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F. H. HIGGINS

2,069,310

CARPETING

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Fig. 1

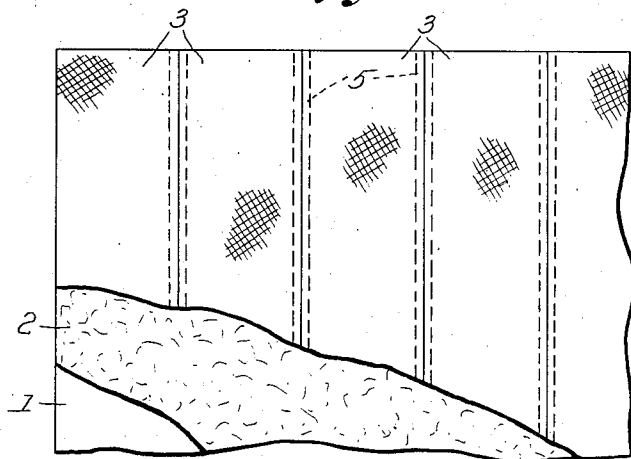


Fig. 2

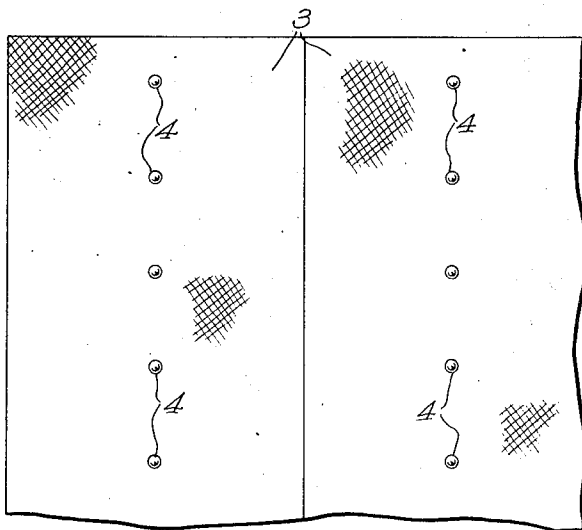
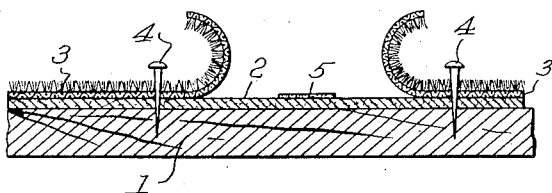


Fig. 3



Inventor:

FRANK H. HIGGINS.

By

R. C. Hoppard
Attorney.

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CARPETING

Frank H. Higgins, Upper Montclair, N. J.

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5 Claims. (Cl. 94—3)

My invention relates to floor covering of the pile fabric type which, when on the floor, has the appearance of having been woven to the maximum width of the covered area. Coverings of this type are known which, although having the appearance of being without seams, do in fact have seams which are unsewn but which are obscured by the pile of the fabric.

In joining adjacent strips of such known pile fabric floor coverings, the strips are arranged inverted with the pile face toward the floor and the edges to be joined with an unsewn seam are abutted and then a tape, provided with a coating of an adhesive, is applied to the backings of the adjacent strips and overlaps the joint thereby to unite the abutting edges and secure the tape to the backings of the two fabric strips. After the adhesive has set properly, the joined strips are then righted with the pile face up and placed in proper position on the floor to be covered.

This method of joining strips of pile fabric without sewn seams has the disadvantage that it can be applied only to solid color pile fabrics. When attempting to apply this method of joining to figured pile fabrics, it has not been possible to match properly the figures in adjacent strips because the pile is hidden and the figures cannot be seen. If an attempt is made to unite the edges of adjacent fabric strips while the pile thereof is faced up, no satisfactory means have been devised for holding the tape in proper position while applying it to the backing of the fabric strips. When this has been attempted, the resulting joined unsewn seam has not proven satisfactory because of the uneven manner in which the tape was necessarily applied.

My invention is designed to overcome these defects so that strips of pile fabric floor covering with figured designs may be put together without sewn seams and yet have the appearance of having no seams whatever. Furthermore, by means of my invention it has been possible so to join the strips of pile fabric in which the colored pile tufts are woven through the backing and fastened thereto without the aid of cements anchoring the pile tufts to the backing. The method heretofore employed for joining pile fabric strips without sewn seams has been applied only to pile fabric floor coverings in which the pile tufts are anchored to the backing by a coating which impregnates the backing. My invention is applicable to floor covering of both types, namely, that in which the pile tufts are anchored to the backing by an adhesive coating of some character,

as well as that in which the pile tufts are woven through the backing and are fastened thereto without the aid of an adhesive coating.

