Dec. 16, 1958 P. J. STEINMETZ 2,864,375

BRASSIERE

Filed May 7, 1956

Fig. 1.

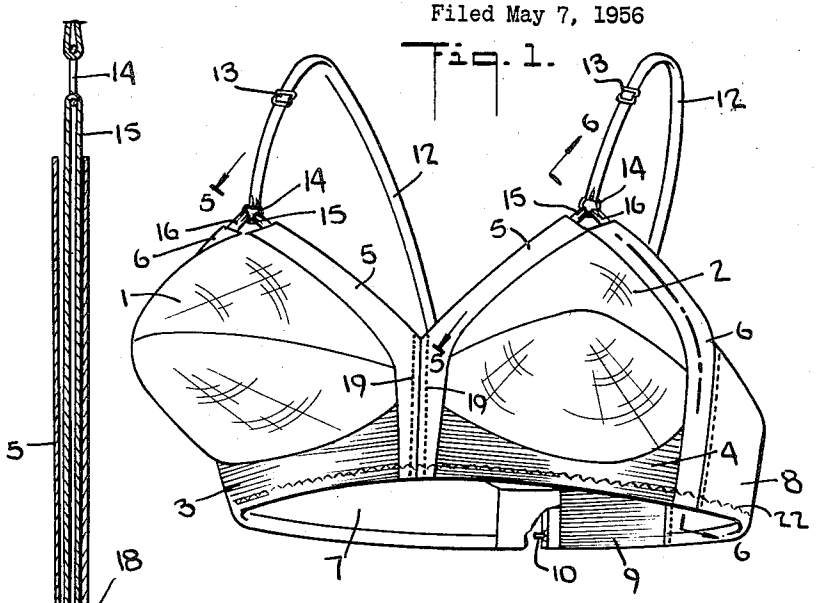


Fig. 5.

Fig. 2.

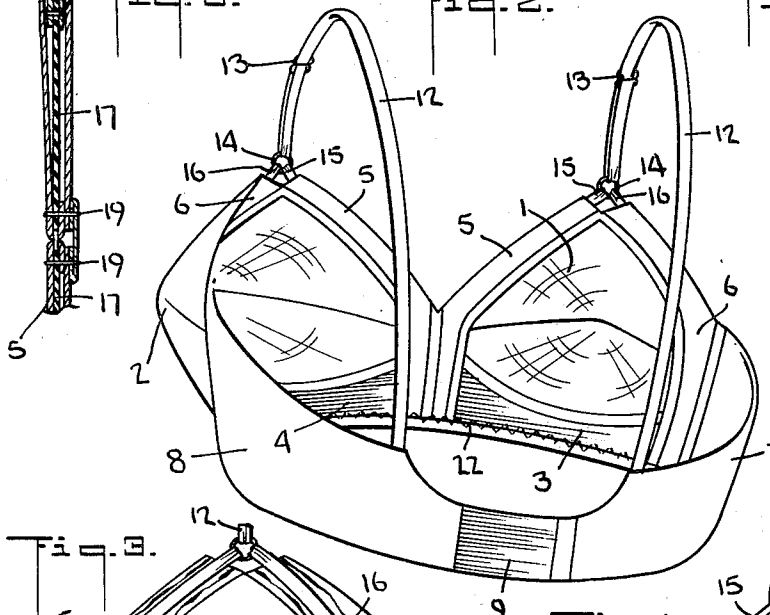


Fig. 6.

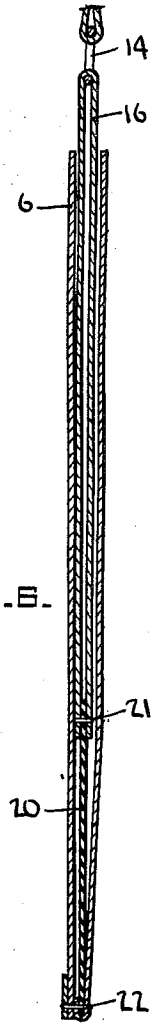


Fig. 3.

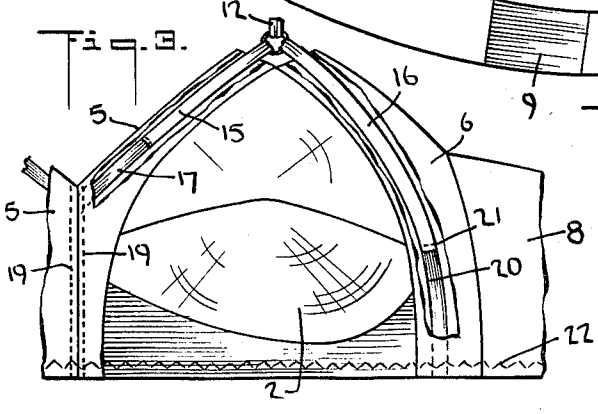
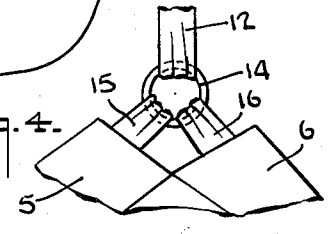


Fig. 4.



