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EXPANSION JOINT FOR FLOOR COVERING

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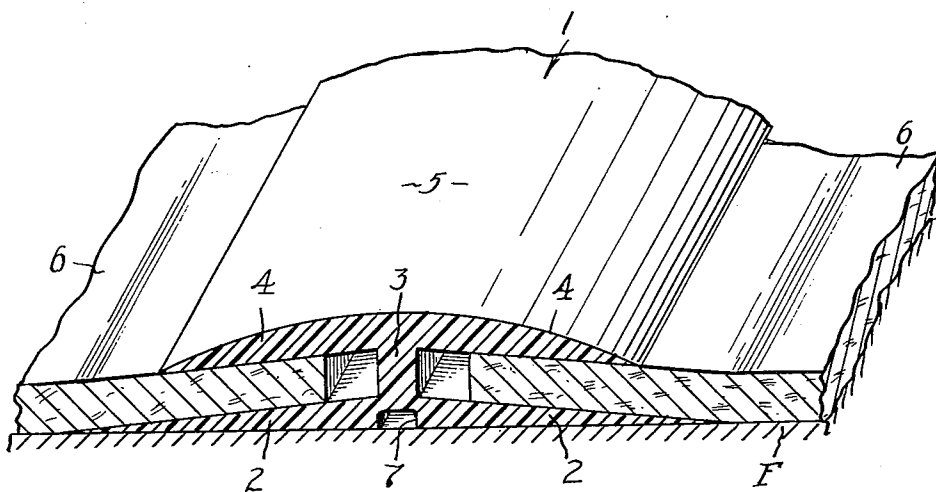


Fig. 1

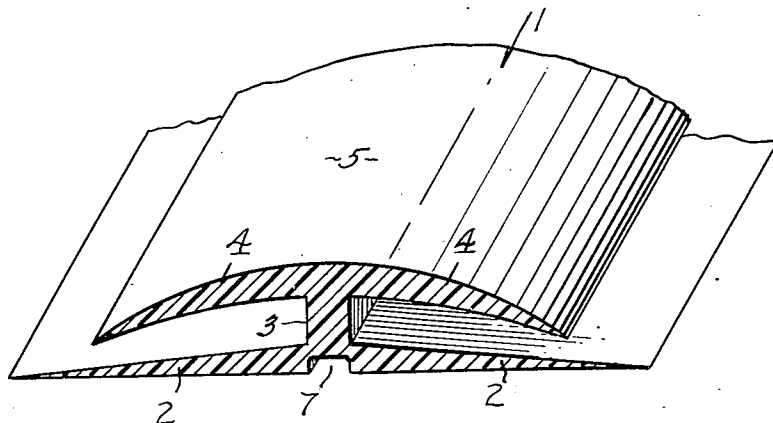


Fig. 2

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1

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EXPANSION JOINT FOR FLOOR COVERING

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1 Claim. (Cl. 16—16)

The present invention relates generally as indicated to an expansion joint for floor covering such as linoleum or the like, and has for its main objectives the provision of an expansion joint which is economical to manufacture and install, which is flexible to conform with floor surface irregularities, which is non-rusting and is inert to cleaning fluids, which lies flat on the floor without requiring cementing, nailing, or other means of fastening to the floor, and which smoothly bridges the gap between adjacent ends of floor covering material without danger of being caught by the shoes of people walking thereover or by cleaning implements.

Other objects of the present invention will become apparent as the following description proceeds.

To the accomplishment of the foregoing and related ends, the invention, then, comprises the features hereinafter fully described and particularly pointed out in the claim, the following description and the annexed drawings setting forth in detail a certain illustrative embodiment of the invention, this being indicative, however, of but one of a few of the various ways in which the principle of the invention may be employed.

In said annexed drawing:

Fig. 1 is a fragmentary cross-section and perspective view on much enlarged scale showing the present expansion joint; and

Fig. 2 is a similar cross-section and perspective view of the expansion joint strip, showing it in its originally manufactured form.

