The present invention relates to garment pads and more particularly to pads for use in garment shoulders to impart to the garment a square or high shoulder effect.

The practice of using pads in the shoulders of garments to give the square or high shoulder effect is almost universal in the garment industry and is also as old as the industry itself.

It is common practice to shape and mold the shoulder pads by hand using cotton padding or other fibrous material as a filler with a covering of tailor's canvas or similar material, the entire pad being held together by stitching. Because the lower arc of the pad is shorter than the upper arc, it is necessary when fashioning a pad, to pleat or tuck the material on the lower side in order to make it conform to shape. The pleats and the tucks thus formed prevent the pad from assuming a true position on the shoulder and the general result is a misshapen garment.

The present day pads, moreover, being hand fashioned, are not uniform in shape or height and difficulty is experienced by the garment manufacturers in obtaining identical effects in both shoulders. Furthermore, the weight of the material pressing on the pads combined with the effects of the cleaning process soon compresses the pad filling and the style imparted by the manufacturer is lost.

It is an important object of the present invention to obviate the above difficulties by providing shoulder pads that are die formed, perfectly smooth on all sides, and completely uniform in shape and height.

It is a further object of the present invention to provide a shoulder pad which will retain its accurate or lunate shape under all circumstances and conditions.

Another object of the present invention is to provide a method of constructing a shoulder pad which is simple and inexpensive, but which results in an improved uniform product capable of retaining its shape under ordinary circumstances and conditions.

Numerous objects and advantages will be apparent throughout the progress of the following specifications.

The accompanying drawings illustrates a selected embodiment of the invention and the views therein, are as follows:

Fig. 1 is a perspective view showing the improved pad in position on the shoulder.

Fig. 2 is an underneath view with the envelopes folded back to show felted fibrous layers in stepped relation.

Fig. 3 is a cross section taken on line 2—3 of Fig. 4.

Fig. 4 is an end view.

Fig. 5 is a side elevational view.

The shoulder pad shown herein for the purpose of illustrating the present invention comprises a plurality of super-imposed layers of loosely felted fibrous material 10, substantially shield shaped and of a gradually diminishing size of which there may be any desired number, for instance four. The said layers 18 each have at least one straight edge 14 which are in alignment and the remaining borders of said layers are in stepped relation to provide a composite padding mass 12 as shown in Fig. 2.

The said padding mass 12 together with the resilient filamentous cord 13 which is positioned adjacent to the aligned straight edges 14 is enclosed in a double fabric envelope, the inner envelope 14 being preferably tailor's canvas or other like material and the outer envelope 15 of felted material or the like and the combined padding mass 12, cord 13 and envelopes 14 and 15 are formed in a pre-heated forming die into a shoulder pad presenting a lunate cross section at the shoulder end and gradually diminishing in cross sectional size toward the opposite end as shown in Fig. 5.

It should be particularly noted that the inner envelope 14 is of a size only slightly larger than the composite padding mass 12 and the outer envelope 15 is substantially greater in areal extent than the inner envelope 15. It should be further noted that the resilient filamentous cord 13 is positioned to lie in the fold of the inner envelope adjacent to the aligned straight edges and is of sufficient length to extend a short distance beyond the edges of the outer envelope 15. If desired the shoulder pad of the present invention may be made with the center marking groove 16 to facilitate the seating of the pad on the shoulder.

A shoulder pad embodying the principles of the present invention is not required to be stitched although a minimum of stitching may be used if desired, is always uniform and presents a true seat for the shoulder. To accomplish this a method of construction is provided which is exact, simple and inexpensive.

Using any desired number of layers of loosely felted fibrous materials 10 which are shield shaped, of a gradually diminishing size and have at least one straight edge the said layers are superimposed upon each other, the straight edges being kept in alignment and the remaining borders being in stepped relation as specifically shown in Fig. 2. The resilient filamentous cord 13 is then placed adjacent the aligned straight edges and the layers together with the cord are enclosed in the fabric envelope 14 preferably of tailor's canvas or the like which is only slightly larger in size than the mass of combined layers 10. The filled envelope is then enclosed in the outer envelope 15 which is substantially greater in areal extent than the envelope 14 and
which may be of felted material or the like. It is of importance that the cord 3 is positioned in the fold of the inner envelope adjacent to the aligned straight edges and is made to extend a slight distance beyond the outside border of the outer envelope 1.

