Aug. 27, 1935. R. G. KNOWLAND 2,012,929

FLOOR COVERING AND METHOD OF MAKING SAME

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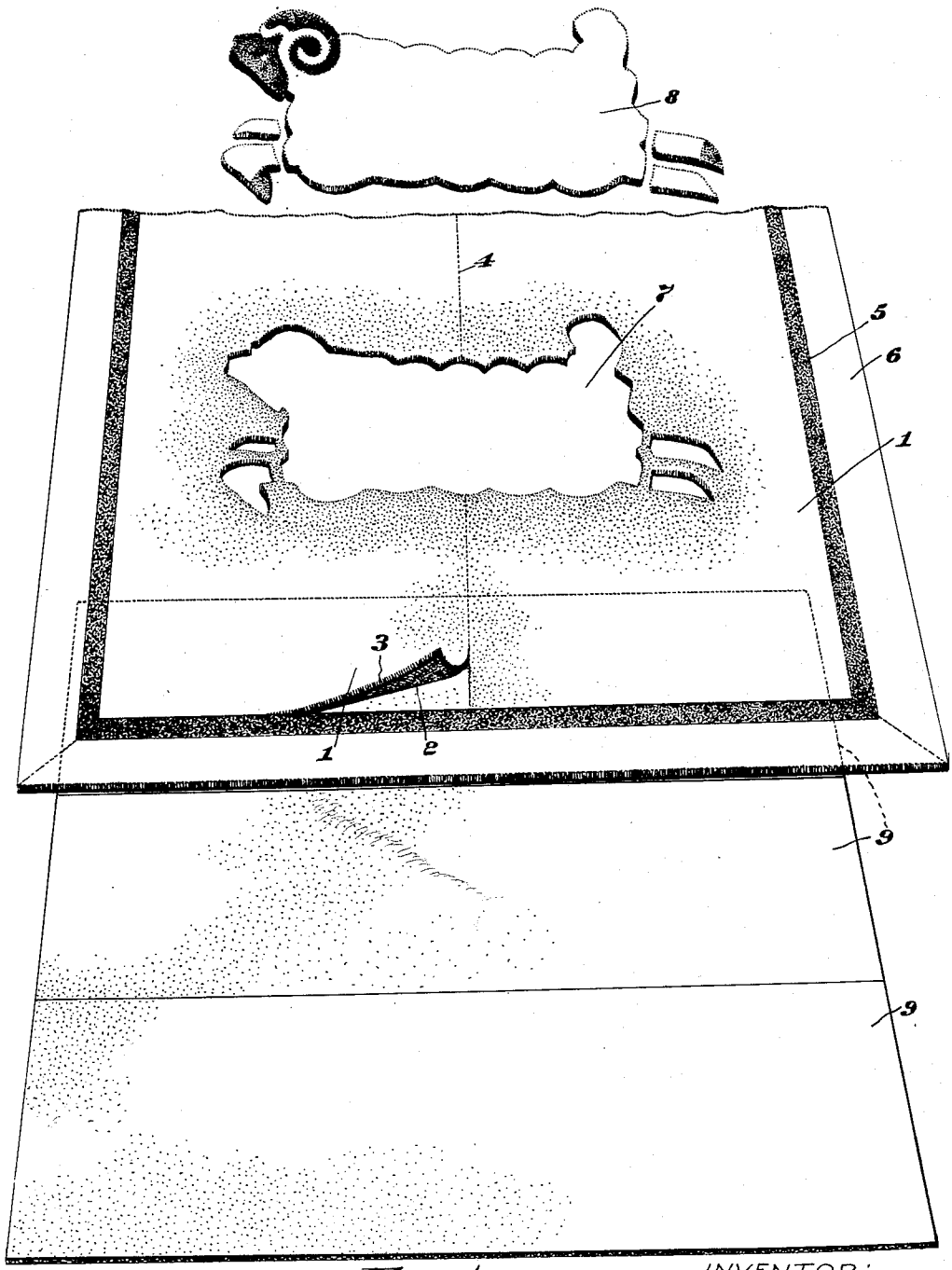