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BRASSIERE

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3 Claims. (Cl. 128—492)

This invention relates to foundation garments of the brassiere type, including not only the familiar short "bra," but also longer-line brassiers, basques, and combination corsets and brassieres, and it has for its object to provide a novel and improved garment of this type.

Another object of the invention is to provide an improved light weight self-adjusting brassiere which is adapted to mold and support the busts with perfect comfort and freedom of movement to the wearer in all positions of the body.

Still another object is to provide a brassiere having a simple and highly efficient mechanical control of the shoulder straps which prevents the garment from riding up on the figure during the course of normal or even strenuous physical activity, and at the same time eliminates strain on the shoulders.

Various other objects and advantages will be apparent as the nature of the invention is more fully disclosed.

It is well known that brassiers of conventional construction have a tendency to ride up on the figure even during normal wear, and more especially in the course of strenuous physical activity. For example, when a woman raises her arms over her head, the brassiere moves up on the figure with resulting discomfort to the wearer. When the arms are lowered, the brassiere generally will not properly re-locate itself on the figure, but must usually be pulled back into place. If the brassiere constitutes the upper portion of a combination garment which is firmly anchored on the figure, the brassiere may nevertheless shift circumferentially or hitch up in places in an uncomfortable manner and require manual readjustment, besides imposing a strain on the shoulders.

The present invention avoids the foregoing disadvantages of the prior art by providing a brassiere having novel self-adjusting shoulder straps which are secured to the garment in such a way that they yieldingly and automatically adjust themselves to any position which the wearer may assume. The body portion of the brassiere may be of any conventional design, comprising the usual bust pockets having end flaps or straps which extend rearwardlly and are hooked or otherwise connected together at the back to hold the garment on the body. Furthermore, each of the shoulder straps may also have one end secured to the back of the brassiere in conventional manner, for example by stitching to the above-mentioned end flaps. The forward ends of the shoulder straps, however, are each connected to a pair of extensible bands or tapes which are slidably concealed in channels formed in the top and side edges of the respective bust pockets in such a way that they freely and automatically glide and adjust themselves with every force applied to the shoulder straps, while the body portion of the brassiere remains in its original position on the body, and all strain on the shoulders is eliminated.

The invention will be described in connection with a short brassiere, but it will be evident that it is equally applicable to long brassieres, combinations, and other similar garments.

The various features and advantages of the invention are described more in detail in connection with a preferred embodiment illustrated in the accompanying drawing, in which:

Fig. 1 is a front perspective view of a brassiere embodying the invention;

Fig. 2 is a rear perspective view of said brassiere;

Fig. 3 is an enlarged fragmentary view of a part of Fig. 1, with portions broken away to illustrate the construction and operation of the straps;

Fig. 4 is an enlarged fragmentary view of the apex of one of the bust pockets, illustrating the connection of the extensible bands to the shoulder straps;

Fig. 5 is a sectional view taken on line 5—5 of Fig. 1; and

Fig. 6 is a sectional view taken on line 6—6 of Fig. 1.

The brassiere shown in the drawing comprises a front portion including bust pockets 1 and 2 of soft inelastic fabric, and narrow horizontally stretchable elastic sections 3 and 4 secured beneath said pockets as illustrated in Figs. 1 and 2.

Each of the bust pockets 1 and 2 is bordered by marginal edging strips of inelastic fabric 5 and 6 which are folded or doubled over and fastened by stitches to provide channels or tunnels which extend through said strips as shown in Fig. 3. The two inner strips 5 extend downwardly from the apexes of the bust pockets 1 and 2 to the central bottom edge of the brassiere and meet to form a median connecting band between the bust pockets and between the elastic sections 3 and 4. The two outer marginal strips 6 extend downwardly from the apexes of the bust pockets 1 and 2 to the lower edge of the garment and form the outer borders of the bust pockets and of the elastic sections 3 and 4.

Narrow under-arm flaps or end sections 7 and 8 of soft inelastic fabric are stitched to the outer vertical edges of the marginal strips 6 of the respective bust pockets 1 and 2. The outer ends of these flaps are connected by an elastic back strap 9 which is stitched, for example, to the flap 8 and is detachably secured to the flap 7 by a hook and eye or other suitable fastening means 10, as shown in Fig. 1.

