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END BINDING FOR FLOOR COVERINGS

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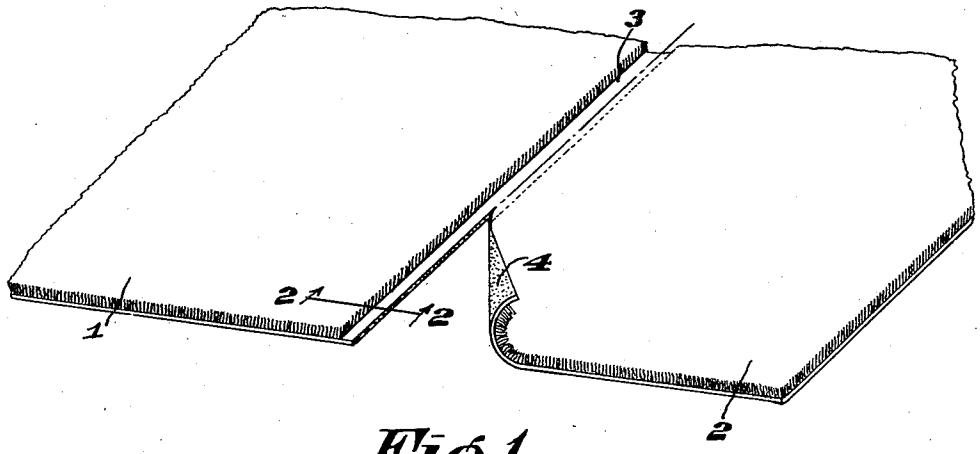


Fig. 1

Fig. 2

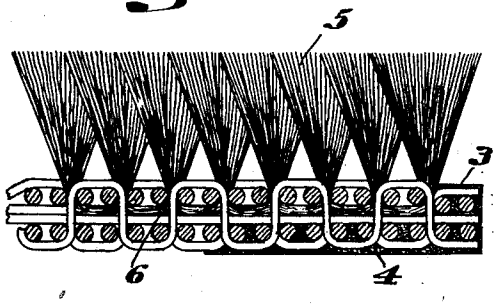


Fig. 4

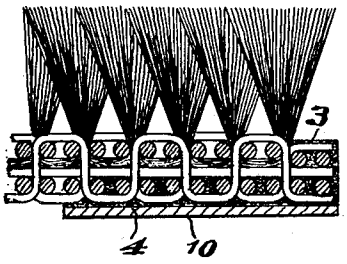
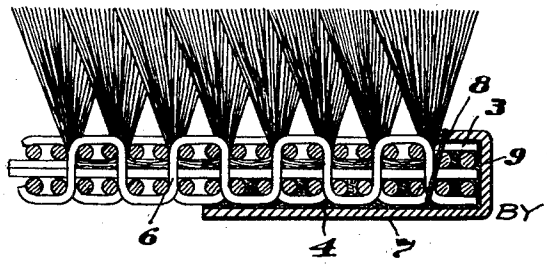


Fig. 3



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END BINDING FOR FLOOR COVERINGS

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3 Claims. (Cl. 154—49)

This invention relates to floor coverings, such as rugs and the like, and is more particularly directed to a binding for the end portion of such floor coverings or rugs.

Heretofore floor coverings, such as rugs having a pile surface and particularly those of the Axminster type have usually been woven in series connected end to end by a portion woven without pile and known in the art as a heading. When rugs are cut apart the terminal portion of the heading tends to ravel, and it has been the custom to weave the heading of sufficient width to enable the heading to be turned over upon itself and sewed, a condition rendered necessary to prevent the objectionable raveling of the thread structure. The heading as thus formed and sewed has introduced objections by the formation of a thickened portion or ridge at the end of the rug. Such ridge is, of course, objectionable since it presents an unfinished appearance, is subject to excessive wear, and in many instances the ridge presents a dangerous condition to one stepping on the rug. When rugs constructed as has been the usual custom are to be supplied with a fringe secured to the heading the objections hereinbefore noted are emphasized.

One of the objects of the present invention is to provide a binding for the end of the rug, such that the objections hereinbefore noted are entirely overcome and a finished condition and appearance obtained at the end of the rug. The term "heading" is herein used in its broad and general sense and signifies the terminal end portion of the rug which has been cut from its adjacent rug.

In carrying out the present invention the heading has applied thereto an adhesive of such a character that it will firmly bind the exposed or end shot portion when the rugs are cut apart and thus prevent raveling of the end shots without the customary lapping and sewing of the heading and consequent loss of material and time consumed in preparing it as heretofore practiced.

The adhesive which may preferably be latex or similar material may be applied to the heading either on its upper or lower surface or both to the end that the adhesive may impregnate the threads of the heading and preserve them in their woven positions without danger of raveling. The adhesive will usually extend on to the backing fabric of the rug, at least for a few shots, for a purpose that will later appear.

In applying the adhesive the heading and a few shots of backing fabric are preferably moistened with a solution of "Igepon" or other penetrating agent to facilitate the penetration of the subsequently applied adhesive. Compounds of the "Gardinol" group or any other suitable penetrating agent may be used for this purpose instead of "Igepon", with the result that the adhesive subsequently applied will pass into the heading and backing fabric and serve as a permanent binder for the end of the rug. In order that the end of the rug may present a finished appearance and be caused to lie flat upon the floor a tape or other textile fabric may be secured to the back of the heading and extend for a short distance on to the backing fabric. Under these conditions the previously applied adhesive will serve as a medium for connecting the tape or fabric to the heading and backing.

