Dec. 19, 1950 E. D. GERRY 2,534,513

SHOULDER PAD CONSTRUCTION

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Fig. 1

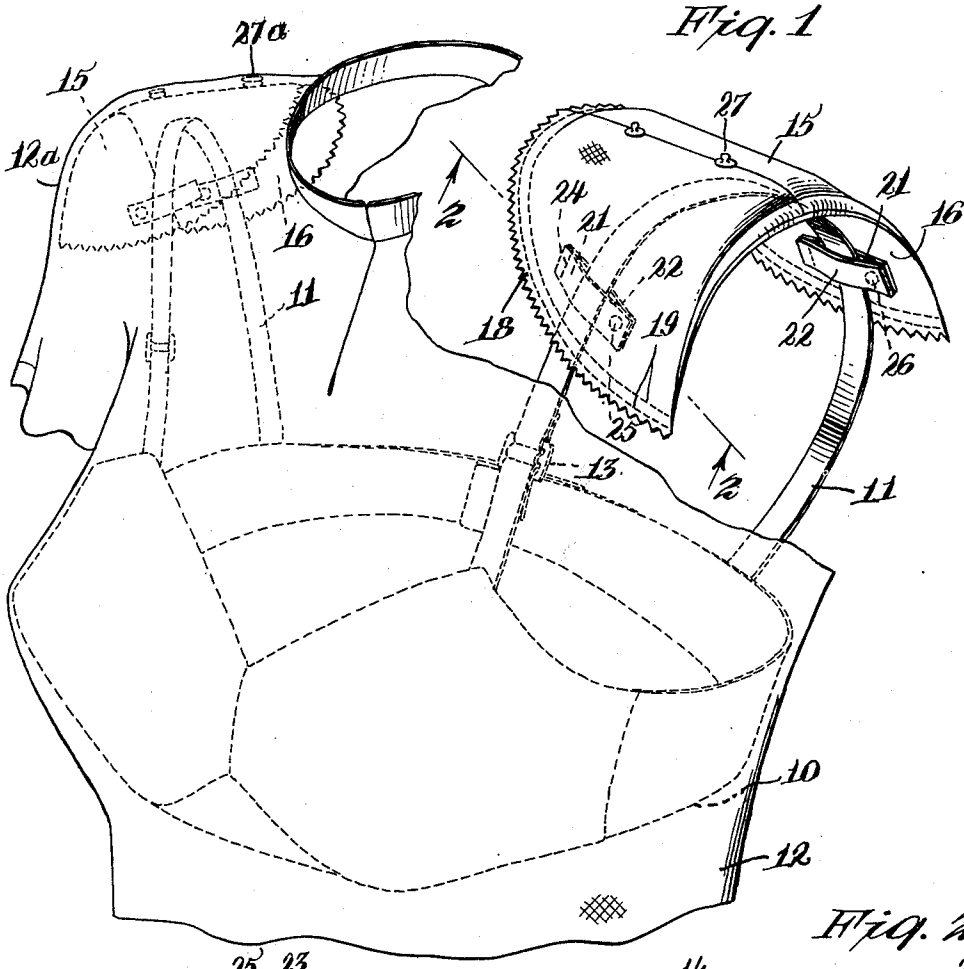


Fig. 2

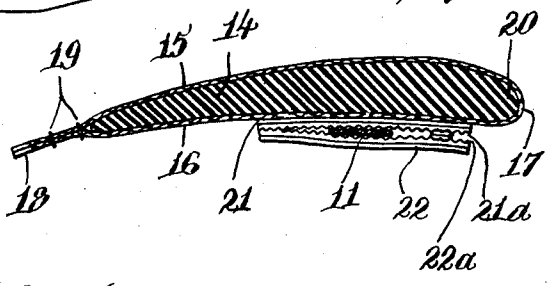
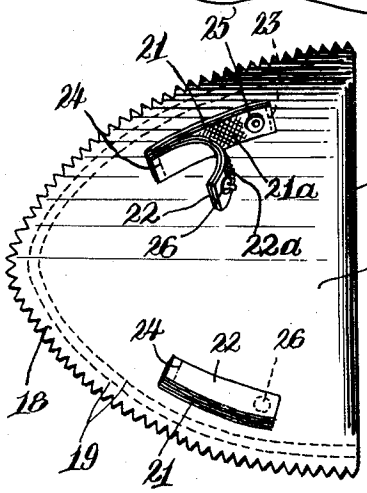


Fig 3



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SHOULDER PAD CONSTRUCTION

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6 Claims. (Cl. 2—268)

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This invention relates generally to removable shoulder pads, but more specifically to a resilient shoulder pad having an openable grip to frictionally engage a shoulder engaging undergarment strap to maintain the pad upon the shoulder of the wearer and to reduce shifting of the strap relative to the pad.