An embodiment of the invention is illustrated in the accompanying drawing, wherein,

Fig. 1 is a plan of the floor covering, partly broken away to show the lining.

Fig. 2 is an enlarged plan of two adjacent strips of the floor covering temporarily positioned preparatory to fastening the strips to the lining.

Fig. 3 is a sectional elevation of Fig. 2 illustrating the temporary position of the edges of the adjacent strips during the step of applying the adhesive to the lining.

According to my invention, the floor area 1 to be carpeted is first covered with a carpet lining 2 which is fastened to the floor by an adhesive cement preferably insoluble in water and/or by tacks, depending upon the character of the floor, whether it is wood or concrete. After the carpet lining 2 has been so applied and fastened to the floor 1, the pile fabric strips 3, 3 are cut into lengths appropriate for the area to be covered and in sufficient number therefor. Such carpet strips 3, 3 may be arranged on the floor 1 in approximately the position which they finally assume, and the longitudinal edges of adjacent strips may be matched after separately cutting or trimming said edges to a straight line. The cut, of course, is made a sufficient distance from the selvage of the fabric to provide at the cut edge a pile density like that of the remainder of the fabric. The carpet strips are then arranged in their final position on the floor, with the edges of adjacent strips in juxtaposed abutting relation so that these edges may be matched as to density of pile fabric and also as to the design in the carpet, if a figured carpet is being laid. Each strip is then temporarily fastened to the floor by means of stay tacks 4, 4 driven at intervals of approximately a foot throughout the length of the strip and about a foot from the edge. After so temporarily fastening each strip to the floor, the adjacent strips are turned back from the abutting edges. A layer 5 of water insoluble adhesive cement is then applied to the carpet lining along the line of the abutting edges of the pile fabric and overlapping this line each side thereof for a distance, say from 1½" to 2", so as to provide a sufficient width of cement to secure the strips of pile fabric to the lining. The turned over edges of the strips are then restored to their abutting position and are pressed into the cement. The temporary fastening by means of the stay tacks aforesaid holds the strips in

proper relative position during the application of the cement. Therefore, when these edges are restored to their abutting position flat on the carpet lining, they abut in matched relation, and if the pile fabric being used has a figured design such design appears continuous over the pile face. The cement not only secures the backings of the pile fabric strips to the carpet lining, but also unites the abutting edges of the strips. The cement penetrates the carpet lining and the backings of the pile fabric strips sufficiently to anchor all securely together. Furthermore, the pile tufts along the cut edges of the strips are firmly anchored to the backing by the cement, so that there will be no unraveling of the pile tufts. Each joint is treated in the same manner and after the cement has properly set, the stay tacks or other means of temporarily holding the strips to the floor are removed.

Carpet linings, as made at the present time, are of two well known types. One type of these linings is made up of a binder usually of jute and a very loose weave. A bat of fibres is spread out on the binder and, by means of a needle loom, the bat fibres are passed through the binder so as to project from either side thereof with the binder approximately in the middle. Such a carpet lining, if properly made, is suitable for use in carpeting a floor according to my invention.

The other type of carpet lining is made by spreading out the fibre bat and compressing it under pressure rolls with a glue sizing mixed in with the bat fibres. This type of carpet lining, if properly made, is also suitable for use in carpeting according to my invention.

I find, however, that for use with my invention an improved form of the first-mentioned type of carpet lining is especially advantageous. This improved carpet lining is made of a woven binder of fine or close weave with the bat fibres inserted therein, in the usual manner by means of the needle loom, so that the fibres extend farther to one side of the binder than to the other, whereby the binder is nearer one surface of the lining than the other. Such a carpet lining, when used in accordance with my invention, is applied to the floor with the longer fibres against the floor so that a firmer surface is provided for the lining upon which to secure and anchor the pile fabric floor covering by means of the adhesive cement. While there is a firmness between the pile fabric and the lining, the longer fibres between the binder of the lining and the floor itself afford a desirable cushioning effect for the carpet.

A water insoluble adhesive cement suitable for use according to my invention has a pyroxylin base. Such cements are quite well known in the carpeting industry and have been heretofore used in cementing the tape to the joint between adjacent strips of pile fabrics in accordance with the previously mentioned known method of so joining a pile fabric floor covering. Such an adhesive cement, preferably, should have approximately the consistency of strained honey at room temperature so that it can be spread readily on the carpet lining with a trowel or putty knife. The carrier, such as alcohol, ether, etc., used in the cement should be in an amount so that the carrier will have evaporated and the cement hardened and set in about twenty minutes.