Referring now in detail to the drawing, the expansion joint herein comprises an elongated strip 1 of flexible material such as flexible plastic, for instance, a blend of polyvinyl chloride or polyvinyl chloride copolymers with selected plasticizers to provide oxidation resistance, and with pigments and fillers to suit color requirements.

A material having a hardness of 90 plus or minus 5 shore A durometer hardness has been found admirably suited for this purpose. Such material also has a tensile strength of about 2700 p. s. i., an elongation of 310%, and a tear strength of 362 lbs./in.

Said flexible strip 1 has relatively wide oppositely extending bottom flanges 2, 2, each of which gradually tapers from the upstanding web 3 from a thickness of about $\frac{3}{4}$ " to a sharp feather edge, the total width across said flanges being about 1". Said strip 1 also includes oppositely extending top flanges 4, 4 which form a convexly curved upper surface 5. Said flanges 4, 4 thereacross measure about $\frac{3}{4}$ " and said flanges likewise taper from a thickness of $\frac{3}{4}$ " to sharp feather edges.

The height of the web 3 is preferably about .080" to correspond to the thickness of the linoleum pieces 6, 6 which are adapted to be inserted between the respective pairs of said top and bottom flanges 2 and 4. The linoleum pieces 6, 6 are preferably trimmed so that their ad-

2

jacent edges are spaced apart, say, $\frac{1}{4}$ ", whereas the web 3 is only about $\frac{1}{16}$ " thick. Thus, the linoleum pieces 6, 6 are free to expand.

The bottom flanges 2, 2 of said strip 1 are joined by a longitudinally extending groove 7 under the web 3 which ensures that said bottom flanges 2, 2 will lie flat on the floor F; and, of course, because the strip 1 is flexible, it will follow any irregularities in the floor F.

Said strip 1 is preferably formed by extruding plastic material through a die, and in its initially extruded form said strip is shaped, as shown in Fig. 2, with the top flanges 4, 4 having their feather edges spaced closer to the bottom flanges 2, 2 than the thickness of the linoleum pieces 6, 6.

In this way, when the strip 1 is installed, the feather edges of said top flanges 4, 4 will lie in intimate contact with the top surfaces of the linoleum pieces 6, 6, whereby it will be difficult to displace the top flanges 4, 4 upwardly even with the fingernails or with the flat blade of a tool. Since the edges are sharp feather edges, dirt will not accumulate thereat nor will cleaning implements be caught thereby.

Without the longitudinally extending center groove 7 in the bottom of the strip 1, it has been found that, upon extrusion of the plastic material, the material at the web 3 tends to expand and thus forms a slight bulge. The provision of a bump in the die to form the groove 7 eliminates this problem and thus the bottom flanges 2, 2 will lie flat on floor F.

A preferred manner of installing the strip 1 constituting the present invention is first to raise the edge of one linoleum piece 6 and slip one pair of the top and bottom flanges 4 and 2 over such lifted edge, and then deform the other bottom flange 2 to place the same under the edge of the other piece of linoleum 6 while the other top flange 4 is deformed to overlie to the top face of such other piece of linoleum. As aforesaid, there is no need of securing the strip 1 by cement or other fastening means to the floor F.

Other modes of applying the principle of the invention may be employed, change being made as regards the details described, provided the features stated in the following claim, or the equivalent of such, be employed.

I therefore particularly point out and distinctly claim as my invention:

An expansion joint for floor covering comprising an elongated strip of extruded flexible plastic material which is integrally formed with a longitudinally extending vertical web and with oppositely extending top longitudinal flanges and oppositely extending bottom longitudinal flanges; said top flanges being tapered in thickness to present sharp feather edges, said feather edges being joined by an upper, smooth, convexly curved surface, said bottom flanges being tapered in thickness to present sharp feather edges spaced outwardly from the sharp feather edges of said top flanges and having interior flat straight surfaces, said strip being formed with a longitudinally extending groove along the bottom and underneath said web whereby said bottom flanges may lie flat against the floor, said top flanges converging toward said bottom flanges so as to resiliently grip adjacent pieces of floor covering when the same are inserted between said flanges.

References Cited in the file of this patent

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