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H. H. BAYNTON ET AL

2,104,941

RUG AND CARPET

Filed June 4, 1935

Fig. 1.

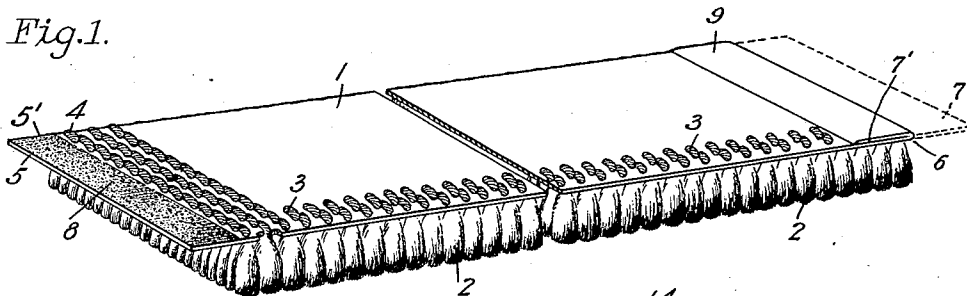


Fig. 2.

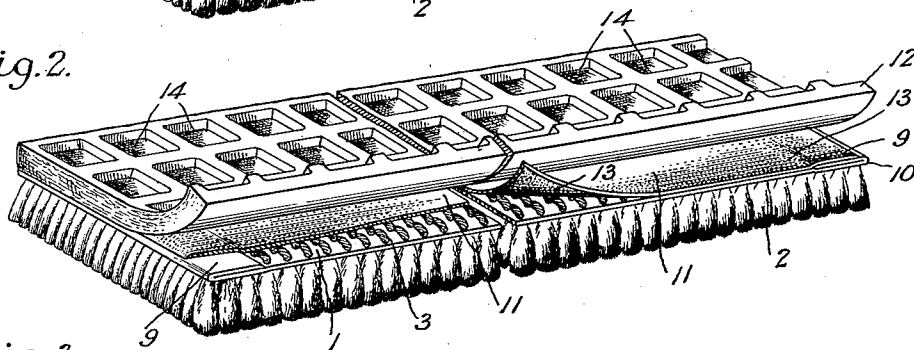


Fig. 3.

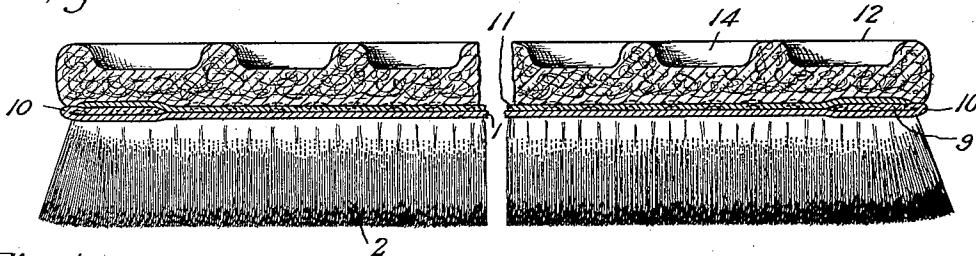


Fig. 4.

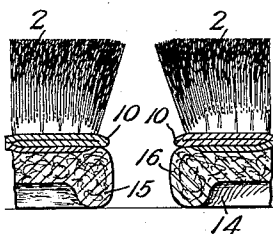
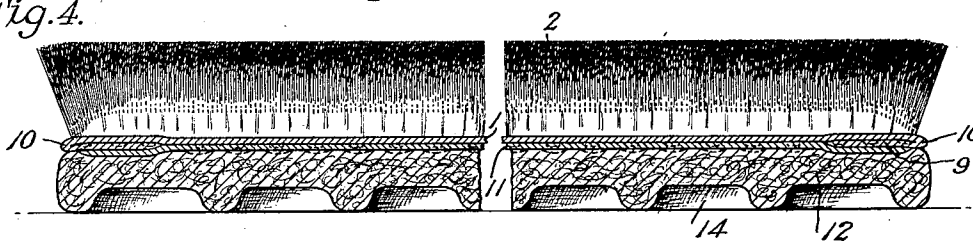


Fig. 5.

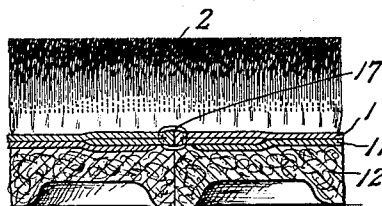


Fig. 6.

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## UNITED STATES PATENT OFFICE

2,104,941

## RUG AND CARPET

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Application June 4, 1935, Serial No. 24,940

5 Claims. (Cl. 154-49)

Our invention relates to new and useful improvements in rugs and carpets, and has for an object to provide a pile fabric that may be made into a rug and of the width of the loom and of any desired length, or may be made up of a plurality of sections or strips that may be conveniently sewed to each other and in such a tight manner that the seam will not be visible from either the top or bottom of the product.

