Jan. 14, 1930. P. GALASSI 1,743,814

FLOORING STRIP

Filed Jan. 18, 1928

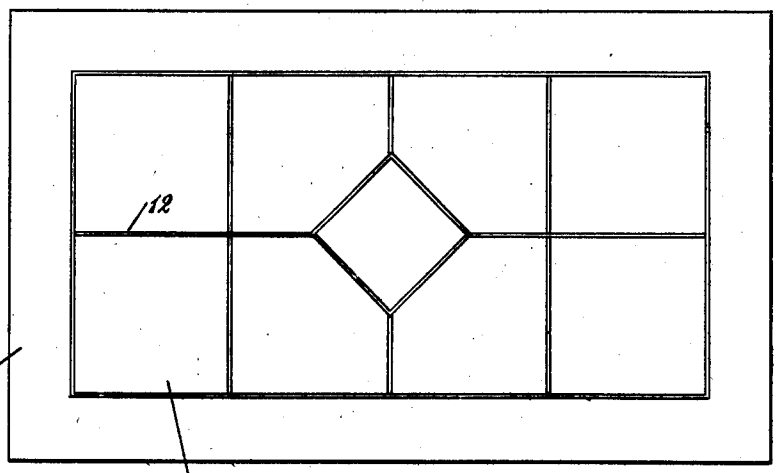


Fig. 1

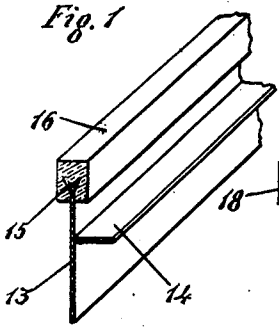


Fig. 2

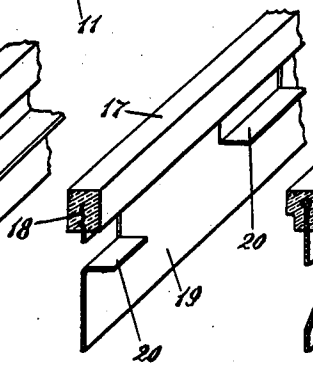


Fig. 3

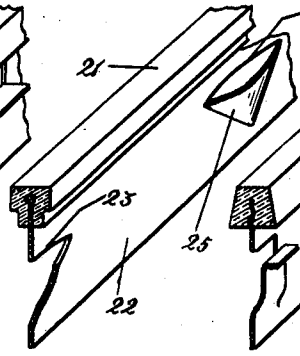


Fig. 4

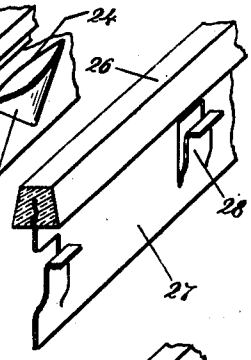


Fig. 5

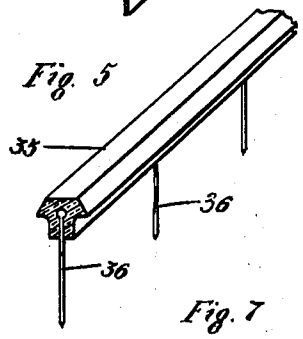


Fig. 7

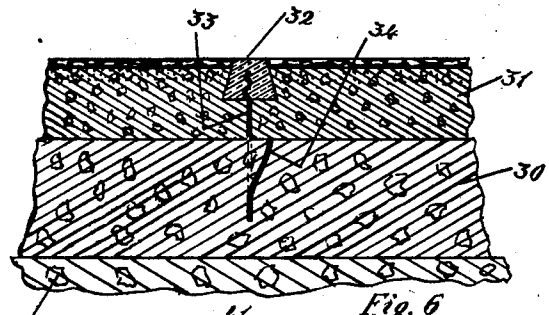


Fig. 6

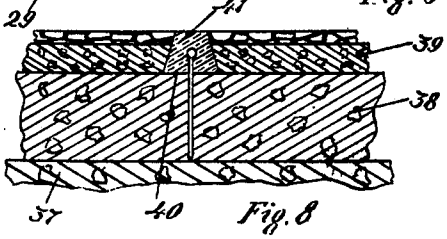


Fig. 8

Inventor

Pasquale Galassi

By his Attorney

Guido M. Lucchesi

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UNITED STATES PATENT OFFICE

PASQUALE GALASSI, OF NEW YORK, N. Y.

FLOORING STRIP

Application filed January 18, 1928. Serial No. 247,616.

This invention relates to improvements in the construction of floors made of plastic material such as terrazzo, granolithic and stucco, and more particularly the invention refers to a novel and improved type of strip suitable for use in laying floors of the character specified for the purpose of producing various designs and preventing or localizing cracking of the floor at the same time imparting to the floor anti-slip properties, increasing the safety of its use without detriment to either its appearance or its sanitary qualities.

Floors of the terrazzo type usually consist of a foundation layer or bed, made of concrete or cement or other suitable material which is spread in semiliquid form of the proper consistency on the floor base, and an upper or finishing layer of better grade material which is laid on top of the foundation layer after the latter has hardened to a certain extent.

