

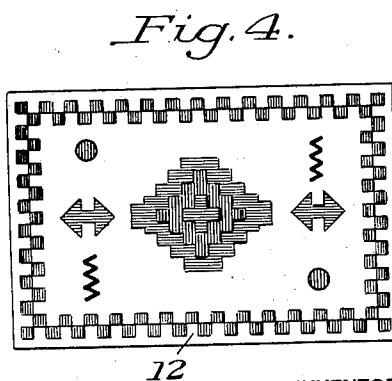
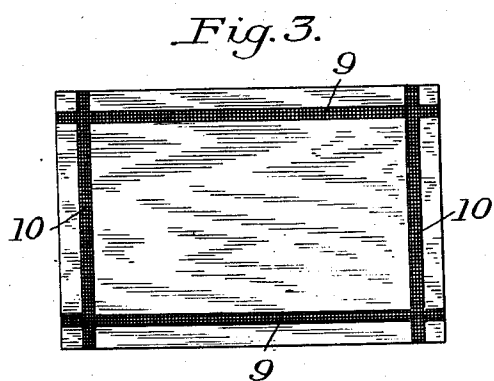
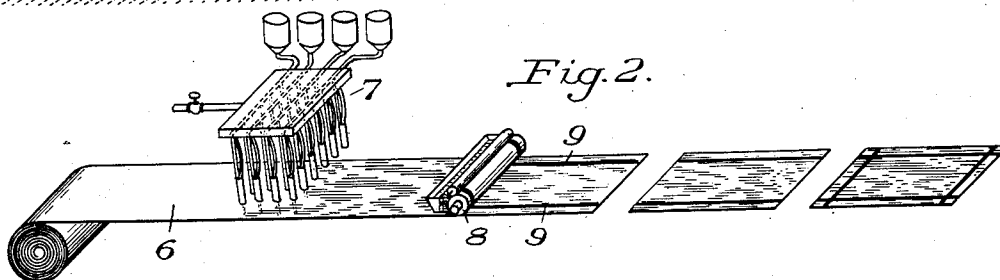
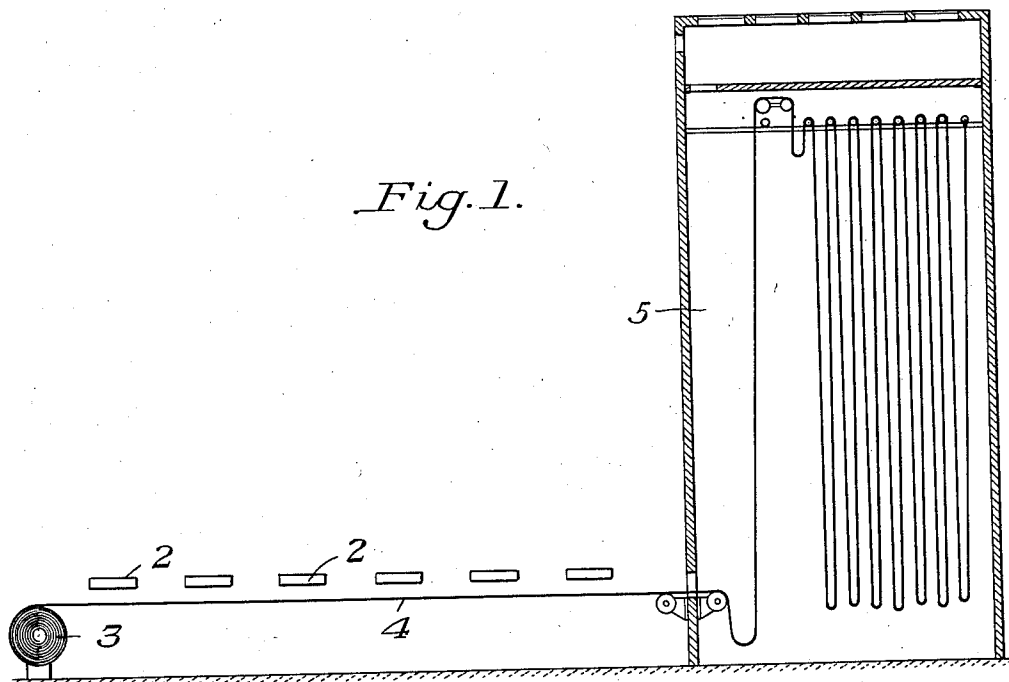
June 2, 1931.

