Sept. 25, 1956 E. M. ANDERSON 2,763,866

BRASSIERE STRAP

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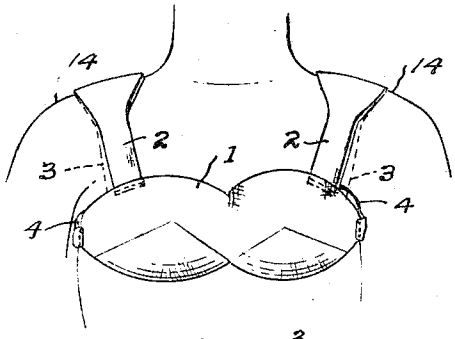


Fig. 1.

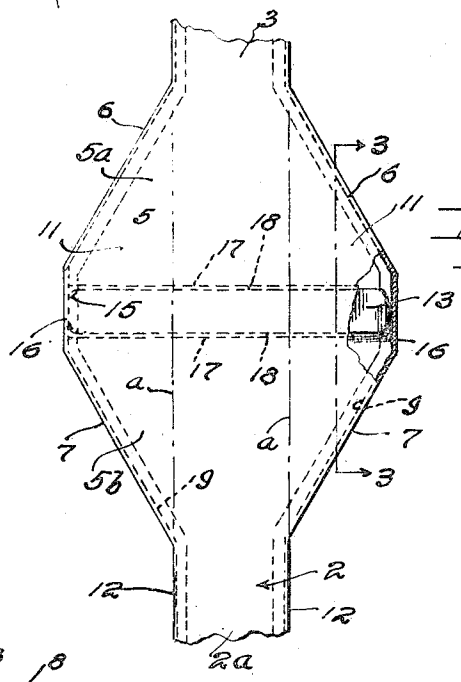


Fig. 2.

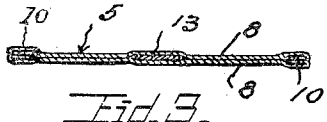


Fig. 3.

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BRASSIERE STRAP

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2 Claims. (Cl. 2—42)

This invention relates to brassieres.

Brassieres usually include in their construction, two straps that support the body of the brassiere, passing forwardly over the shoulders from the back.

Women who are unusually stout sometimes experience considerable discomfort due to the tension in the straps as they pass over the high point or ridge of the wearer's shoulder. Along that line considerable pressure or pull may develop. Similar discomfort or even pain may be experienced by women wearing brassieres after an operation such as a thyroid operation.

A principal object of this invention is to provide a brassiere having shoulder straps so constructed that they will present a considerable area of soft material to the flesh of the shoulder, and in such a way as to give the straps at the shoulder ridge and in its vicinity a greatly increased area of contact with the shoulder, to distribute the downward pressure due to the tension referred to above; also to provide means for causing the full width of the pad to function to increase the effective area of the pad.

I am aware that it has been attempted to provide brassiere shoulder straps with widened portions located over the shoulder ridge. In one such construction with which I am familiar, although the straps were widened in this location, the actual contact area between the pad and the shoulder was not considerably increased.

In another construction of which I have knowledge, the pads in the brassiere strap were formed of a plastic material of concavo-convex form with the concave face, of course, resting upon the shoulder, but in that construction the hard material of the pad rested directly upon the shoulder in such a way that the edges of the material, under the tension of the straps tend to press themselves forcibly against the skin particularly at the front where the forward inner edges are in a position approaching to the bust.

Further objects of the invention will be evident from a careful study of the drawing and reading of the accompanying specification.

The invention consists in the novel parts and combinations of parts to be described hereinafter, all of which contribute to produce an efficient pressure relieving brassiere.

In the drawing:

Figure 1 is a perspective of a brassiere in the manner in which I construct it in accordance with my invention.

Figure 2 is a plan of one of the pads the straps of which are broken away adjacent the pad, and a portion of the pad at one side is broken away to further illustrate features of the invention.

Figure 3 is a cross-section through the pad taken about on the line 3—3 of Figure 2.

Referring more particularly to the parts, the brassiere comprises a body portion 1 which is supported over the bust of the wearer, at the front by the forward extensions 2*a* of the shoulder straps 2 which also include back extensions 3 that pass down at the wearer's back and are

attached at the rear to a belt 4 or strap that passes across the wearer's back at about the level of the body of the brassiere, where a buckle is usually provided to give a disconnectable point in the brassiere to facilitate its attachment to the body, and its removal.

