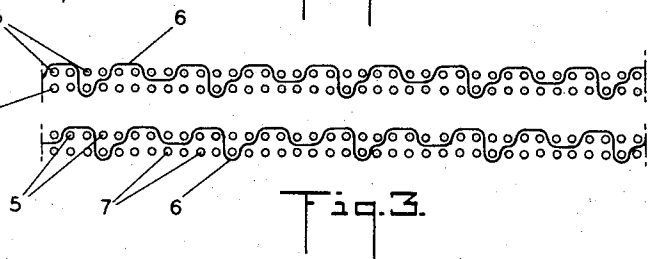
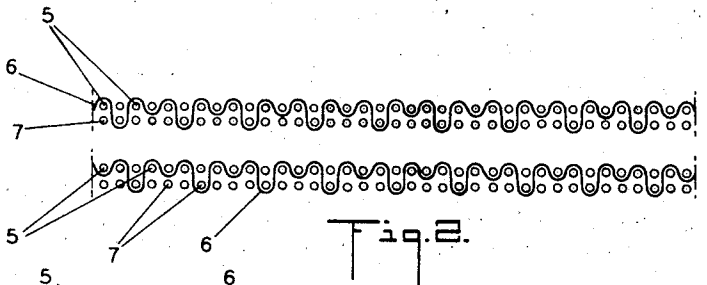
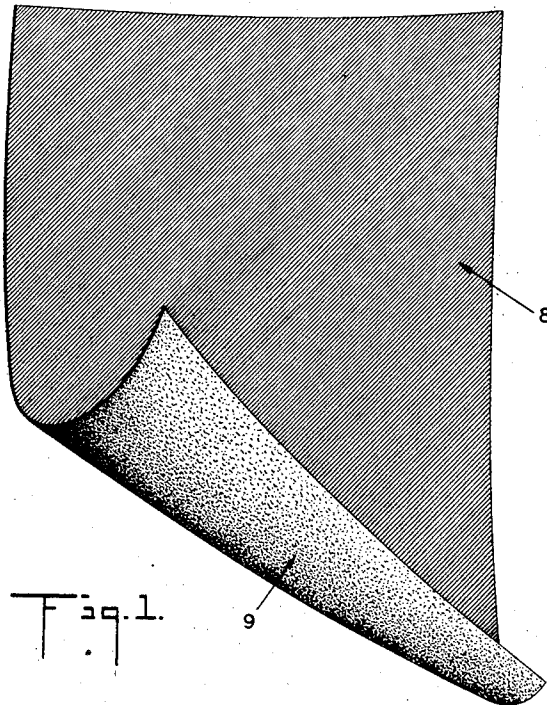


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LINING FOR GARMENTS

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1 Claim. (Cl. 139—413)

In a generic sense this invention relates to composite fabrics and method of making same, and in particular to a lining which combines a lustrous and smooth finish with material having heat retaining qualities.

In the manufacture of topcoats, overcoats, sport and other garments utilizing silk, satin, and similar linings, it is frequently necessary to insert between the lining and the outer cloth a wool, cotton or like interlining to provide warmth. This necessitates special cutting, basting and sewing, materially increasing the expense of the garment.

It is the specific object of my invention to provide in an integral cloth the combination of a lustrous and smooth finish with a material having heat retaining qualities of an interlining.

Another object contemplates the provision of a construction capable of many different combinations of materials, furnishing both a smooth surface lining and a heat retaining back—the structural characteristics of the resultant unit-fabrics being marshalled together in unique fashion to eliminate the necessity for a separate interlining.

And as the material which provides warmth in the composite fabric is often napped before use, it is essential that the coarse lining lay on top of the inner filling, to the end that the tensile and tear strength of the cloth will not be impaired by contact with the napping knives.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

Generally the invention consists in weaving one single set of warp threads with two different sets of filling threads, one set of filling threads consisting of continuous filament yarn twisted in various degrees, and the other set comprising a staple loosely spun yarn. I may employ for the warp and one filling such textile fibres as rayon, silk, or similar materials of continuous filament fibres, while for the other filling wool, cotton or other suitable fibre may be used.

To the accomplishment of the recited object and others co-ordinated therewith, one embodiment of my invention resides in the construction and arrangement of parts hereinafter described, illustrated in the accompanying drawing and embodied in the scope of the appended claim.