Fig. 1

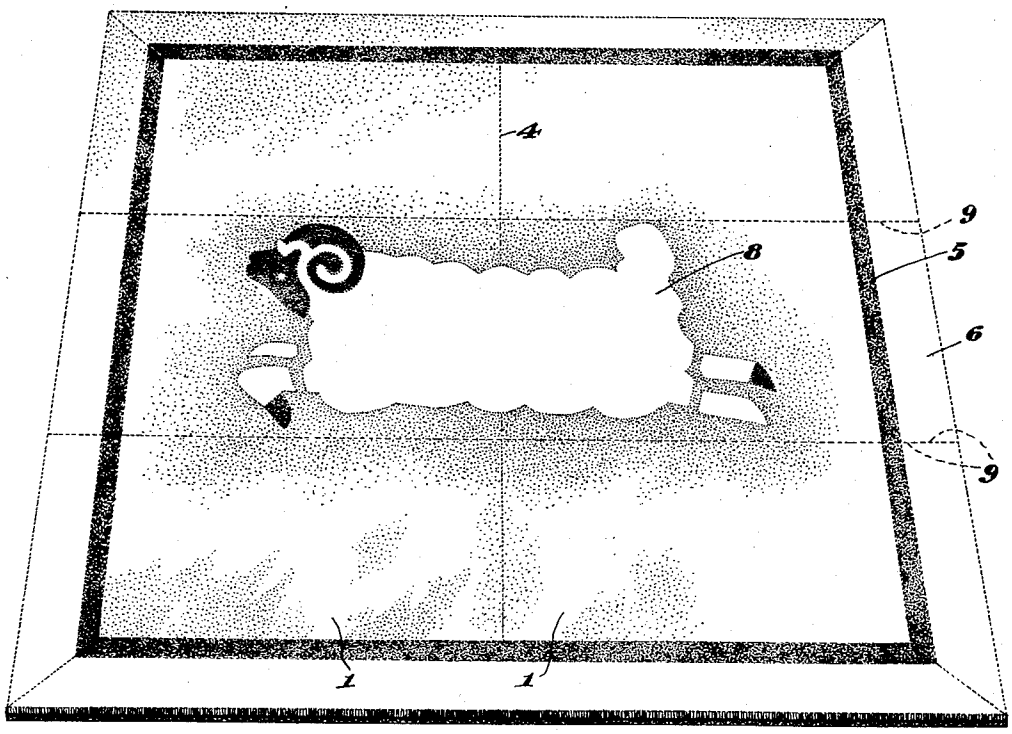
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Fig. 2



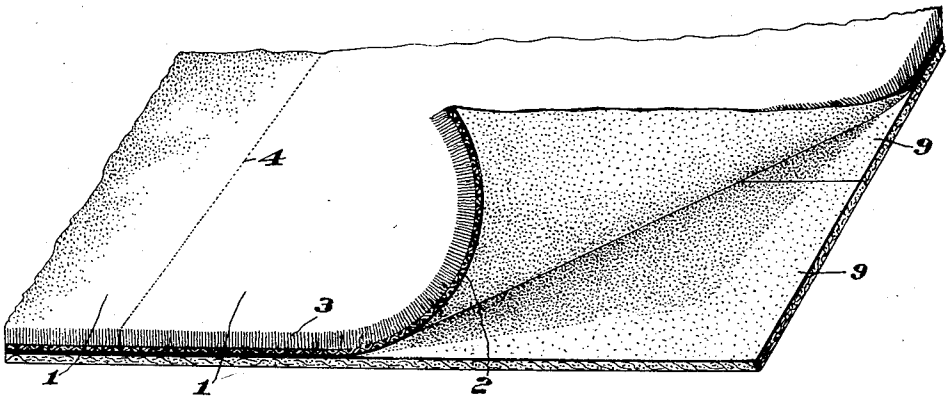


Fig. 3

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FLOOR COVERING AND METHOD OF MAKING SAME

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5 Claims. (Cl. 154—2)

This invention relates to floor coverings as typified in woven carpets and rugs and the method of making such floor coverings.