The completed envelope 1 is then placed in a pre-heated forming die (not shown) of predetermined shape until the pad is permanently formed. The heat of the die causes the sizing in the fabric of the inner envelope 14 to combine with the layers of fibrous material to form a bond and impart to the resilient filamentous cord 13 a spring-like quality which serves to restore the pad to its lunar form if the pad is distorted when in use.

If desired the die may be made to impart a center marking ridge as illustrated in the drawings. The present invention provides a shoulder pad which is extremely simple, inexpensive to make and yet which obviates all the defects heretofore encountered.

Changes may be made in the form and construction without departing from the spirit of the invention or sacrificing any of its advantages and the right is hereby reserved to make all changes as fairly fall within the scope of the following claims.

What is claimed as new and desired to be secured by Letters Patent of the United States is as follows:

1. A shoulder pad for garments and the like comprising a plurality of substantially shield shaped superimposed layers of resilient material of gradual diminishing size arranged in stepped relation to provide a composite resilient padding mass, a fabric envelope enclosing said padding mass, the entire said padding mass being curved to present a lunar cross section at the shoulder end gradually diminishing in cross sectional size toward the opposite end and a resilient filamentous cord lying in the fold of the said envelope at its widest end to maintain the said padding mass in its lunar form.

2. A shoulder pad for garments and the like comprising a plurality of substantially shield shaped superimposed layers of loosely felted fibrous material of gradually diminishing size arranged in stepped relation to provide a composite resilient padding mass, a fabric envelope enclosing said padding mass, the entire said padding mass being curved to present a lunar cross section at its widest end gradually diminishing in cross sectional size toward the opposite end and a resilient filamentous cord lying in the fold of the inner envelope at the shoulder end to maintain the said padding mass in its lunar form.

3. A shoulder pad for garments and the like comprising a plurality of substantially shield shaped superimposed layers of loosely felted fibrous material of gradually diminishing size, each of which has at least one straight edge, the said layers being arranged in stepped relation but with the straight edges thereof in alignment, a double envelope of tailor's canvas and felted material enclosing said layers, the outer envelope being of the felted material and being substantially greater in area extent than the inner envelope and a resilient filamentous cord lying in the fold of the inner envelope adjacent to the aligned straight edges, said construction providing a composite resilient padding mass which is curved to present a lunar cross section taken in a plane parallel to the aligned straight edges and of a gradually diminishing cross sectional size toward the opposite end.

4. A shoulder pad for garments and the like comprising a plurality of superimposed layers of substantially shield shaped loosely felted fibrous material of gradually diminishing size each of which has at least one straight edge, the several straight edges being in alignment and the remaining borders of the layers being in stepped relation to provide a composite filamentous padding mass, the said mass being curved to present a lunar cross section taken in a plane parallel to the aligned straight edges and of a gradually diminishing cross sectional size toward the opposite end, a canvas envelope to enclose said fibrous padding mass, a felt envelope larger in area extent than said canvas envelope and a resilient filamentous cord lying in the fold of the said canvas envelope and adjacent to the aligned straight edges, said cord providing resiliency to keep and maintain the pad in its lunar form.

5. A method of manufacturing a shoulder pad for garments and the like comprising the steps of enclosing a plurality of superimposed layers of substantially shield shaped loosely felted fibrous material of gradually diminishing size in a fabric envelope, enclosing in said envelope, adjacent the widest edges of said layers, a resilient filamentous cord, placing said envelope in a pre-heated forming die and maintaining said envelope in said forming die until said envelope is permanently shaped.

6. A method of manufacturing a shoulder pad for garments and the like comprising the steps of forming a composite padding mass by superimposing a plurality of substantially shield shaped loosely felted layers of fibrous material of a gradually diminishing size and having at least one straight edge, aligning the several straight edges of said layers, the remaining borders thereof being in stepped relation, enclosing said fibrous layers in a canvas envelope having a resilient filamentous cord placed transversely and enclosed in said canvas envelope adjacent to the aligned straight edges of said layers, enclosing the said canvas envelope in a second fabric envelope whose area extent is substantially greater than that of the canvas envelope, thus forming a composite padding mass and placing the said padding mass in a pre-heated forming die until said padding mass is permanently shaped.

7. A shoulder pad for garments comprising: a cover including top and bottom walls conforming approximately to a pair of conical surfaces intersecting at their side extremities and diverging from a common apical point; a meniscoid end wall joining the spaced ends of said top and bottom walls; and a tension member reinforcing the junction between said end and bottom walls and resisting spreading of the meniscoidal points of said end wall.

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