The upper or finishing layer is generally composed of a layer of marble chips and cement, except in certain instances where it is desirable to produce an anti-slip floor, in which case, some suitable material such as alundum, or carborundum, or quartz sand, etc., is added to the mixture, producing a floor having a highly adhesive and frictional surface.

Anti-slip floors of this character however, are in certain respects unsatisfactory because they present an inferior appearance and they do not take a very high polish. Furthermore, their cost is considerably higher than that of ordinary floors and they have a tendency to quickly and easily collect dirt and dust which can only be removed in part and with difficulty.

Terrazzo floors generally are usually obtained by dividing the upper layer into a number of panels or units by means of dividing strips, these generally consisting of thin metal strips, laid on edge on or through the foundation layer, and projecting from the foundation layer a height corresponding to the thickness of the upper layer; so that when the floor is completed, the upper edges of the dividing strips are flush with the surface of the floor and therefore afford the possibility of producing a great variety of pleasing decorative effects.

These dividing strips are generally made of brass or other relatively soft metal, the wearing qualities of which are approximately the same as those of the floor composition used. Floors thus produced are both durable and inexpensive, they provide artistic effects and are also highly desirable from a sanitary standpoint because they generally have a smooth polished surface which is easily kept clean.

However, this very feature which is desirable from a standpoint of sanitation is apt to make these floors rather slippery, especially in places where their surface is likely to become wet due to people walking in from a rainy outdoors. In many instances therefore, especially in public buildings and halls and places of public passage, it has become imperative to provide floors having anti-slip properties, as previously pointed out.

The primary object of this invention is to provide a novel and improved type of dividing strip for terrazzo floors and the like, which is adapted to provide novel decorative effects, at the same time imparting to the floor anti-slip properties without marring the floor's appearance or durability or surface.

Another object of the invention is to provide a floor dividing strip of a novel and improved construction, adapted to impart anti-slip properties to a floor without materially increasing its cost of production.

A further object is to provide a floor dividing strip of a composite nature comprising a metallic supporting member and an upper body made of anti-slip material, said metallic supporting member being also adapted if desired to act as a dividing strip in the accepted sense.

Other objects and advantages of the present invention will more fully appear as the description proceeds and will be set forth and claimed in the appended claims.

Various embodiments of my invention, which is susceptible of being carried into

practice in different ways, are illustrated in the accompanying drawings, in which:

Fig. 1 is a plan view of a floor illustrating the manner in which the strips are used;

Fig. 2 is a fragmentary sectional view in perspective of a strip embodying my invention;

Figs. 3, 4 and 5 are similar features illustrating different types of strips, also embodying my invention;

Fig. 6 is a vertical cross section showing a strip embodying my invention in position, illustrating the function of the anchoring and positioning means;

Fig. 7 is a fragmentary sectional perspective view of a modified form of anti-slip strip, adapted for use in floors composed of relatively thin layers, such as those used ordinarily in stairs and small passages; and

Fig. 8 is a vertical cross section of a floor comprising relatively thin layers of plastic material, showing the strip illustrated in Fig. 7 in position.

In another application for patent, entitled, Method of and means for producing anti-slip terrazzo floorings, filed simultaneously herewith, I have described and claimed a method of producing anti-slip terrazzo floorings, entailing the use of dividing strips of an anti-slip nature in connection with floor compositions of the ordinary type.

The present invention more particularly relates to an anti-slip floor strip of a relatively inexpensive character adapted to be used for similar purposes. Referring to the drawings: 10 designates a typical terrazzo floor formed by a number of adjoining panels or units 11, separated by dividing strips 12.

The strip illustrated in Fig. 2 is composed of a metallic rib portion 13, which is formed with a laterally extending flange 14, and with a bifurcated upper portion 15. Said upper portion 15 is used as a core for the head portion 16 which is made of some suitable anti-slip material such as lead or anti-slip grain or cement composition formed and pressed in position onto the rib or supporting member 13. The strip is so designed that the lower surface of flange 14 remains at a distance from the upper surface of head portion 16, equivalent to the thickness of the finishing layer of the floor; so that flange 14 acts both as supporting means for the structure when the lower portion of rib 13 is inserted through the foundation bed, and as a gauge defining the thickness of the finishing layer.

When the floor is completed, as shown in Fig. 1, the only portion of the strip which will show is the upper surface of its anti-slip head 16, and it is therefore possible in strips of this nature to entirely avoid the use of brass or other expensive materials, by making the rib portion of the strip of sheet iron or steel. A very inexpensive structure thus results, which furthermore affords a convenient means of producing anti-slip floors without altering their general appearance, and without affecting their cleanliness and easy sanitation.

My invention may obviously be carried into practice in a number of different ways, some of which are illustrated in the drawings. For instance, while the supporting or rib member of the strip shown in Fig. 2 may be produced by rolling or drawing, or extruding processes, the rib members of the strips shown in Figs. 3, 4 and 5, may be more inexpensively produced out of sheet metal.