Among the benefits and advantages of my invention is the elimination of the tape heretofore used in joining strips of pile fabrics, retaining the advantages whilst avoiding the disadvantages

and limitations of the tape, for my invention may be applied to plain as well as to figured carpeting with or without a binding coating applied to the back thereof. Furthermore, my invention now makes it possible to join figured piled fabric floor covering without welt sewn seams, which has not heretofore been possible. In addition, it is now possible with my invention to lay without welt sewn seams a carpet in which the pile tufts are woven through the backing. By being able thus to join abutting edges of adjacent strips of figured carpeting, such, for example, as the Axminster, longer life of the carpet is obtained and it shows less wear than when joined by welt sewn seams.

Inasmuch as the adjacent strips are joined at the matched abutting edges whilst the pile face is exposed to view, it is now possible to obtain a perfect match of the abutting edges, and if the carpet being laid is of the figured type the figures may also be perfectly matched. The anchoring of the carpet strips to the lining therefor along each joint firmly secures the carpet to the floor and prevents the creeping of the carpet experienced with similar carpeting put together according to the adhesive tape method.

In applying my invention to pile fabrics of the type in which the pile tufts are woven through the back, I have not found it necessary to anchor the pile tufts to the backing by means of an adhesive coating or otherwise before cutting the edge back of the selvage. Such an adhesive coating may be necessary with such pile fabrics if they are too loosely woven.

In order that the floor covering applied according to my invention may be washed while fastened to the floor, the backing of the separate strips of the floor covering should be coated with a water insoluble adhesive coating which, preferably, should penetrate the backing and the pile tufts to an extent sufficient to protect the pile tufts where woven into the backing, thus anchoring them there but not to such an extent as to penetrate appreciably the free pile. Thus, when washing the carpet while fastened in place on the floor, water will not penetrate to the lining and, consequently, rotting of the lining and the floor, if of the character which water would deteriorate, is prevented. The water insoluble adhesive cement, having a pyroxylin base hereinbefore referred to, is especially advantageous for this purpose and may, of course, be applied when the carpet is woven in the mill. Furthermore, since such adhesive cement is also insoluble in benzene, gasoline, naphtha and other agents used in dry cleaning, the floor covering having such an adhesive coating applied to the back thereof, and applied according to my invention, may be readily dry cleaned while fastened to the floor. Thus, whether such a carpet is to be washed or dry cleaned, it will be unnecessary to remove the carpet from the floor for such purpose. Such carpet will, therefore, have much longer life.

What is claimed is:

1. A floor covering comprising a fibrous, cushioning carpet lining, strips of fabric having a colored figured pile face and a backing with the pile yarn woven positioned on said lining with cut matching edges of said strips forming an unsewn joint therebetween, said lining and backing having substantially the same surface area and a water insoluble adhesive cement securing said backing to said lining adjacent said joint and anchoring the pile yarn along the cut edges to said backing and to the lining and securing

the abutting cut edges so that the pile obscures the joint.

2. A floor covering comprising strips of fabric having a pile face and a backing with cut matching edges forming an unsewn joint between said strips, and a fibrous cushioning carpet lining adjacent to and coextensive with the backs of said strips and adhesively cemented thereto at said edges and securing said edges so abutted one to another and to said lining, that the pile obscures the joint.

3. A floor covering according to claim 2 wherein said lining comprises a woven binder of close weave having bat fibres inserted therein and extending farther to one side of the binder than the other whereby the binder is nearer one surface of the lining than the other, said one surface of the lining being that attached to the backs of said strips.

4. A floor covering comprising strips of fabric

having a pile face and a backing with cut matching edges forming an unsewn joint between said strips, a fibrous cushioning carpet lining for and having substantially the same surface area as said fabric strips, said cut edges being attached to said lining by means of adhesive cement and held in abutted relation so that the pile obscures the joint between said edges.

5. A floor covering comprising strips of fabric having a figured pile face and a backing with cut matching edges forming an unsewn joint between said strips with the figures thereof matched, and a fibrous cushioning carpet lining for and having substantially the same surface area as said strips, said cut edges being attached to said lining by means of adhesive cement and held in abutted relation so that the pile obscures the joint between said edges.

FRANK H. HIGGINS. 20