Still another object of the invention is to provide a rug that may be made up of a plurality of sections, wherein the side edges (selvedge) of the tufted fabric have narrow marginal strips which are not tufted and are folded back on the fabric, leaving small protruding marginal folded edges, so that these edges may be conveniently sewed to like edges and the seams not perceptible in the finished product.

Still another object of the invention is to provide a pile fabric having narrow marginal spaces or what may be termed side strips that are not tufted and which are folded back on the tufted fabric, while over the fabric and the turned-back strips is cemented a further fabric layer, the cement used being a rubber in liquid form. This rubber-coated fabric holds the marginal strips in their turned-back position, holds each stitch in position, and also provides an elastic body to the pile fabric, thereby adding life to the rug or carpet and making the same exceedingly soft to the tread.

Still another object of the invention is to provide a pile or tufted fabric, which is so formed that a plurality of like sections or strips may be sewed to each other, over which a further rubber-coated fabric is secured, to which, in turn, is cemented a backing of felt of relatively great depth, so that the pile fabric (now a rug or carpet) in its finished form is exceedingly soft to the tread and gives the effect of a rug or carpet having a deep pile.

Still another object of the invention is to provide a tufted fabric, wherein each piece or section is provided with a non-tufted, slightly protruding, marginal edge, so that a like piece may be readily sewed thereto, while over these pieces there is an intermediate fabric coated on each side with a relatively thin coating of liquid-form rubber to which, in turn, is secured, while the rubber is still in an adhesive state, a felt pad or back to thus produce a rug or carpet of fine appearance, great wearing qualities, and as soft to the tread as other rugs with a far deeper pile.

Still another object of the invention is to provide a pile fabric, wherein the same, after leaving the machine, is placed into a machine, which machine forms the subject-matter of a separate application, to wit, an application filed July 18, 1935, Serial Number 32,098, on Machine for manufacturing pile fabric, and allowed January 19,

1937, and a layer of rubber-coated fabric secured thereto. This product may be kept in stock and sold either in this manner or the product may be again placed in the above-mentioned machine and a felt backing applied.

With these and other objects in view, the invention consists in certain new and novel features and combination of parts, as will be hereinafter more fully explained and pointed out in the claims.

Referring now to the drawing showing a preferred embodiment,

Fig. 1 is a perspective, showing a piece of pile fabric, one marginal edge strip shown before folding and the other marginal edge strip folded back on itself;

Fig. 2 is a similar perspective, but showing the intermediate fabric having been passed through a rubber cement and a felt back cemented in place, the front edges being turned back simply for the sake of clearness of illustration;

Fig. 3 is an enlarged sectional view showing the completed product with the exception of trimming the pile;

Fig. 4 is a view similar to that of Fig. 3, inverted, however, and showing the pile as having been brushed and trimmed;

Fig. 5 is a fragmentary sectional view showing two sections before they are sewed together;

Fig. 6 is a fragmentary sectional view showing the sections as being sewed together.

Referring now to the several views, there is shown in Fig. 1 a piece of burlap or other suitable fabric 1, with the pile or tufts 2 on its under surface, it being understood, of course, that the strip will have these stitches 3 of yarn filling up the entire fabric, as shown to the left of the figure. It will also be noticed that the respective stitches of the yarn, rather than abutting, as is the usual manner, slightly angularly overlap. The machine for forming this stitch and for tufting the fabric forms the subject-matter of the separate application heretofore mentioned.

Now it will be seen that the first row of stitches 4 to the left of Fig. 1 is slightly remote from the marginal edge 5 of the fabric, and in the same manner the stitches at the edge 6 terminate at a point remote from the marginal edge 7 of the strip for the purpose about to be described. These resultant marginal side strips 5' and 7' of the burlap 1 are then coated on their upper surface, as at 8, Fig. 1, with a liquid rubber cement, which is known in the trade as "Statite". The rubber, when applied, is in liquid form, but as soon as exposed to the air become thickened and highly elastic and forms an excellent resilient cement. Although relatively thin, it has a very desirable cushioning effect which, when considered with the pile and felt back, about to be described, makes an extremely soft yieldable rug

or carpet. After this fabric has been tufted in a machine (not shown), the marginal side strips 5' and 7' with their rubber cement coating thereon are turned back, as clearly shown at 9 in Fig. 1.

It will be noticed that when these strips are folded back on themselves, there is left a slight protruding turned-back edge, as at 10, (see Fig. 3), which is slightly remote from the first row of stitches of the yarn. The purpose of this will shortly be described.

