Sept. 23, 1930. P. GALASSI 1,776,658

EXPANSION STRIP FOR TERRAZZO FLOORS

Filed Dec. 11, 1929

Fig. 1.

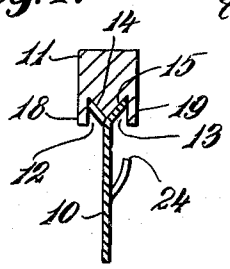


Fig. 2.

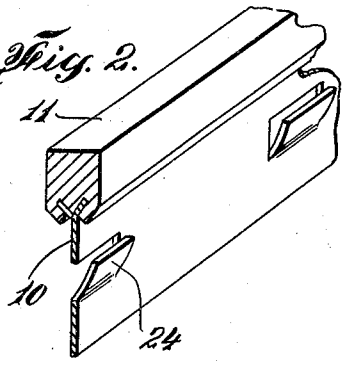


Fig. 3.

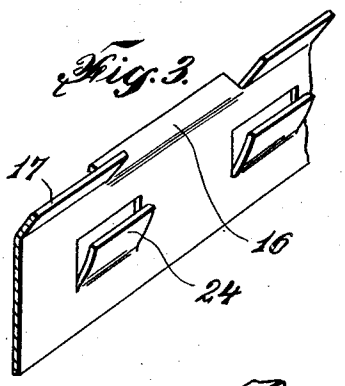


Fig. 4.

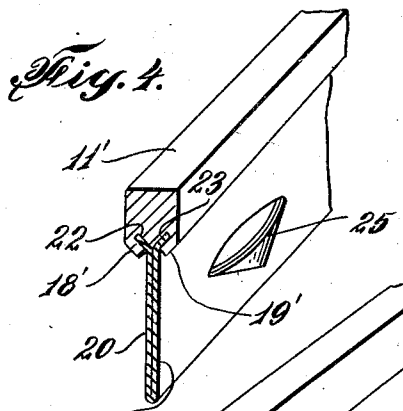
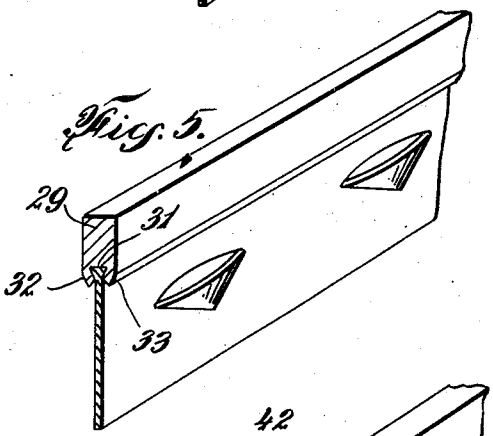


Fig. 5.



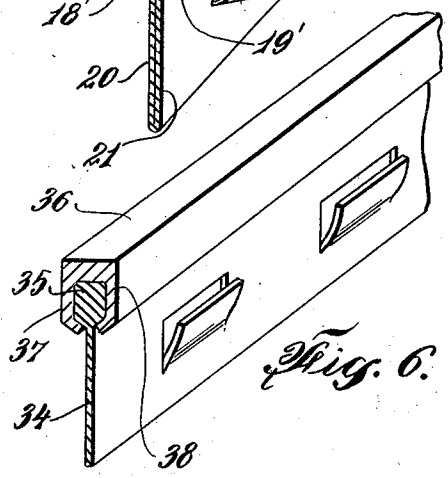


Fig. 6.

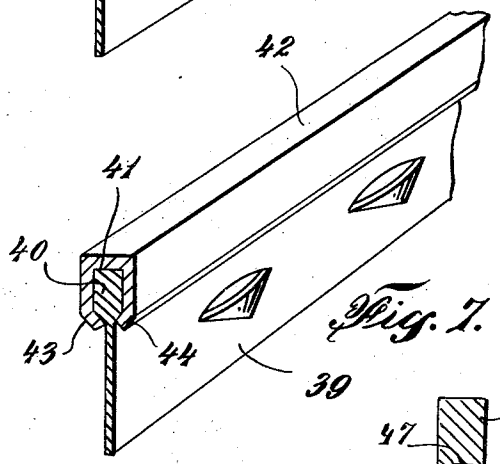


Fig. 7.

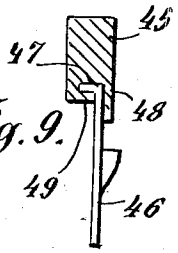


Fig. 9.

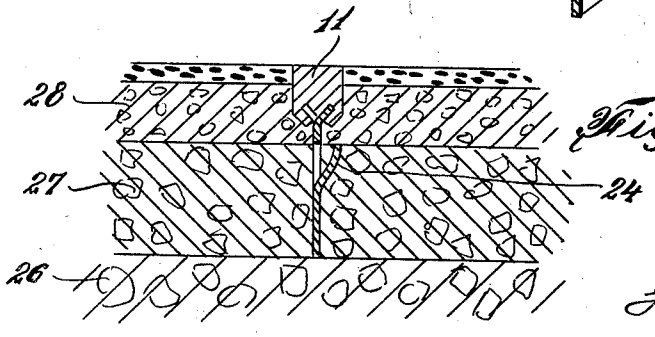


Fig. 8.