It has been the usual practice heretofore to combine several breadths or strips of carpet edge to edge to form a coverage area suitable to the floor to be covered and the adjacent edges of the breadths of carpet whether in rug form or plain carpeting have been secured together by a seam, such for instance as sewing. Such a seam, however, is open to the objection that it produces a ridge or bulge in the floor covering extending lengthwise of the carpet breadths or strips.

This matter has been recognized and attempts have been made to eliminate the objectionable seam and secure the breadths of floor covering together by an underlying narrow strip of tape cemented to the backing along the adjoining edges. This expedient has eliminated the objectionable seam but is itself open to a further objection in that unequal stretching of the fabric is liable to detach the adjoining edges from the underlying narrow strip, thus causing the separation of adjoining edges. Further attempts have been made to overcome this defect by securing the narrow strip of tape to the underlying portions of the carpet breadths or strips by metal clips in addition to the cement.

In its broader aspect the present invention provides a floor covering and method of making the same whereby stretching apart of the edges of adjacent breadths of fabric, unequal stretching thereof, and many of the difficulties encountered with other types of similar fabrics will be overcome, and to this end the floor covering is composed of breadths of pile fabric assembled edge to edge and having cemented to the back thereof by suitable adhesive, breadths of a cheaper fabric arranged crosswise of the pile fabric breadths, with the result that the underlying or backing fabric not only crosses the strips of the carpet or rug but likewise extends transversely of the adjoining edges thereof and the adhesive connections between it and the pile fabric strips permanently secure the edges of such strips or breadths in close abutting relation. The backing or underlying fabric is thus co-extensive with the floor area to be covered, that is, the backing fabric and superposed strips of pile fabric are substantially of the same area.

A floor covering constructed in accordance with the present invention may be produced at the manufacturing plant and rolled and shipped in substantially the same manner as the standard broad loom fabrics so that when unrolled and placed upon the floor the floor covering presents no seams and unequal stretching is prevented.

The adhesive for connecting the pile fabric breadths or strips and the underlying fabric may be applied either to the pile fabric strips or to the underlying fabric or to both, but in the preferred form of the invention the adhesive will be ordinarily applied to the back of the pile fabric, so that portions of such pile fabric may be removed and complemental portions of another pile fabric similarly supplied with an adhesive on its back may be substituted for the removed portions of the first pile fabric, thus producing a pattern or decorative effect, which becomes a permanent part of the floor covering when the underlying fabric is applied.

The invention and novel features thereof will best be made clear from the following description and accompanying drawings showing one good practical form thereof.

In the drawings:—

Fig. 1 is a disassembled perspective view showing a floor covering in the form of a rug with the parts ready to be assembled;

Fig. 2 is a perspective view of a rug containing the present invention and in its completed and assembled form; and

Fig. 3 is an enlarged detail showing the underlying fabric and the superposed pile fabric breadths.

As shown the floor covering is formed of a plurality of woven fabric strips 1, of which there may be any suitable number, and each comprises a backing fabric 2 to which the pile forming yarns 3 are secured. The pile fabric strips 1 are each provided on its back in the construction shown with an adhesive and are assembled with their adjacent edges in abutting relation, as indicated by the dotted line 4.

Since the pile fabric strips are provided with an adhesive on the back thereof the pile forming yarns are held from ravelling or falling out when the pile fabric strips themselves are cut or have portions removed.

It may be desirable at times to provide ornamental borders 5 and 6 and in order that the edges of the pile fabric strips themselves and the borders may be closely assembled in abutting relation, the selvage edges on the several strips may be removed.

The construction thus far described lends itself favorably to ornamentation by removing portions of the pile fabric strips and inserting into the removed portions complemental pile fabric or other character of fabric, the back of which has

been similarly treated, in other words, supplied with an adhesive.

As shown in Fig. 1 the pile fabric strips have had removed therefrom a portion representing the outline of a sheep as at 7 and since the pile fabric strips are provided with an adhesive on the back the pile yarns are prevented from ravelling or becoming detached.

