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A. N. SPANEL

2,495,028

SHOULDER PAD

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Fig. 1.

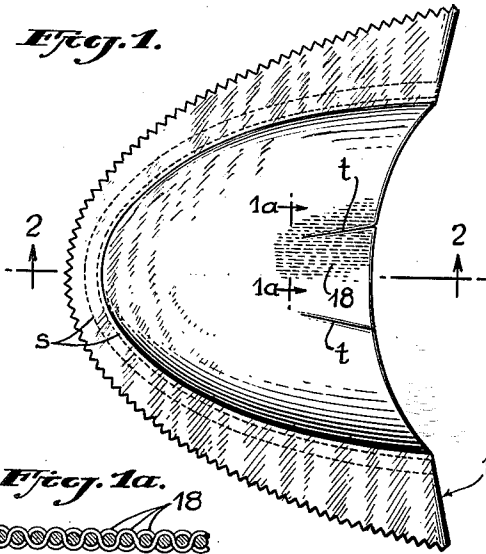


Fig. 3.

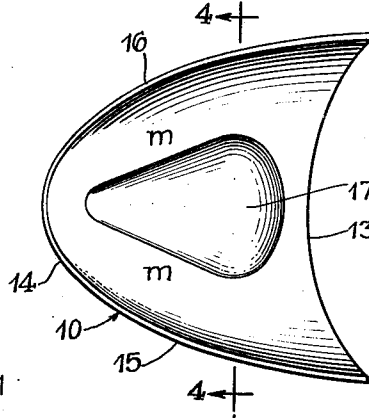


Fig. 1a.

Fig. 2.

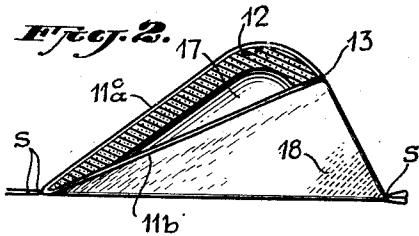


Fig. 4.

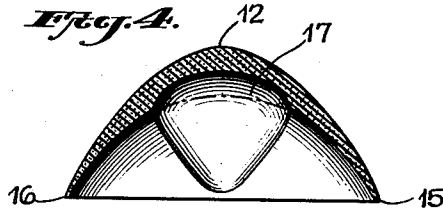


Fig. 5.

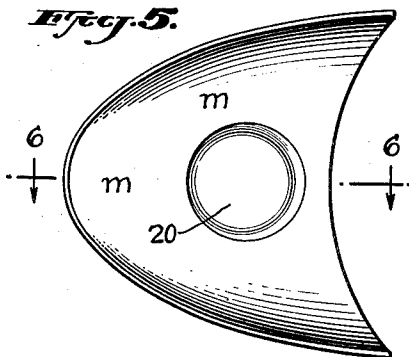


Fig. 7.

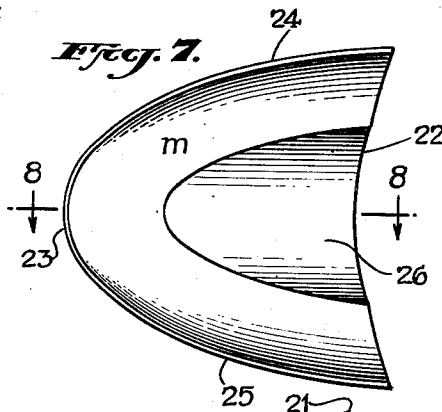


Fig. 6.

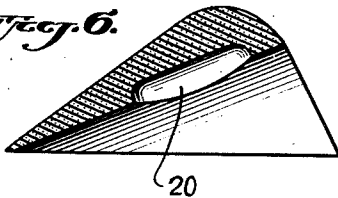
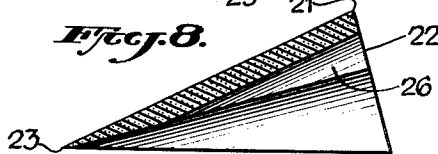


Fig. 8.



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SHOULDER PAD

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6 Claims. (Cl. 2-268)

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This invention relates to shoulder pads for use in wearing apparel such as coats, dresses and the like garments, and especially to pads consisting of or comprising a sponge rubber body, such as latex foam rubber.

An object of the invention is to provide a shoulder pad which will provide greater comfort to the wearer as well as providing improved conformity in shape to the garment when worn.

Another object is to provide a shoulder pad of reduced weight and a corresponding diminution of sponge rubber required for a given over-all size while retaining adequate structural support.

Other and further objects, features and advantages of the invention will be understood from the following description taken in connection with the accompanying drawings, in which:

Fig. 1 is a top plan view of a preferred form of the invention;

Fig. 1a is a greatly enlarged sectional view taken along the line 1a-1a of Fig. 1 to better show certain features of the device;

Fig. 2 is a longitudinal sectional view taken along the line 2-2 of Fig. 1;

Fig. 3 is a bottom plan view of the main body of the device with the cover removed;

Fig. 4 is a transverse sectional view taken along the line 4-4 of Fig. 3;

Fig. 5 is a bottom plan view of a modified form of the device;

Fig. 6 is a longitudinal sectional view taken along the line 6-6 of Fig. 5;

Fig. 7 is a bottom plan view of a further modification; and

Fig. 8 is a longitudinal sectional view taken along the line 8-8 of Fig. 7.