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UNITED STATES PATENT OFFICE

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EXPANSION STRIP FOR TERRAZZO FLOORS

Application filed December 11, 1929. Serial No. 413,268.

This invention relates to dividing strips for terrazzo and similar floors and more particularly refers to improvements in dividing strips of the type where two different metals are employed one for the upper sections of the strip and one for the lower section, said sections being joined to each other along their inner edges.

Terrazzo, granolithic, stucco and similar floors usually comprise a lower or foundation bed made of concrete or cement or mortar or other suitable material, and an upper or finishing layer generally consisting of a mixture of marble chips and cement, by means of which a good durable surface may be obtained as well as pleasing designs and color effects of a practically unlimited variety.

The upper layer which is generally placed in position after the foundation layer has been allowed to harden to a sufficient degree of consistency, is generally divided into a number of panels or units in a predetermined arrangement, which are obtained by outlining the desired design by means of dividing strips placed on or through the foundation layer.

These bars are generally made of relatively soft metal such as brass for instance, the wearing qualities of which are approximately equal to those of the floor itself; and according to the nature of the floor and of the design to be produced, the dividing strips may be of various thicknesses and lengths.

Relatively thin strips may readily be obtained out of sheet metal, and are suitable for floors of moderate size; however, relatively large floors, or floors composed of relatively large units, call for strips having sufficient rigidity to withstand the lateral pressure of the material without bulging when the floor is laid.

These heavier strips are also generally made out of sheet metal but brass being an expensive material their use materially increases the cost of the floor. At times the ornamental features are such as to require extra thick metallic strips showing through the material, and in these cases, the cost is still higher.

In order to keep the cost of the product within reasonable limits therefore, it is important to reduce as much as possible the quantity of material used for the portion of the strip which is showing through, this being done without however, impairing the usefulness and strength of the product.

The primary object of this invention is to provide a dividing strip of the character specified, composed of an upper and lower sections, said two sections being joined together in a novel, simple and reliable manner.

Another object is to provide a novel and improved arrangement of bimetallic strip composed of two interlocking sections, which may be produced by readily available methods and means of manufacture, and the production of which may be standardized although upper sections of various widths may be used.

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 are illustrated in the accompanying drawings, in which:

Fig. 1 is a vertical cross section of the two sections composing a strip embodying my invention placed one against the other ready for the joining operation;

Fig. 2 is a fragmentary view in perspective of the resulting strip;

Fig. 3 is a fragmentary view in perspective of the lower section used in connection with the strip shown in Figs. 1 and 2;

Fig. 4 is a fragmentary view in perspective of a strip in which the same type of upper section is employed in connection with a lower section of a different construction;

Figs. 5, 6, and 7 are fragmentary views in perspective of other strips also embodying my invention in different forms;

Fig. 8 is a vertical cross section showing a strip of the type shown in Fig. 2 in position, at the same time illustrating the function of the anchoring and positioning means; and

Fig. 9 is a cross section of another strip embodying my invention in a still different form.

The strip illustrated in Figs. 1, 2, 3 com-

prises a lower section 10 which is made of sheet metal and an upper section 11 which is made of bar stock rolled or drawn to shape.

Said upper section which is substantially rectangular in shape is formed with an M shaped longitudinal groove along its lower surface, comprising two spaced elementary grooves 12, 13, each having a downwardly and inwardly inclined side 14, 15.

The lower section 10 is made out of a strip of sheet metal and is made by first slitting the same downwardly at spaced intervals from its upper edge, a distance sufficient to isolate portions thereof, adapted to form retaining members such as 16, 17 connecting the lower to the upper section.

Said retaining members are obtained by alternately bending to one side and then to the other of the body of the lower section, the portions isolated by the slitting operation mentioned, so as to form two series of longitudinally spaced divergent lips adapted to register with the converging sides 14, 15 of grooves 12, 13.

The M section of the groove provided along the lower surface of section 11, results in the formation of two relatively narrow legs 18, 19 downwardly depending from the sides of section 11, said legs extending beyond the upper edge of lips 16, 17 when said lips are inserted in position against inclined sides 14, 15 as shown in Fig. 1.

By virtue of this construction, in order to securely join the two sections together, it is sufficient to bend inwardly legs 18, 19 causing the same to abut against the outer surface of lips 16, 17 and embracing said lips between said legs and said inclined surfaces. The completed strip shown in Fig. 2 can thus be obtained by means of a simple, reliable and relatively inexpensive operation, by means of which a positive joint is effected.