Similarly, the ornamental insert may be formed of another pile fabric similarly treated, that is, the backing of the ornamental pile fabric will be supplied with an adhesive so that the pile forming yarns of the insert will remain undisturbed when the ornament is died out from a second pile fabric. In the present instance, the ornamental insert is shown in the form of a sheep 8 which is complemental to the removed portion at 7 in the pile fabric strips. In order that the assembled parts may be held in their assembled relation with the edges of the several parts abutting there is another underlying fabric formed of a cheaper material which may or may not be provided with an adhesive surface. The strips 9 of the underlying fabric extend crosswise or transversely with relation to the pile fabric strips and such strips of the underlying fabric are co-extensive with the pile fabric strips, so that when the pile fabric strips, as indicated in Fig. 1, are assembled with the edges of the strips and ornaments in abutting relation and the assembly is applied to the underlying transversely extending fabric and adhesively secured thereto, the parts constituting the tread surface of the floor covering will be held with their edges in close abutting relation and present no seam.

The underlying fabric may be conveniently formed of canvas which is not only flexible but of sufficient strengh to afford a backing to the tread surface of the floor covering throughout its extent.

Since the lengthwise dimension of the strips constituting the underlying fabric extend transversely to the pile fabric strips and their abutting edge portions any unequal stretch or pulling apart of any of the edges of the assembled parts will be prevented. This results from the well known fact that the warp threads of a fabric are under tension when woven and consequently any tendency of the floor covering to become distorted finds resistance in the counteracting effect of the underlying fabric strips.

When the tread surface constituted by the pile fabric strips has been assembled with the ornamentation and borders and adhesive applied to the underlying fabric, as hereinbefore described, the resulting floor covering takes the aspect as indicated in Fig. 2.

In assembling the pile fabric strips and its ornamentation, a suitable solvent may be employed to condition the adhesive on the back of the pile fabric strips and/or underlying canvas, so that when completed either at the manufacturing plant or in the field a floor covering is formed in which there is no visible seam and in case it be desired to contrast the ornamental insert with the rest of the floor covering the pile of the insert may be longer or shorter than the pile of the pile fabric strips or it may be differently colored, thus presenting a highly ornamental effect.

What is claimed is:—

1. A floor covering comprising strips of woven fabric having pile forming yarns constituting one face thereof and a backing to which the pile forming yarns are secured, and an underlying flexible fabric co-extensive with the floor covering and formed of strips of fabric extending crosswise relative to the pile supporting strips, and a flexible adhesive connecting the pile forming strips to the crosswise underlying fabric strips and serving to secure the pile forming strips with their edges in close abutting relation.

2. As an article of manufacture, a floor covering comprising a plurality of strips of woven fabric having a pile surface and arranged with their edges in abutting relation, and an underneath fabric coextensive with the floor covering and formed of fabric strips whose longitudinal dimension extends crosswise of the pile fabric strips and their abutting edges, and an adhesive connecting the underlying strips to the pile fabric strips and serving to secure the pile fabric strips to the underlying fabric strips with the edges of the former in close abutting relation.

3. A floor covering comprising strips of woven fabric having pile forming yarns constituting one face thereof and a backing to which the pile forming yarns are secured, and an underlying flexible fabric co-extensive with the floor covering and formed of strips of canvas extending crosswise relative to the pile supporting strips, and a flexible adhesive connecting the pile forming strips to the crosswise underlying canvas strips and serving to secure the pile forming strips with their edges in close abutting relation.

4. The method of making a floor covering which consists in applying an adhesive to the back of pile fabric strips, applying an adhesive to the back of another pile fabric, assemblying portions of the two pile fabrics to complete the pile area of the floor covering and adhesively securing both of the assembled pile fabric portions to a separate underlying fabric with its longitudinal dimension and warp threads crossing the abutting edges of the pile fabric strips.

5. A floor covering comprising strips of woven fabric having pile forming yarns constituting one face thereof and arranged with adjacent edges in abutting relation, an underlying flexible fabric formed of strips extending crosswise relative to the pile supporting strips so that the warp threads of the underlying strips may cross the abutting edges of the pile supporting strips, and a flexible adhesive connecting the pile supporting strips to the crosswise underlying strips and serving to secure the pile forming strips with edges in close abutting relation.

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