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2,059,792

COATED FABRIC

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FIG. 1.

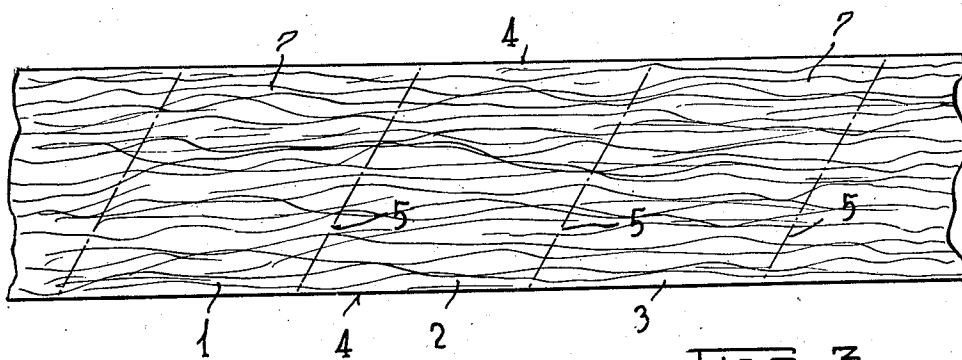
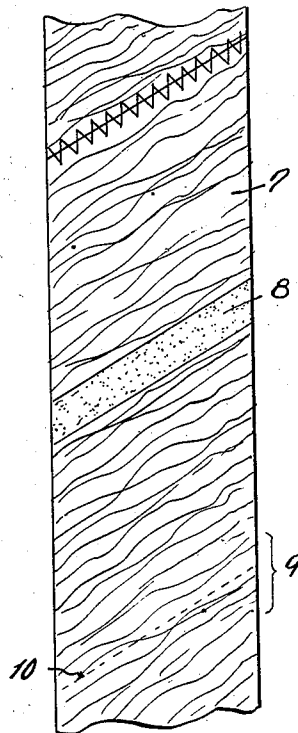
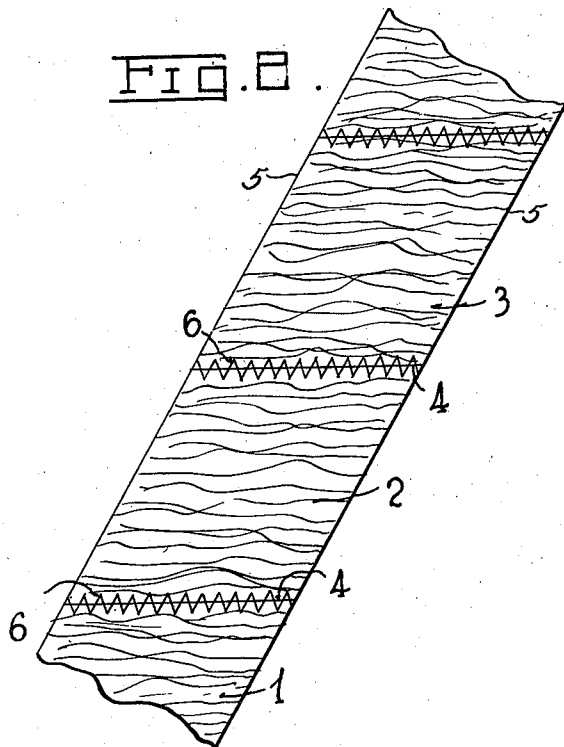


FIG. 3.

FIG. 2.



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COATED FABRIC

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5 Claims. (Cl. 2—274)

My invention relates to coated fabrics of the kind typified by artificial leather.

The coated fabrics to which my invention relates are formed by applying a coating in an initially plastic form, of which pyroxylin is representative, to a woven textile fabric. When the coating sets the coated side of the fabric presents an unbroken, ornamental surface which simulates natural leather. These coated fabrics are extensively used in many arts, but my invention has particular reference to the provision of a coated fabric which is well adapted to be used in the manufacture of welts, gimps and binding for use in upholstery trimming and in trimming automobile bodies.

