the staves 45 and 46 and the inner side seams 39 and 40 for greater rigidity and support for the cups.

In addition to the tension absorbing structure for the band 10 just described, there is provided further tension controlling structure comprising triangular shaped gusset pieces defined by the points 33—34—38 and 31—32—37. These gusset pieces 49 and 50 are sewn to the front face of the band 10 at the seams 29, 30, 35 and 36 and located behind the cups 27 and 28. The remaining legs 33—38 and 32—37 of the gussets are sewed at the seams 52 and 53 to the front face of the band 10, extending between the points 32—54 and 33—55 respectively. Thus tension pulling forces applied to the band 10 at points 37 and 38 by straps 24 and 25 are deployed along the lines 37—54—32 and 38—55—33 to further control the position of the band 10 on the wearer without distorting the cups 27 and 28 of the brassiere. Staves 56 and 57 may be placed within the gusset members 49 and 50. Stave 57 extends between an intermediate point 58 between points 38—55 of the exposed edge 59 of gusset 49 to an intermediate point 60 between the ends 33—34 of the horizontal seam 30 for the gusset 49. Similarly, stave 56 extends between an intermediate point 61 between points 37—54 of the exposed edge 62 of gusset 50 to an intermediate point 63 between the ends 31—32 of the horizontal seam 29 for the gusset 50 to give additional support and rigidity to the exposed breast contacting edges 59 and 62 of the gussets 49 and 50.

The brassiere shown in FIGS. 1, 2 and 3 may be converted into a fuller and higher cup brassiere through the use of the cover shown in FIG. 5. This cover consists of two cover pieces 64 and 65 joined together at their upper inner edges at the point 66 and having seams 67—68—69 and 70—71—72 conforming to the above described configuration for the seams 35—29—39 and 36—30—40 of the band 10. Appropriate securing means are provided to detachably hold the cover seams to the band seams as required.

While the apparatus herein disclosed and described constitutes a preferred form of the invention, it is also to be understood that the apparatus is capable of mechanical alteration without departing from the spirit of the invention and that such mechanical arrangement and commercial adaptation as fall within the scope of the appendant claims are intended to be included herein.

Having thus fully set forth and described this invention what is claimed and desired to be obtained by United States Letters Patent is:

1. A brassiere comprising a band for encircling the rib cage of the wearer immediately below the breasts, said band having two end sections and two adjacent intermediate sections, each end section having one end free and the other end connected integral with an outer end of one of two adjacent intermediate sections, each inner end of the adjacent intermediate sections being connected to one another, fastening means on the free ends of the band to draw said free ends together to tightly encircle the rib cage of the wearer, a pair of strap assemblies each comprising three strap members which are adjustably connected at a common point, and consist of two short strap members and one long strap member, one strap assembly being joined to each intermediate section

of the band by its two short strap members each of which is joined to the upper edge of each end of the intermediate section, the long strap member being connected to the corresponding free end of the band, a cup disposed in front of each intermediate section and integrally connected to the side and lower edges thereof, a pair of crossed reinforcing seams in each intermediate section, the seams above the point at which they cross forming the top edge of the intermediate section, one of the seams at its upper end being joined to one of the short straps at one end of the intermediate section and the other seam joined to the second short strap at the other end of the intermediate section so that force applied to the band through these straps is exerted in a line along the seams to provide support tension at the top edge of the band across the intermediate section.

2. The brassiere as set forth in claim 1 wherein each intermediate section comprises an outer gusset member and an overlapping inner gusset member, the top edges of which are the said crossed seams.

3. The brassiere as set forth in claim 2 wherein the outer gusset members of the two intermediate sections have a triangular shape and the two inner adjoining gusset members of the two intermediate sections have a top edge which curves down from the juncture with the strap and outwardly across the length of the intermediate section, most of the edge extending in a generally horizontal direction and terminating at approximately the midpoint of the outer edge of the triangular gusset.

4. The brassiere as set forth in claim 3 wherein the triangular gusset has a stay therein of substantial length extending in a generally vertical direction from the top to bottom edge of the gusset.

5. The brassiere as set forth in claim 3 wherein the long strap member has an adjustable fastener adjacent the end thereof through which an elastic chest strap which forms the two short strap members is threaded.

6. A brassiere comprising a band for encircling the rib cage of the wearer immediately below the breasts,

said band having two end sections and two adjacent intermediate sections, each end section having one end free and the other end connected integral with an outer end of one of the two adjacent intermediate sections, each inner end of the adjacent intermediate sections being connected to one another, fastening means on the free ends of the band to draw said free ends together to tightly encircle the rib cage of the wearer, a pair of strap assemblies each assembly comprising a long strap member with an adjustable fastening thereon adjacent one end, and an elastic chest strap threaded through said fastening and having its ends joined to each intermediate section of the band wherein one end of said elastic chest strap is joined to the upper edge of the intermediate section at one end thereof, and the other end of said elastic chest strap is joined to the upper edge of the intermediate section at its other end, the other end of the long strap member being connected to the corresponding free end of the band, a cup disposed in front of each intermediate section and integrally connected to the side and lower edges thereof, a pair of crossed reinforcing seams in each intermediate section, the seams above the point at which they cross forming the top edge of the intermediate section, one of the seams at its upper end being joined to one end of the elastic strap at one end of the intermediate section and the other seam joined to the other end of the elastic strap at the other end of the intermediate section so that force applied to the band through these straps is exerted in a line along the seams to provide support tension at the top edge of the band across the intermediate section.

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