The shoulder straps 12, which may be of inelastic tape, have their rear ends stitched to the upper edges of the respective under-arm flaps 7 and 8. The forward ends of said shoulder straps are doubled over to form loops which permit the straps to be lengthened or shortened with the aid of conventional sliding clasps 13. A terminal ring 14 of metal or other preferably rigid material is strung on the looped end portions of each shoulder strap 12 which are thus freely slidable on said ring.

Also looped through each of the rings 14 are two folded or doubled-over lengths of inelastic fabric tape 15 and 16 which extend freely into the channels formed by the respective marginal strips 5 and 6 described above. As shown in Figs. 3 and 5, each doubled tape 15 extends freely into the adjacent channeled strip 5, and the inner ends of such tape 15 overlap one end of a short elastic tape or band 17 and are stitched thereto at 18, while the other end of said elastic tape 17 is stitched at 19 to the fabric where the two elastic tapes converge at the median connecting band between the bust pockets 1 and 2. And, as shown in Figs. 3 and 6, each doubled tape 16 extends freely through the adjacent channeled strip 6, and the inner ends of such tape 16 overlap one end of a short elastic tape or band 20 and are stitched thereto at 21, while the other end of said elastic tape 20 is stitched to the extreme lower end of the channel by the same stitching 22 which binds the lower front edge of the garment.

Whenever a force is exerted on either of the shoulder straps 12 in a direction to move its terminal ring 14 up-

wardly, a corresponding force is applied to the tapes **15** and **16** and to their associated elastic tapes **17** and **20**, the degree of elongation of which will depend upon the nature and direction of the applied force; and, as the tension varies, the tapes **15** and **16** will glide freely in their respective channels as the effective length of the shoulder straps varies in conformity with the applied force. The elastic sections **3** and **4**, and the elastic back strap **9**, cooperate to maintain the brassiere snugly upon the body. As the body stretches and relaxes, as in raising and lowering the arms, etc., the automatic adjustment herein described and illustrated provides precisely the amount of elongation and contraction required to maintain the garment in the proper position on the figure without exerting any noticeable strain on the shoulders.

Although a specific embodiment is described and shown herein for purposes of illustration, it will be evident to those skilled in the art that the invention is capable of various modifications and adaptations within the scope of the appended claims.

The invention claimed is:

1. A brassiere comprising a front portion having bust pockets, and a connected back portion having means for securing the brassiere upon the body, marginal edges bordering the top and outer side edges of said bust pockets and forming channels which are open at the apexes of said pockets and extend, respectively, to a median point between said pockets and to a point below the outer borders of said pockets, extensible tapes composed at least partly of elastic material slidably disposed in said channels with their inner ends secured adjacent the inner ends of said channels and their outer ends forming loops which extend outside said channels at the apexes of said pockets, and shoulder straps each having one end secured to the back portion of the brassiere and the other end freely connected to the loops of said extensible tapes.

2. A brassiere comprising a front portion having bust pockets and horizontally stretchable front sections beneath said bust pockets, end sections secured to said bust pockets and to said horizontally stretchable front sections, means for securing said end sections together at the back of the brassiere, marginal edges bordering the top and outer side edges of said bust pockets and forming channels which are open at the apexes of said pockets and extend, respectively, to a median point between said pockets and to said horizontally stretchable front sections below the outer borders of said pockets, elastic tapes shorter than said channels disposed in said channels and secured adjacent the inner ends thereof, inelastic tapes slidably disposed in said channels with their inner ends secured to the elastic tapes therein and their outer ends forming loops which extend outside said channels at the apexes of said pockets, rigid rings extending through the loops of the tapes adjacent the apexes of said pockets, and shoulder straps each having one end secured to one end section and the other end looped through one of said rings and adjustably secured to the shoulder strap to vary the effective length of the latter.

3. A brassiere comprising a front portion having spaced bust pockets and a connected lower marginal edge section extending longitudinally below said bust pockets, marginal edging strips having channels extending therethrough bordering the top and both side edges of both of said bust pockets and extending down to said lower marginal edge section below said bust pockets, the channels in said marginal edging strips being open at the central top apexes of said bust pockets, end sections secured to the marginal edging strips at the outer side edges of said bust pockets and having means for securing said brassiere upon the body, tapes composed at least partly of extensible material slidably disposed in said channels with their inner ends secured adjacent the inner ends of said channels below said bust pockets and with portions of said tapes exposed through the openings in said channels at the central top apexes of said bust pockets, and shoulder straps each having one end secured to an individual end section of said brassiere and the other end slidably connected to the exposed tape portion at the central top apex of an individual bust pocket.

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