Such trimming must be capable of being turned through curves of relatively short radius in the plane of the fabric. Consequently the fabric must be inherently more pliable and flexible than is ordinary square woven material with or without an applied coating. That is to say, the woven material which constitutes the base of the coated fabric must be bias cut to provide sufficient inherent flexibility to permit the fabric to be disposed about short turns in the flat plane of the fabric without objectionable wrinkling and puckering.

It is convenient to make the fabric of goods which are initially square woven in any conventional loom. The present invention provides a method by which such square woven goods can be cut into sections on the bias and the sections sewed together to provide a strip of bias material in an indefinite length.

The present invention has particular reference to the application of a coating substance to the sewed-together sections to cover and conceal the junctions of the several sections, so that the indefinitely long strip of bias cut material provided by the invention is devoid of the appearance of seams along the lines where the several sections are joined.

According to the invention initially coated goods are cut into sections, the sections are sewed together, and the application of the coating substance is made to the goods in the area of the stitching. This special application of coating substance may be then treated as will be hereinafter explained to match the coating carried by the body of the sections.

I thus provide an indefinite length of coated fabric, the coated surface of which is devoid of evidence of sewing or any other irregularity, presenting the appearance of a single integral sheet of imitation leather or the like, and the warp and

weft threads of the base fabric extend at any desired predetermined oblique angle to the side edges of the strip. The material provided by the invention is therefore a strip of imitation leather which has inherently more flexibility and pliability than imitation leather whose base fabric is square woven, and therefore the material provided by the invention is well adapted to be used in the manufacture of the trimming elements suggested hereinabove.

A certain preferred form of embodiment of the invention is illustrated in the accompanying drawing, in which the same reference character designates the same part in the several views, and in which

Figure 1 is a plan view of a strip of square woven coated textile material showing certain lines along which the material is cut;

Fig. 2 is a plan view of the sections cut from the goods shown in Fig. 1 rearranged and sewed together to provide a new strip; and

Fig. 3 is a plan view showing the treatment of the strip of Fig. 2 contemplated by the present invention.

Referring now to the drawing, I show in Fig. 1 a portion of a bolt of any suitable square woven textile material the warp and weft threads extending respectively parallel to and at a right angle to the side edges of the strip. Such a strip, particularly when coated with pyroxylin or the like to produce a length of artificial leather, has a relatively low degree of flexibility and pliability and is therefore not capable of being deformed around curves in the flat plane of the material without objectionable wrinkling and puckering. To provide a length of artificial leather having the desired degree of flexibility and pliability I cut the coated textile material into sections designated 1, 2 and 3 in Fig. 1. The cuts are made along oblique lines across the strip of material and the resulting sections are therefore rhomboidal in shape. A typical section 2 is thus bounded by four edges, each opposite pair of edges being parallel, two diagonally opposite angles being greater than right angles, and the other two diagonally opposite angles being less than right angles. The edges 4, 4 of the section 2 are part of the original edges of the square woven strip. The edges 5, 5, are the lines along which the strip is cut to produce the several sections. The angle at which the edges 5, 5 are cut may be any angle less than a right angle.

The sections 1, 2, 3, etc. are reassembled so that the edges 4, 4 of adjacent sections meet in butt relation, and the edges 5, 5 of adjacent sec-

tions lie in prolongation of each other, as shown in Fig. 2. Adjacent butted edges 4, 4 are sewed together, preferably by a line of zigzag stitching 6, or any other type of stitching which will hold the sections fairly securely together and will provide a minimum of thread elevation above the surface of the sections. The strip thus formed, as shown in Fig. 2, is manifestly an indefinite length of bias cut material, capable of negotiating all the flat curves required of the trimming elements indicated hereinabove.