The strip shown in Fig. 3 comprises an anti-slip head portion 17, which is cast or formed or pressed about the upper corrugated edge 18 of the rib member 19, said upper edge forming a core for the body of the head portion. In this case, anchoring or positioning means are obtained by punching and bending outwardly from the rib member, laterally extending ears or lugs 20, which are preferably at a distance from the upper surface of head portion 17 corresponding to the thickness of the finishing layer of the floor for the reasons stated before.

In Fig. 4 I illustrate a similar type of strip in which figure 21 is the anti-strip head portion and 22 is the supporting or rib member therefor, the anchoring and positioning means being obtained from said rib member by longitudinally slitting the material at intervals about midway of its width as shown at 23, 24; and by laterally offsetting a certain portion of the material extending downwardly from each slit, so as to form a cup like laterally extending portion 25, having its outer surface inclined downwardly and inwardly towards the strip from the point of maximum lateral extension.

This method of producing the anchoring and positioning means has the advantage that it does not weaken the section of the rib member and does not impair the rigidity thereof.

In Fig. 5, I illustrate a still different type of strip where the anti-slip head portion 26 is supported by a rib member 27 provided with anchoring means 28 obtained by both offsetting and laterally bending portions punched off the material as shown. This type of anchoring means is in certain respects more effective than those illustrated in Figs. 3 and 4 and can be produced with equal ease.

The head portion 26 of the strip illustrated in Fig. 5 is also different from the ones previously shown in this, that it has a trapezoidal section, its width gradually increasing from the top to the bottom. By virtue of this construction, said head portion remains wedged in position when the finishing layer of the floor is laid, thus improving the stability of the strip.

An anti-slip head of this description, is

illustrated in Fig. 6 where 29 designates the floor foundation, 30 the lower layer or bed of the floor, and 31 the finishing layer. The strip shown is composed of a head portion 32, having a trapezoidal section, and a supporting or rib member 33 therefor, formed with cup like anchoring and positioning means 34 of the type illustrated in Fig. 4.

It will be noticed that the upper edge of said positioning means is level with the upper surface of the lower layer of the floor and acts as a gauge for defining the thickness of the finishing layer.

It is at times desirable to use an anti-slip strip in connection with floors having a limited thickness, such as those used on stairs for instance; and in such cases, it is best not to break the continuity of the plastic material out of which the lower layer of the floor is made, in order to preserve its monolithic nature.

In such cases, I prefer to use a strip formed by an anti-slip body or head 35, provided with spaced supporting members downwardly extending therefrom, such as for instance, nails or pins 36 having their head embedded in the material out of which the anti-slip head is made.

These supporting members are sufficient to bind the strip in position and their action can be assisted in this by making the sides of the head portion at a slant, as shown. A strip of this description is illustrated in position in Fig. 8 where 37 is a floor or stair foundation, 38 is the lower layer or bed of the floor and 39 is the finishing layer. Both layer 38 and layer 39 have a relatively shallow depth and in this case the lower surface 40 of the head of the strip 41 rests directly upon the lower layer, and the height of the head portion 41 defines the thickness of the finishing layer.

It will be understood that although I prefer to make the head portion out of an anti-slip material, as stated, the construction described also lends itself to the production of strips for ordinary purposes; therefore, a head portion made of ordinary cement or similar materials, also enters within the scope of my invention.

From the foregoing it will be seen that my inventive idea may be applied in a number of different ways; the drawings will therefore have to be considered as being intended for illustrative purposes only and not in a limiting sense. I accordingly reserve myself the right to carry my invention into practice in all those ways and manners which may enter, fairly, into the scope of the appended claims.

I claim:

1. A floor strip of the character described, built in unit form, consisting of a preformed structure comprising a relatively narrow metallic rib portion, and a wider head portion made of a different substantially non-compressible material having a relatively high coefficient of friction, mounted on and supported by the upper end of said rib portion, said upper end being embedded within said head portion.

2. A floor strip of the character described, built in unit form, consisting of a preformed structure comprising a relatively narrow metallic rib portion, and a head portion made of a different substantially non-compressible material having a relatively high coefficient of friction, mounted on and supported by the upper end of said rib portion, said head portion having a section larger at the bottom than at the top, said upper end being embedded within said head portion.

3. A floor strip of the character described, built in unit form, comprising a relatively narrow metallic rib portion, a wider head portion made of different material mounted on and supported by the upper end of said rib portion, and anchoring means integral with said rib portion and laterally projecting therefrom, said upper end being embedded within said head portion.

4. A floor strip of the character described, built in unit form, comprising a relatively narrow metallic rib portion, a wider head portion made of material having a relatively high coefficient of friction, mounted on and supported by the upper end of said rib portion, and anchoring means integral with and laterally projecting from said rib portion, said upper end being embedded within said head portion.

5. A floor strip of the character described, built in unit form, comprising a relatively narrow metallic rib portion, a head portion made of material having a relatively high coefficient of friction, mounted on and supported by the upper end of said rib portion, said head portion having a section larger at the bottom than at the top, and anchoring means integral with and laterally projecting from said rib portion, said upper end being embedded within said head portion.

PASQUALE GALASSI.