The invention and novel characteristics thereof will best be made clear from the following description and accompanying drawing.

In the drawing:—

Fig. 1 represents two rugs of a series connected together by an unpiled heading;

Fig. 2 is an enlarged section on the line 2—2 of Fig. 1 but showing the fabric after a further application of adhesive in addition to that shown in Fig. 1;

Fig. 3 is a similar enlarged section showing the terminal end portion of the rug having in addition to the adhesive a tape; and

Fig. 4 is a similar view to that of Fig. 3 wherein the tape is adhesively secured to the backing fabric alone.

As hereinbefore suggested rugs are usually woven in series end to end and the portion between adjacent rugs is known as the heading which, in accordance with the present invention, may be narrower than headings heretofore which had to be turned under and sewed. As indicated in Fig. 1 the two rugs 1 and 2 are joined together by a heading 3 which, as indicated, is narrow and may contain only one or more shots of the heading structure. Also, as indicated in Fig. 1, the adhesive represented by the stipplings 4 on the back of one of the rugs may be applied during the weaving operation, and while this may serve an advantageous purpose, the adhesive may be applied after the rugs are cut apart.

In Fig. 2 the pile tread surface 5 may be secured to the backing fabric 6 by passing about the upper weft shots, but so far as the present invention is concerned the particular concatenation of threads to form the rug may be varied indefinitely.

In Fig. 2 the adhesive 4 is applied to the end

portion of the heading and extends for several picks on to the backing fabric and it will be noted that the adhesive not only has a surface contact with the threads but penetrates into the heading 3 and the backing fabric 6 so that the threads become firmly bound in place as established by the weaving operation and obviously raveling of the thread structure is prevented.

The construction shown in Fig. 2 presents a finished and attractive end binding for the rug without anything in addition thereto.

In Fig. 3 the adhesive is indicated at 4 and like the similar condition in Fig. 2 the adhesive extends or penetrates the heading as at 3 and also the backing fabric 6. The construction thus far described in respect to Fig. 3 is or may be substantially the same as that in Fig. 2.

In addition to the adhesive applied as described, the construction in Fig. 3 shows a tape 7, the top portion of which is secured to the heading adjacent to the pile surface by suitable means such as the sewing thread 8. The tape 7 then passes about the end portion of the heading, as indicated at 9, and then extends over the backing fabric where the previously applied adhesive surface serves as the connecting medium between the tape 7 and the end portion of the rug or backing fabric. This construction lends itself advantageously as a sightly appearing end finish for a rug.

Fig. 4 which is substantially the same as Fig. 3 shows a modification wherein the back surface of the heading and the backing fabric is overlaid by a tape 10 which is secured to the under surface of the heading and to the under surface of the backing fabric by the previously applied adhesive 4.

As hereinbefore suggested the width of the heading 3 may be varied and in some cases may be only so extensive as to serve with the adhesive to hold the terminal threads of the rug in their woven position.

Whatever may be the additional features connected to the end of the rug the essential resides in the fact that the terminal threads of the rug are held in their woven positions by an adhesive such as latex or the like.

Instead of applying the adhesive, such as latex, to the terminal edge portion of the rug, the filling yarn or the stuffer yarn, if any, or the warp yarn, or all three may be treated with the adhesive, which after the carpet is woven may be rendered plastic by various means such as heat, and softened, and then be hardened to obtain a good bind of the yarns and the tufts which constitute part of the pile surface and prevent raveling.

What is claimed is:

1. A pile floor covering, composed of pile tufts secured to a woven backing fabric, said covering having a protruding portion of the backing fabric without pile and with a cut edge parallel to the weft, the said protruding portion of the backing fabric having at least one row of weft immediately adjacent said cut edge and warps interwoven with the said weft and terminating at said cut edge, and a binding material impregnating the said protruding portion of said backing fabric and a portion of said backing fabric contiguous thereto and coextensive with a plurality of rows of pile tufts, whereby to hold permanently together the constituent threads of the floor covering adjacent its cut edge.

2. A pile floor covering, composed of pile tufts secured to a woven backing fabric, said covering having a protruding portion of the backing fabric without pile and with a cut edge parallel to the weft, the said protruding portion of the backing fabric having at least one row of weft immediately adjacent said cut edge and warps interwoven with the said weft and terminating at said cut edge, a binding material impregnating the said protruding portion of said backing fabric and a portion of said backing fabric contiguous thereto and coextensive with a plurality of rows of pile tufts, and a tape, embracing the said cut edge, stitched to the backing fabric adjacent the last row of pile tufts and adhered to the undersurface of the backing fabric.

3. A woven pile floor covering, composed of rows of pile tufts secured to a woven backing fabric, said backing fabric having a cut edge parallel to the weft, and with at least one weft lying beyond the last row of pile tufts said weft being immediately adjacent said cut edge, warps interwoven with said weft and terminating at said cut edge, a tape embracing said cut edge and having a portion lying adjacent to the last row of pile tufts and a portion lying in contact with the bottom surface of said backing fabric, stitches securing said tape to said backing fabric and passing through the tape along a line closely adjacent to said last row of pile tufts, and an adhesive joining said bottom surface of said backing fabric to said contacting portion of said tape, whereby to hold permanently together the constituent parts of said floor covering adjacent its cut edge and to prevent raveling of its threads.

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