The coating of pyroxylin or the like, indicated at 7 in the several figures, is preferably one formed with a surface grain, as shown. The stitching 6 overlies this coating, and is more or less conspicuous. To remove it from sight, as well as to improve the bond by which it unites the sections 1, 2, 3, etc., I soften the coating under the stitching in any convenient manner, as by warming the material of the coating, and then cause the stitching to sink down into the softened coating, as by pressing it. Where the coating is pyroxylin a warm or hot roll may be passed over the stitching to soften the coating and press the stitching down into it. Plastic coating material similar to that originally used on the goods is then applied to the strip over the narrow zone of the stitching 6. This application of coating substance is shown at 8 in Fig. 3 and should of course match the color, texture, etc., of the original coating 7. If the original coating has a grain finish, the coating 8 should be similarly grained while still plastic. The area designated 9 in Fig. 3 shows one of the zones 8 after being grained, in which condition it is indistinguishable from the coating 7.

The dotted line 10 in Fig. 3 indicates the line of junction between adjacent sections of the base fabric. These lines of junction are completely covered and concealed by the layer of coating and are therefore not visible in the coated surface of the finished product.

The invention is capable of being embodied variously, and I therefore do not consider it limited to the precise steps hereinabove described for purposes of exemplification. Thus, for example, it is immaterial whether the originally coated fabric sections be sewed together before the marginal coating is softened to receive the stitching or whether the softening step be practiced before the sewing step. Accordingly, in those of the appended claims where these steps are recited, it is to be understood that the order of the steps is of no importance. Such claims are intended to cover the combination of the sewing and softening steps in whatever order practiced.

Other variations may be made in the order and character of the several steps of the method and changes may be made in the materials used. All such variations in the practice of the invention are to be deemed within the spirit thereof and within the scope and purview of the appended claims.

I claim:

1. A method of making a coated fabric in relatively long strip form having a bias woven textile base which comprises cutting at oblique angles a length of square woven coated goods having

parallel side edges to provide a plurality of rhomboid sections, arranging the sections end to end with the named parallel side edges of adjacent sections in butt relation, sewing the adjacent edges together, softening the coating beneath the stitching, pressing the stitching into the softened coating, then coating the stitched areas only with a plastic coating substance to a depth sufficient to cover and conceal the stitching and the joints between the sections.

2. A method of making a coated fabric in relatively long strip form having a bias woven textile base which comprises cutting at oblique angles a length of square woven coated goods having parallel side edges to provide a plurality of rhomboid sections, arranging the sections end to end with the named parallel side edges of adjacent sections in butt relation, sewing the adjacent edges together, hot rolling the stitched areas to soften the coating beneath the stitching and press the stitching into the softened coating, then coating the stitched areas only with a plastic coating substance to a depth sufficient to cover and conceal the stitching and the joints between the sections.

3. A method of making a coated fabric in relatively long strip form having a bias woven textile base which comprises cutting at oblique angles a length of square woven coated goods having a surface grain and having parallel side edges to provide a plurality of rhomboid sections, arranging the sections end to end with the named parallel side edges of adjacent sections in butt relation, sewing the adjacent edges together, softening the coating beneath the stitching, pressing the stitching into the softened coating, then coating the stitched areas only with a plastic coating substance to a depth sufficient to cover and conceal the stitching and the joints between the sections, and then graining the coated stitched areas to match the original grain of the coated goods.

4. A method of making a pyroxylin coated fabric in relatively long strip form which comprises arranging a plurality of sections of pyroxylin coated fabric end to end in butt relation and includes the steps of softening the pyroxylin at adjacent margins of the sections, sewing the margins together in said relation, pressing the stitching into the softened pyroxylin, and then coating the stitching and the immediately adjacent area only with plastic pyroxylin matching the original pyroxylin to cover and conceal the stitching and the joints.

5. A method of making a pyroxylin coated fabric in relatively long strip form which comprises arranging a plurality of sections of pyroxylin coated fabric end to end in butt relation, and includes the steps of warming the pyroxylin at adjacent margins of the sections to soften it, sewing the margins together in said relation, pressing the stitching into the softened pyroxylin, and then coating the stitching and the immediately adjacent area only with plastic pyroxylin matching the original pyroxylin to cover and conceal the stitching and the joints.

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