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1,807,672

METHOD OF ORNAMENTING PRINTED HARD SURFACE FLOOR COVERINGS

Filed Oct. 9, 1928



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METHOD OF ORNAMENTING PRINTED HARD SURFACE FLOOR COVERINGS

Application filed October 9, 1928. Serial No. 311,336.

This invention relates to hard surface floor coverings, such as linoleum and felt-base goods, and to the method of decorating them.

the felt and thus will not cause the felt to curl or warp. This imposes limitations in the selection of the paint employed.

According to the present invention, it is proposed to make the material reversible by applying a decorative pattern to each surface of the goods. The invention also contemplates the use of a decorative coat selected without reference to its coefficient of expansion. By using paints of similar coefficients of expansion on opposite faces of the material, one will counteract the other and tend to keep the material flat under varying thermal conditions.

The invention may be readily understood by reference to the accompanying drawings, in which

Figure 1 illustrates diagrammatically the first step in the process of making a reversible rug in accordance with the present invention;

Figure 2 is a similar diagrammatic view showing the further steps in the process of rug printing and decorating in accordance with my invention;

Figure 3 is a plan view of one side of the rug; and

Figure 4 is a plan view of the other side of the rug.

In the practice of the present invention, the material which has had the back thereof coated in accordance with the usual practice is wound into rolls, as is customary in the art. A roll of material is then placed in the printing machine or other decorating mechanism. It is intermittently fed through the printing machine under a series of printing blocks 2. The roll of material is designated 3, and 4 designates the web of material passing under the printing block. When the material emerges from the printing machine, it has a rug pattern printed thereon, as shown in Figure 4, the pattern forming an ornamental wear resisting coating and hereinafter called the "primary" decoration. The material passes from the printing machine into a drying stove 5 where it is festooned or racked.

After the paint has dried, the material is taken down. The under surface, which has already been coated all over in accord-

According to the present practice in the art, a thin coating of paint of a single color is applied to the back of floor covering materials, while a heavy decorative pattern is usually, but not necessarily, applied in a block printing machine by means of which well defined patterns are printed over the surface of the goods. The goods are printed as a continuous strip. On emerging from the printing machine, the strip passes into a stove where it is festooned, or racked. It is subsequently taken down and cut into lengths. In the case of rugs, it is of course cut with reference to the cross border patterns so that each piece which is cut off will be a complete rug.

When a decorative pattern on the wearing surface of the rug is worn off, there is no protection afforded to the material itself, and the material rapidly wears away. The rug cannot be reversed because the plain color applied to the back thereof is not attractive and it is very thin, offering little resistance to wear. It has been proposed to make reversible rugs by printing a decorative pattern on each side thereof. This is not commercially practicable, however, due to the stretch of the material in printing and in hanging in the stoves, the pattern on one side does not always register with the patterns on the other side, making it difficult, if not impossible, to cut the rugs apart and preserve the symmetry of the patterns on both sides. It frequently happens that odd length rugs must be printed to avoid defects in the material. All of which makes it commercially impracticable to register rugs printed on both sides of a continuous strip.

In the printing of rugs, particularly felt-base rugs, as disclosed in Foster Patent No. 1,249,734, December 11, 1917, the paint is selected with reference to the coefficient of expansion of the base material so that under varying conditions the heavy coating of paint on the wearing surface of the rug will expand or contract substantially the same as

ance with the usual practice with a plain flat color, then passes under decorating devices capable of producing an ornamental running pattern. This is shown in Figure 2 where 6 designates the strip of material. It first passes under a battery of air brushes 7 which spray spots of different colors onto the material or otherwise decorate its surface. A printing roller 8, or other device, then prints continuous side borders 9 in plain colors down the sides of the strip. The strip is then cut into lengths, the cut on rugs coinciding with the ends of the printed rugs as determined by the primary decoration.

After the rugs have been cut to length, end borders 10 are formed thereon either by a printing block or by a roller or by a brush or any other suitable means, the borders 10 corresponding in appearance to the borders 9. The position of the borders can register approximately with the position of the printed borders 12 of the pattern shown in Figure 4. Instead of the back of the rug having a definite length pattern, however, it has an all-over running pattern which is entirely unrelated to the border. The running pattern is hereinafter called the "secondary" decoration.