The main object of the invention resides in the provision of a light, resilient, and durable shoulder pad provided with fastening means on the under side thereof to frictionally engage the shoulder strap of undergarments whereby the pad is maintained in place on the shoulder and annoying slipping of the strap axially and laterally relative to the pad is minimized.

Another object of the invention resides in the provision of a shoulder pad provided with frictionally engaging securing means for an undergarment shoulder strap on one side and on the opposite side provided with detachable engaging means for cooperating engaging means on the shoulder portion of garments whereby a single pad is capable of use for a possible entire wardrobe.

Heretofore, shoulder pads having means for engaging the shoulder straps of undergarments lacked the structure for engaging such shoulder straps in a way which would prevent relative slidable displacement thereof. Such displacement not only makes the wearer uncomfortable, but also lacks means of preventing shoulder pads themselves from shifting on the shoulders. This invention by reason of structure solves the problem of preventing the shoulder pad from shifting and the bra or other undergarment shoulder straps from sliding.

Other objects of the invention reside in the efficiency, economy of manufacture, durability and sanitation of the shoulder pad, the subject matter of the invention herein.

These objects and other incidental ends and advantages of the invention will hereinafter appear in the progress of the disclosure and as pointed out in the appended claims.

Accompanying this specification are drawings showing a preferred form of the invention wherein:

Figure 1 is a view in perspective showing shoulder pads associated with an undergarment having supporting shoulder straps and with the shoulder portions of an outer garment, the view being partially cut-away and foreshortened.

Figure 2 is a sectional view of Figure 1 across the plane 2—2 thereof.

Figure 3 is a plan view of the underside of the

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shoulder pad showing the openable gripping means for detachable and frictional engagement between the shoulder pad and the undergarment shoulder supporting strap.

In accordance with the invention and the preferred form shown, numeral 10 indicates generally a ladies' undergarment such as a brassière. A pair of shoulder straps each indicated by numeral 11 are secured to the brassière or to any other undergarment in the conventional manner, each of the straps being provided with suitable adjusting means such as adjustment slides 13. Any conventional outer garment adapted to overlie the undergarment is indicated by numeral 12, one of the shoulders thereof also being indicated by numeral 12a.

The shoulder pad in accordance with the invention herein comprises a core 14 having resilient and pliable characteristics such as sponge rubber, air treated plastic material and the like. Core 14 is provided with a form fitting jacket or covering, preferably of fabric, and is indicated by an upper wall covering 15, a lower wall covering 16 and a base wall covering 17. Along the continuous side and curved rear edges of core 14 is a marginal flap 18 extending beyond the side and rear edges of the core, the said flap having rows of stitches 19 securing the elements of the cover member in place over core 14. Flap 18 as shown is pinked along the outer edge for the usual reasons.

Core 14 as shown is of a general triangular shape having an arched base 20 tapering from the mid-portion thereof to the ends, the upper and lower curved walls of core 14 also tapering toward the side and rear edges. The shape of core 14 is such as to conform to the contour of the shoulder along the lower wall and along the upper wall is such as to create stylish lines for the shoulder of the garment being supported thereon. The jacket or covering assumes the shape of the core.

In order to engage the supporting strap 11 adapted to engage the shoulder of the wearer the lower jacket wall 16 of core 14 is provided with a pair of spaced and aligned openable gripping loops each being affixed to wall 16 adjacent the jacket base wall 17 and disposed inside of and axially across the base of the pad.

Each of the strap engaging gripping loops is provided with a bottom member or strip 21 secured to the lower cover wall 16 in any suitable manner as by a seam 23 along each of the transverse edges. The strip 21 may be secured to the lower cover wall 16 in any other suitable

manner such as by adhesive means. The exposed or gripping side of strip 21 is roughened as indicated by numeral 21*a*, the material of said strip being either of flexible bone, plastic, metal or composition, the material chosen being controlled by both the gripping qualities of the exposed side 21*a* and the required flexibility characteristics. Adapted to overlie strip 21 is a second similar strip 22 having a similar roughened opposing surface 22*a*, strip 22 being secured to strip 21 at one transverse edge in any suitable manner such as by means of transverse line of stitching 24 whereby a hinging effect is created between said strips.