In said drawing,

Fig. 1 represents a plan view of the lining, showing the surface and one corner, turned over to illustrate the back.

Fig. 2 is a combination view of cross-sections

of adjacent courses, showing the interlacing of one warp thread with two sets of filling.

Fig. 3 is a combination view of cross-sections of adjacent courses showing a modified interlacing of one warp thread with two sets of filling.

In the drawing referring to Fig. 2, 5 represents the warp, 6 the filling of continuous filament or tightly twisted yarn and 7 the loosely spun or coarse yarn filling. Generally, I use the same type of yarn for both warp 5 and filling 6. In the interlacing illustrated in Fig. 2, the top one of the combination view is a cross-section showing the interlacing of one warp thread with two sets of filling, while the bottom view shows the next adjacent course either immediately preceding or following the top view. Referring to the top view, filling 7 is so inserted into the cloth that for every pick of filling 6, one of the coarse picks of filling 7 will slide on top of and overlap one pick of filling 6. Warp 5, as can be seen, engages every second pick of filling 6 and every fourth pick of filling 7. In the next course, as depicted in the lower view, warp 5 engages the picks adjacent to those shown in the top view. This procedure is followed throughout the weaving of the cloth. The lining so constructed presents smooth and lustrous surface 8, while filling 7 comprises the warmth producing back 9. Back 9 can be napped, if desired, or used plain.

An important feature to be noted is that by using two sets of filling, as I have combined them, the coarse filling will invariably slide on top or overlap the continuous filament or tightly twisted filling, which protects the latter from the napping machinery, thus reducing to a minimum the loss of tensile and tear strength which ordinarily results from napping, since in my lining the napping knives only contact filling 7.

My construction, moreover, lends itself to the provision of two sets of tightly twisted yarn fillings and two sets of loosely woven yarn fillings—if more than the ordinary heat retaining qualities are desired.

In Fig. 1, illustrating the finished product after napping, smooth and lustrous surface 8 is depicted, with back 9 shown in part.

In Fig. 3, depicting one of the variations of which my construction is susceptible, warp thread 5 engages every second pair of picks of filling 6, and every eighth pick of filling 7; the top view of Fig. 3 is a cross-section showing the interlacing of one warp thread with two sets of fillings, and the lower view an adjacent course. As in Fig. 1 all of the warp threads 5 present smooth surface 8, while filling 7 presents back 9.

For the warp 5 and filling 6, I may employ various tightly twisted or continuous filament textile fibres, as for example, rayon, silk or the like—any one of which, when woven into the composite fabric are capable of presenting a smooth lustrous finish suitable for a garment lining. For the second filling I may use any loosely spun yarn, such as wool or cotton, any blend combining cotton, wool or synthetic fibres, or any other yarn having heat retaining qualities.

10 Additionally, varied weaves may be used to construct my fabric, though in all of them the coarse filling lays on top of and overlaps the continuous filament or tightly twisted filling. The warp, for example, may engage every 5th pick of fine filling and every tenth pick of loosely spun yarn along each course. Or in another weave, the warp may turn around every eighth pick of the fine and every sixteenth pick of the coarse filling.

20 By the use of my construction I have eliminated the necessity for a separate interlining having heat retaining qualities in all garments employing silk, rayon or similar lining materials, materially reducing the cost of production, by eliminating the special cutting, basting and sewing steps. Furthermore, I have constructed a unique

combination fabric that presents to the knives during the napping operation only the coarsely woven filling—thus reducing to a minimum the loss in tensile and tear strength that ordinarily occurs during this operation.

5 In its broader aspects the invention comprehends the employment not only of the means described, but of equivalent means for performing the recited functions. It is desired to reserve the right to effect such changes as may come fairly within the scope of the appended claim.

I claim:

15 A lining for garments having a woven, lustrous and wear-resisting outer face and a warmth-retaining inner face, consisting of a set of face filling threads of lustrous and durable material, a set of back filling threads of warmth-retaining material, and a single set of warp threads of material similar to the face filling threads, said warp threads being interlaced at frequent intervals with the face filling threads and only at infrequent intervals with the back filling threads, so that the face of the fabric will have a minimum of face floating threads, whereas the back has an optimum of floating filler threads.

EDWIN E. MEIER.