Referring now for the moment to Fig. 2, there will be seen an intermediate layer 11 of fabric, preferably burlap, which, when used with the felt base 12, is coated on its opposite sides with the rubber cement 13, as shown by the stippling. As heretofore mentioned, this fabric securely holds the loops of the yarn in position, assists in holding the folded-back marginal strips in position, and also cushions the pile fabric as a whole. As may be seen in Figs. 2 to 6, to still further cushion the product, we apply a felt base 12, which is provided with the pockets 14, this felt base per se forming no part of the present invention. The felt base is known in the trade as "Ozite" and is readily purchasable in the open market. Thus, by coating the intermediate strip 11 on its opposite faces with the liquid rubber, it will be seen that the felt base will be tightly cemented to the strip 11 which, in turn, it will be remembered, is tightly cemented to the pile fabric 1. After the rubber once dries, the product now become substantially an integral structure.

Of course, this pile fabric may be made on a broad rug making machine, so that a rug may be made up without seams or may be made on a narrow loom and the sections sewed together, as about to be described.

If it is desirable to sell this pile fabric without the felt base, we then coat the layer of burlap only on its one face and cement it to the pile fabric, after which the product can be wound in convenient rolls and stored.

After the product has been completed either with or without the felt base, it will be inverted to the position shown in Fig. 4 and the pile trimmed by rotating cutters (not shown), as is the common practice.

Now in Figs. 5 and 6, there is shown how sections or strips of this pile fabric may be united, and although the edges 15 and 16 of the felt base (see Fig. 5) apparently extend beyond the edges 10 of the tufted fabric, it will be appreciated that this felt is easily compressed, due to its inherent structure, so that when the two edges 15 and 16 of the felt base are placed adjacent to be sewed, they (the felt edges) will not be in the way of the needle of the sewing machine (not shown).

In Fig. 6, there are shown the stitches 17 that are passed through the now meeting edges 10 of the two adjacent sections, and although the pile 2 is shown as extending over these threads, still when the sewing machine is stitching the two parts, the rows of the pile terminating short of the edges 10 will not be in the way of the needle.

After the two sections are properly sewed, however, the meeting edges of the pile can no longer be determined and the carpet or rug will have the appearance of a seamless article.

As heretofore mentioned, the tufting or pile forming machine forms the subject-matter of a separate application, as likewise does the machine for folding back the marginal side strips 5' and 7', the application of the intermediate

strip with its rubber cement and the application of the felt back.

By forming a rug or carpet with the form of stitches as shown, that is, overlapping, each tuft is in close proximity to its adjacent one and the tufting or pile is multiplied over the conventional stitch. Finally, the association of the intermediate strip together with its rubber coating and felt back make an exceptionally soft carpet or rug, which is generally found only in the very expensive Chinese or other Oriental rugs.

It will be understood that although we have found the present form of felt base and the cementitious rubber mentioned as being excellent for the purpose desired, still other similar products might be used without departing from the spirit and scope of the invention.

Finally, it will be noted that when the rugs or carpets are made up in the manner hereafter described, it is not necessary to put a glue sizing on the under surface of the rug or carpet to preserve it, as the cementitious rubber and the intermediate layer of burlap, as well as the felt, provide a soft resilient backing and a pliability and softness to the rug that is impossible in glue sized rugs.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:—

1. A rug comprising a tufted stitched fabric, selvedge side strips of the fabric extending beyond the marginal stitched rows of tufting and folded back on the pile fabric, and a layer of fabric cemented over the tufted fabric including the turned-back selvedge side strips, the cement locking the loops of the tufts against removal.

2. A stitched pile fabric having selvedge strips which are not tufted and which are folded back on the pile fabric, an intermediate layer of fabric having a coating of cementitious rubber thereon, one face cemented to the rear surface of the pile fabric and the folded-back selvedge strips, and a felt base also cemented to the intermediate layer of fabric, the rubber locking the loops against accidental removal.

3. A rug including a tufted pile fabric, the selvedge of the fabric not being tufted and folded back on the fabric and the said selvedge being cemented to the pile fabric, a felt base, an intermediate fabric coated with cementitious rubber for holding the pile fabric and the base in position, and the cementitious rubber also acting as an elastic body for the rug and embedding the loops to hold the same against accidental removal.

4. A tufted stitched fabric having selvedge strips that are not tufted, which strips are turned back on themselves but still protrude outwardly beyond the respective outer rows of tufting, and a rubber-coated fabric cemented to said pile fabric and over the turned-back strips, the rubber-coated fabric embedding each of the loops to prevent their removal.

5. A stitched tufted fabric having selvedge side strips that are not tufted, which strips are turned back on themselves but still protrude outwardly beyond the respective outer rows of tufting, a rubber-coated fabric cemented to said pile fabric and over the turned-back strips, the protruding edges providing convenient means for sewing like sections to each other, and the rubber-coated fabric embedding each of the loops to prevent their removal.

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