In practicing the invention I prefer to form each strap 2 as a one-piece strap, that is to say, the forward extension 2*a* of each strap, and its rear extension 3 are united by an integral pad portion 5 of the same material as the extensions which is widened out to give the pad portion a substantially diamond form with upwardly converging side edges 6 and downwardly converging sides 7, as indicated in Figure 2.

The parts that constitute each shoulder strap and its pad are preferably formed of two layers or plies 8 of suitable material such as satin or other material of that nature that will be comfortable when pressed against the shoulders. The two plies 8 of the material are alike and after being superposed are secured together with stitches 9 that extend along the side edges of the entire strap where these edges are folded inwardly as indicated in Figure 3 to form side hems 10, see Figure 3.

The entire area within the margin of this pad functions to distribute the total pressure of the pad against the shoulder. In this connection it should be realized that unless means are provided to develop tension in the two triangular wing portions 11 that are located outside of the lines *a*, see Figure 2, that are extensions of the side edges 12 of the extensions 2*a* and 3, those wing portions would not contribute to the area of the entire diamond shaped pad.

In order to accomplish this and maintain the lateral wings 11 of each pad in firm contact with the shoulder so as to assist in maintaining the entire areas of the upper and lower portions 5*a* and 5*b* of the brassiere in a common plane, I employ transverse flat bar 13 of rigid material such as whalebone or metal of a character which will enable it to lie along the shoulder ridge line 14 of the shoulder, to which it is applied. The end edges 15 of this cross-bar are preferably convex as shown and fit to the side edges 16 of the diamond shape body of the pad.

While any suitable means may be employed for securing this bar 13 in position within the soft pad body, I prefer to secure it by placing two lines of stitches 17 transversely to the pad body and extending longitudinally adjacent to the side edges 18 of the flat bar.

In this way the transverse middle portion of the soft pad body is formed into an elongated pocket in which the cross-bar 13 lies snugly.

It will be evident that the rigid bar 13 maintains the lateral wings 11 in their extended position in which they are shown in Figure 2. And when the straps are worn, part of this tension is imparted to the edges 6 and the whole area of the wings 11, due to the rigid character of the bar. In this way the pressure of the pad portion against the wearer's shoulder is distributed over its entire area bounded by the margins of the widened portion.

It will be evident that a brassiere constructed as described above can be manufactured very economically and consequently can fill a long felt want at a comparatively low retail price.

I claim as my invention, and desire to secure by Letters Patent:

1. A shoulder strap for a brassiere, composed of two superposed layers of fabric material, and having a relatively narrow front extension for attachment to the brassiere body and a relatively narrow rear extension for attachment at a point adjacent to wearer's back, said layers of material having a relatively widened pad portion connecting said narrow extensions adapted to ride upon the wearer's shoulder, transverse flat bar means of rigid ma-

terial disposed between the two superposed layers of fabric composing the pad-portion adjacent its transverse medial axis extending transversely substantially at right angles to the longitudinal axis of the strap, the tips of said bar means located adjacent to the margins of said pad-portions adjacent its widest dimension, stitching extending along the side edges of said bar means and maintaining the same in a fixed position substantially at right angles to the longitudinal axis of the strap, said bar means at its tip portions operating when tension is developed in the strap, to also develop tension in the side margins of the pad-portions, thereby effecting the distribution of the pressure exerted by the pad-portion upon the wearer's shoulder, throughout the entire area of said pad portions.

2. A shoulder strap for attachment to a brassiere, said strap composed of superposed layers of fabric material and having a relatively narrow forward extension for attachment to a brassiere at the front and a relatively narrow rear extension for attachment at the back of said brassiere, said superposed layers of fabric having a relatively widened pad portion connecting said narrow extensions adapted to lie upon the wearer's shoulder, the material composing said pad portion completely filling the area within the margins of said pad portion, transverse flat bar means of rigid material disposed between the two superposed layers of fabric composing the pad portion, and extending transversely substantially at right angles to the longitudinal axis of said strap, and with its tips located adjacent to the margins of said pad portion at its widest dimension, stitching means extending along the side edges of said bar means and maintaining the same in its fixed position with reference to the longitudinal axis of the shoulder strap, the side margins of said pad portion being inclined and substantially straight and thereby co-operating with said transverse bar means to distribute the pressure of said pad portion throughout the entire area bounded by the side margins of the said pad portion, upon the wearer's shoulder.

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