The device in its preferred form comprises a sponge rubber body and a fabric cover therefor to facilitate attachment to garments, such as coats and dresses. The invention involves certain features of novelty with respect to these components in combination; but it is to be understood that certain features of the invention reside in the particular configuration of the sponge rubber body per se whether or not the device includes a fabric cover.

Referring to the drawings and more particularly to Figs. 1, 2 and 3, 10 designates a latex or the like sponge rubber body and 11 designates the fabric cover therefor. The sponge rubber body in general exterior outline is of angular shape. More particularly, it is arch-shaped in a transverse direction throughout its length and is so proportioned that the arch diminishes in wall thickness progressively from the zone of

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greatest height, designated 12, which in this embodiment is disposed adjacent to the outer edge 13 and spaced slightly inwardly therefrom, toward the inner end 14. From this it will be seen that this variation in thickness extends throughout the major longitudinal extent of said body. The arch thickness also diminishes from said zone of greatest thickness to the outer edge 13. The arch thickness of the body also diminishes in opposite transverse directions from a central longitudinal zone of greatest thickness, such as the longitudinal zone disposed along the section line 2-2, to substantially the respectively opposite marginal edges 15, 16 which gradually merge together into the inner edge 14 to define a semi-ellipse in plan view.

In shoulder pads heretofore in use the lower concave contour has presented a surface determined primarily in accordance with the degree of padding effect desired for the garment and initial shape of the shoulder of the garment. While such pads are comfortable when worn by some yet on others they are uncomfortable due to a more or less protuberance of the outer end of the clavicle. Not only is discomfort experienced in such cases but the pad tends to slide off to one side or the other. Even in the case of shoulder pads made of sponge rubber these defects are present and a relatively thin arch section fails to provide the desired resistance against collapse when latex foam rubber or the like sponge is employed. I have found that a latex foam rubber pad body may be given such a configuration as to overcome the undesirable features above discussed; thus providing comfort and proper fit which maintains the pad in proper position and the garment properly draped.

The body is provided with a depression or cavity 17 extending from the inner concave surface toward the outer convex surface and disposed along the dome of the arched shape and preferably substantially at the zone of greatest thickness. It will be noted that the area of the cavity is such as to leave a substantial margin *m* between the cavity 17 and sides 15, 16 and preferably also the inner end 14. This depression is of such depth and configuration as to provide for receiving the outer end of the clavicle of the wearer, which is the most prominent part of the shoulder structure, while at the same time providing a suitable marginal surface area along the concave interior of the arched structure to adequately support the pad on the wearer's shoulder around the clavicle. Preferably, this depression is of the general outline of a tear-

3 drop in plan view (Fig. 3) with its maximum depth and width disposed at the zone of greatest convexity so as to provide between said cavity and the upper convex surface a wall of substantially reduced thickness; thus effecting a reduction in weight and a saving in sponge rubber material in addition to providing a suitable recess for the purpose desired.

With reference to Figs. 1 and 1a, it will be seen that the fabric cover 11 is made of an upper fold 11a and a lower fold 11b which are stitched together along the rear edge 13 and around the marginal edge 14, 15, 16, the stitching being designated s. The upper fold is provided with tucks, such as t, to better conform the cover to the contour of the pad body member. It has been found that the inner end of such tucks have a decided tendency to pucker and thereby present an unsightly appearance. It has likewise been found that the lower fold had a tendency to droop away from the concave underside of the body member. One of the objects of the invention is to obviate these objectionable features. The cover fabric is so selected that a predominant grain is provided such as by ribs 18, such as is present in faille, rep or fabrics of like nature, in which there is relatively greater flexibility transverse the grain (Fig. 1a). The upper fold 11a of the cover is arranged so that the grain extends in a longitudinal direction while the lower fold 11b of the cover is so disposed that the grain 18 extends on the bias. With this arrangement the puckering at the tucks t is eliminated and the fabric cover lies closely adjacent to the inner concavity of the body member.

In Figs. 5 and 6 there is shown a body member of general configuration identical with that shown in Fig. 3, but in this modified embodiment the depression, designated 20, is circular in plan view. While this form of depression serves as a recess to accommodate the main protuberance of the clavicle, in so far as comfort is concerned it is not as desirable as the form shown in Figs. 2-4. However, the supporting marginal portion m' is somewhat increased in area and effectiveness.

In Figs. 7 and 8 there is shown a further modified form of pad body in which the maximum arch section, designated 21, is disposed at the outer edge, designated 22, and therefore the thickness tapers progressively from the outer edge progressively to a thin inner edge 23. As in the previous embodiment the arch sections taper progressively in opposite directions from the central, longitudinal zone toward the respectively opposite edges such as 24, 25 and these edges gradually merge together with the thin inner edge 23 to form a semi-elliptical outline in plan view. In this embodiment the recess is designated 26 and takes the form of a channel which intersects the outer edge 22. As in the embodiment of Figs. 2-4 this cavity varies from a maximum depth at the zone of greatest thickness toward its inner end where it gradually merges with the interior concavity of the body, to thereby provide between said cavity and the upper convex body surface a wall of substantially reduced thickness. In this embodiment the supporting marginal surface is also designated m.