The understrip 22 adjacent one transverse edge is provided with a fastening element 25 which is adapted to engage a complementary fastening element 26 adjacent the free transverse edge of the upper strip 22. As shown in Figure 3, fastening member 26 is adapted to detachably engage member 25 thereby forming gripping jaws between which the strap 11 is clamped when introduced while the strip members are in open position. The gripping jaws 21*a* and 22*a* maintained in place by means of the wedging effect may be knurled or cut in intermeshing design whereby a clamp-like effect is accomplished as best shown in Figure 2. The strap 11 is thus wedged firmly between the faces 21*a* and 22*a* to minimize sliding action either axially or transversely. It becomes obvious that to effectuate such gripping action, the strips 21 and 22 must have a certain amount of hardness and also flexibility. The flexible nature of the strips 21 and 22 is necessitated by the fact that strip 21 must assume the curvature of the underwall of the pad member, while the overlying strip 22 at the free end must be flexed for insertion and removal of the strap 11.

The upper wall 15 of the shoulder pad as shown is provided with a pair of snap fasteners 27 spaced along the longitudinal axis of the pad as best shown in Figure 1. These fasteners 27 are adapted to engage complementary fasteners on the inner wall of the shoulder portion 12*a* of the outer garment, each of the said complementary fasteners being indicated by numeral 27*a*. Fasteners 27 and 27*a* are of the detachable type. Thus the pad may be applied to a whole wardrobe of under and outer garments. It is understood that the pad may be used with or without the fasteners 27.

Although the core member 14 of the shoulder pad herein has been described as being made of sponge rubber, air-treated plastic material or the like, it is understood that the core may be made of any other material to serve the purpose of shoulder pads.

I wish it understood that minor changes and variations in the material, integration of parts and location of elements may all be resorted to without departing from the spirit of the invention and the scope of the appended claims.

I claim:

1. A shoulder pad assembly engageable with a garment and with undergarment shoulder straps, comprising a pre-shaped, resilient and pliable core, a jacket to completely enclose said core, means to connect said jacket to the garment, a pair of spaced and openable gripping loops secured to the lower wall of the jacket and

being adapted to non-slidably engage a shoulder strap of the undergarment.

2. A shoulder pad assembly engageable with a garment and adapted to frictionally engage a shoulder strap of an undergarment, comprising a pre-shaped, resilient and pliable core, a jacket to completely enclose said core, means to connect said jacket to the garment, a pair of spaced and openable gripping loops affixed in alignment and along the lower wall of the jacket to non-slidably engage said shoulder strap.

3. A shoulder pad assembly engageable with a garment and adapted to engage the shoulder strap of an undergarment, comprising a pre-shaped core, a jacket to completely enclose said core, means to connect said jacket to the garment, an openable gripping loop secured to the lower wall of the jacket and being adapted to non-slidably receive the shoulder pad on the wearer and for minimizing relative displacement.

4. A shoulder pad assembly for the shoulders of garments and adapted to be secured to the shoulder strap of an undergarment comprising a pre-shaped, resilient and pliable core, a jacket to completely enclose said core, a pair of resilient and openable gripping loops spaced from each other and affixed to the lower wall of the jacket to non-slidably engage the shoulder strap of the undergarment and fastening means on the upper wall of the jacket and cooperating fastening means secured to the inner wall of the shoulder of the garment for removable engagement with the first mentioned fastening means.

5. A shoulder pad assembly for the shoulders of garments and for engagement with a shoulder strap of an undergarment, comprising a pre-shaped core, a jacket to completely enclose said core, resilient and openable gripping members affixed to the lower wall of the jacket and being adapted to non-slidably engage the shoulder strap of the undergarment, a pair of spaced fastening elements on the upper wall of the jacket, and a pair of cooperating fastening elements secured to the shoulder of the garment for removable engagement with the first mentioned fastening elements.

6. A shoulder pad assembly for the shoulders of garments and for engaging the shoulder strap of an undergarment, comprising a pre-shaped resilient and pliable core, a jacket to completely enclose said core, frictional engaging members selectively openable and closable and affixed to the lower wall of the jacket to non-slidably receive and maintain the position of the shoulder strap of the undergarment, fastening means in spaced relationship on the upper wall of the jacket and cooperating and spaced fastening means secured to the shoulder of the garment for removable engagement with the first mentioned fastening means.

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