In this way, goods are provided which are decorated on both sides and which can be reversed by the user at different seasons of the year. The life of the rug is doubled because there are two ornamental wear resisting coatings instead of one. The dealer can offer a greater variety of patterns because of the goods being decorated on both sides, with a smaller stock of goods. Due to the fact that the pattern on one side is a running pattern no problem of bringing borders into registration is involved and the manufacture can be carried out in a simple way.

It is preferred to use a quick drying paint or lacquer for the secondary decoration, since the employment of such a decorating medium obviates the damage to the primary decoration which is incident to a second stoving of the material which would be required if oil paint were used in the secondary decoration. A stoving or heated drying of the secondary coating would require a second festooning or racking which would result not only in a certain amount of mechanical abrasion and damage to the primary decoration, but also chemical change and hardening or embrittlement of the primary oil paint coating due to its second exposure to stoving temperatures.

Since there is a heavy wear resisting coating on each surface of the goods, and each will be affected by thermal conditions, one will tend to counteract the other so that paints and coating materials of the desired quality and character can be used without reference to the coefficient of expansion of the base itself.

From the foregoing, it will be seen how, by

applying a running pattern to at least one side of the goods, the difficult problem of securing registration of borders is eliminated. Also, by applying cross borders on one side of the goods after the goods is cut into length, it is possible to have a rug effect on each side of the goods with little increase in cost.

While I have specifically described printing with color on one side and spraying on the other, the invention is not confined to the application of a printed pattern on either side, as both sides may be decorated by other processes. Moreover, the invention is not limited to the order of steps above described, since I may apply the "secondary" or running pattern first in oil paints or lacquer, then dry or harden the decoration and subsequently apply the "primary" pattern in paints or lacquer and again subject the material to drying conditions. After these decorations are applied, the strip may then be cut into lengths and the cross borders applied. The side borders used in conjunction with the "secondary" or running pattern are conveniently, but not necessarily, applied at the stage of manufacture at which the running pattern is applied.

While I have shown and described a particular way of carrying out my invention and a particular apparatus, it will be understood that this is merely by way of illustration and that various changes and modifications may be made therein within the contemplation of my invention and under the scope of the following claims.

I claim:

1. The method of making reversible floor coverings which consists in printing a succession of rug patterns on one surface of a long strip of goods, applying a running all-over pattern to the other surface of the goods without reference to said first patterns, cutting the rugs to length, and thereafter applying border patterns to the non-printed side of the goods.

2. The method of ornamenting printed hard surface floor coverings which consists in printing rug patterns having borders on one face of a long strip of hard surface covering material, thereafter forming a non-printed all-over pattern on the other face of said strip, then cutting the strip into lengths coinciding with the position of the borders on said first side of the goods, and thereafter applying cross borders to said other face of the printed rug.

3. The method of making reversible floor coverings which comprises applying a repeat pattern to one side of a long strip of floor covering material, applying a running pattern to the other side of the material without reference to the repeating pattern on the first mentioned side, cutting the strip into unit lengths as determined by the first applied pattern, and adding decorative elements to the surface having the running pat-

tern thereon at points determined by the line or lines of cutting of the material.

4. The method of ornamenting hard surface rugs which comprises printing rug patterns with cross borders on one surface of a long strip of floor covering material, producing a non-printed all over pattern on the other surface of the strip of floor covering, forming side borders on the said other surface of the strip, cutting the strip into rug lengths coinciding with the borders printed on said first surface thereof, and thereafter forming cross borders on said second surface.

5. The method of decorating hard surface rugs which consists in printing rug patterns with borders on one surface of a strip of floor covering material, spraying an all over running decoration onto the other surface of the material, applying running side borders to the spray decorated surface of the strip, cutting the strip into rug lengths according to the position of the printed rug patterns on the first surface, and thereafter applying cross border patterns to the spray decorated surface.

6. The method of decorating hard surface covering materials to produce rugs which consists in a succession of rug patterns having side borders and cross borders on one face of a long strip of material, thereafter decorating the other side of the strip with a running pattern and producing the side border continuously throughout the length of the strip, thereafter cutting the strip into rug lengths according to the position of the cross borders on the side face decorated, and then applying cross borders to that surface of the rugs on which the running pattern is applied.

In testimony whereof I have hereunto set my hand.

HENNING W. PRENTIS, JR.