Having thus described my invention with particularity with reference to several embodiments of the same, and having described and referred to certain modifications thereof, it will be obvious to those skilled in the art, after understanding my invention, that various changes and other

modifications may be made therein without departing from the spirit and scope of my invention, and I aim in the appended claims to cover such changes and modifications as are within the scope of the invention.

What I claim is:

1. A shoulder pad comprising a body which is made of unitary latex foam structure having upper and lower surface areas, the upper of which areas when on the shoulder being generally convex in transverse cross section and the lower of said surface areas being concave in transverse cross section and provided with a depressed portion extending inwardly of the contiguous concave lower surface area, said depressed portion being so constructed and arranged as to accommodate a portion of the protruding bony shoulder structure of the wearer.

2. A shoulder pad for wearing apparel comprising a latex foam or the like sponge rubber body having a shape so proportioned that its section diminishes in wall thickness progressively in a longitudinal direction from adjacent the outer end toward the inner end throughout the major longitudinal extent of said body and progressively diminishes in wall thickness in opposite transverse directions from a central longitudinal zone of greatest thickness to substantially the respectively opposite marginal edges, and said body being provided with a centrally disposed cavity extending within the body thickness in depth from the lower surface of said body toward the upper surface, the area of said cavity at its juncture with said lower surface being so proportioned as to provide a substantial marginal surface of said lower surface between said cavity and the opposite sides and included inner end of said body, to thereby provide a recess for receiving the outer end of the clavicle while providing a sufficiently stable base for supporting said latex foam body from the wearer's shoulder.

3. A shoulder pad for wearing apparel comprising a latex foam or the like sponge rubber body having a shape so proportioned that its section diminishes in wall thickness progressively in a longitudinal direction from adjacent the outer end toward the inner end throughout the major longitudinal extent of said body and progressively diminishes in wall thickness in opposite transverse directions from a central longitudinal zone of greatest thickness to substantially the respectively opposite marginal edges, said opposite marginal edges meeting at the inner end of said body to form a substantially semi-elliptical outline in plan view, and said body being provided with a central cavity of teardrop configuration extending within the body thickness in depth from the lower surface of said body toward the upper surface and having its greatest depth and width disposed substantially at the zone of greatest thickness, to thereby provide a recess for receiving the outer end of the clavicle.

4. A shoulder pad for wearing apparel comprising a latex foam or the like sponge rubber body having a shape so proportioned that its section diminishes in wall thickness progressively in a longitudinal direction from the outer end toward the inner end throughout the longitudinal extent of said body and progressively diminishes in wall thickness in opposite transverse directions from a central longitudinal zone of greatest thickness to substantially the respectively opposite marginal edges, said opposite marginal edges meeting at the inner end of said body to form a substantially semi-elliptical outline in plan view, and

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said body being provided with a centrally disposed depression in the form of a channel extending in length from said outer end inwardly toward said inner end and extending in depth from the lower surface of said body toward the upper surface, to thereby provide a central recess within said body thickness for receiving the outer end of the clavicle.

5. A shoulder pad for wearing apparel comprising a latex foam or the like sponge rubber body member having an inherent transverse arched shape so proportioned that said arched section diminishes in wall thickness progressively in a longitudinal direction from a zone of greatest height disposed adjacent its outer end toward its inner end throughout the major longitudinal extent of said body and diminishes in thickness from said zone of greatest height to said outer end and progressively diminishes in wall thickness in opposite transverse directions from a central longitudinal zone of greatest thickness to substantially the respectively opposite marginal edges, and a woven fabric cover having an upper fold and a lower fold which together envelope said body member, the grain of the weave of said fabric being predominant in one direction, said cover being so constructed and arranged that in the upper fold adjacent the convex surface of said body contour the grain runs in a longitudinal direction of said body and in the lower fold adjacent the concave surface of said body contour the grain runs on the bias.

6. A shoulder pad for wearing apparel comprising a latex foam or the like sponge rubber body member having an inherent transverse arched shape so proportioned that said arched section diminishes in wall thickness progressively in a

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longitudinal direction from a zone of greatest height disposed adjacent its outer end toward its inner end throughout the major longitudinal extent of said body and diminishes in thickness from said zone of greatest height to said outer end and progressively diminishes in wall thickness in opposite transverse directions from a central longitudinal zone of greatest thickness to substantially the respectively opposite marginal edges, and a woven fabric cover having an upper fold and a lower fold which together envelope said body member, the grain of the weave of said fabric being predominant in one direction, said cover being so constructed and arranged that in the upper fold adjacent the convex surface of said body contour the grain runs in a longitudinal direction of said body and in the lower fold adjacent the concave surface of said body contour the grain runs on the bias, said upper fold being provided with a plurality of tucks extending from adjacent the outer end of said pad to adjacent said zone of greatest height.

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