A similar result can be obtained by using for the lower section a strip of metal bent midway of its width to form two upwardly directed legs 20, 21 as shown in Fig. 4, the upper edges of said legs being bent outwardly as shown at 22, 23 to form a Y structure adapted to interlock with the upper section 11′, which is similar to section 11 and which is connected to the lower section in the manner previously described by bending its legs 18′, 19′ over lips 22, 23.

The lower section is preferably provided with suitable anchoring means such as lugs 24 offset from the body of the strip as shown in Figs. 1, 2, 3, or such as open top cup members 25 shown in Fig. 4, such cup members being struck off the body of the strip and projecting laterally thereof. Anchoring means of different character, of course, can be used if desired, said anchoring means being in all cases, preferably also usable as positioning means adapted to determine the depth of the lower layer of the floor.

This function is illustrated in Fig. 8 where 26 designates the floor foundation, 27 the lower layer or bed of the terrazzo floor and 28 the upper layer. In the same it will be seen that the upper surface of section 11 is flush with the surface of the floor and that the upper edge of lugs 24 registers with the line of division between the lower and the upper layer, thus acting as a gauge in determining the depth of the lower layer.

Instead of using sheet metal for the lower section and forming the same with laterally extending members at the upper edge, the lower section may be made out of metal bars drawn or rolled to shape with a head portion wider than the body portion. An example of this construction is shown in Fig. 5 where the upper section 29 is formed with a longitudinal groove along its lower surface, having an inverted U section and the lower section 30 is formed with a dove tailed head portion 31. It will be observed that the two sections are joined together by inserting the head portion 31 within the groove of section 29 and bending legs 32, 33 depending from section 29 against the sides of dove tailed portion 31 as shown in Fig. 5.

A somewhat similar construction is shown in Fig. 6 where the lower section 34 is formed with a beaded head portion 35 and the upper section 36 is formed with two depending legs 37, 38, the lower edges of which are bent inwardly against the lower surfaces of head portion 35.

In Fig. 7, I illustrate a somewhat similar arrangement in which the lower section 39 is formed with an enlarged head portion 40 having a flat upper surface, and the upper section proper 42 is formed by bending a strip of brass or other suitable metal in an inverted U shape adapted to register with the head portion 40 inserting said bent strip over said head portion 40 and bending inwardly against the lower surfaces of head portion 40 the lower edges 43, 44 of said inverted U section so as to embrace said head portion and form a unit structure therewith.

The strip illustrated in Fig. 9 consists of an upper section 45 and a lower section 46. Like in the previous cases, the upper section is formed with a groove along its lower surface, said groove having an inverted U section. The upper edge of the lower member is bent to form a laterally extending lip or flange 47 the width of which corresponds to the width of the groove. Said flanged upper edge is then inserted within the groove, the vertical surface of said upper edge resting against one of the leg members 48, and the other leg member 49 being bent inwardly and against the lower surface of said lip or flange 47. In this manner the two sections are securely joined together by a relatively simple operation.

From the foregoing, it will be seen that

the joining of the two sections of the strip requires a comparativley simple operation which may be rapidly and cheaply performed. the joints obtained are positive and efficient; furthermore, the strip also affords the possibilities of using two metals for its manufacture, the upper section being made of brass or other metal selected for its wearing qualities and appearance and the lower section being made of steel or other metal selected on the basis of its strength and relatively low cost.

The various constructions illustrated are intended for illustrative purposes only and not in a limiting sense, since obviously their details may vary from those shown without departing from the inventive idea; I accordingly reserve 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, comprising an upper relatively thick member formed with a longitudinal groove along its lower surface, said groove being flanked by two leg members depending from the body of said upper member, and a lower member having part of its upper edge extending laterally of the body thereof, said upper edge being inserted within said groove, and at least one of said leg members being bent inwardly over said laterally extending part of said edge.

2. A floor strip of the character described, comprising an upper relatively thick member formed with a longitudinal groove along its lower surface, said groove being flanked by two leg members depending from the body of said upper member, and a lower member having parts extending laterally of its upper edge at each side thereof, said upper edge being inserted within said groove, and said leg members being bent inwardly over said laterally extending parts.

3. A floor strip of the character described, comprising an upper relatively thick member formed with a longitudinal groove along its lower surface, said groove having an **M** outline and being flanked by two leg members depending from the body of said upper member, and a lower member having parts of its upper edge diverging to register with the two converging surfaces of said groove, said leg members being bent inwardly over said diverging parts.

4. A floor strip of the character described, comprising an upper relatively thick member formed with a longitudinal groove along its lower surface, said groove being flanked by two leg members depending from the body of said upper member, and a lower member having its upper edge slit at spaced intervals to form a series of adjoining lips, part of said lips being bent laterally of said lower member at one side thereof, and part being bent laterally at the other side, said upper edge being inserted within said groove, and said leg members being bent inwardly over said laterally bent lips.

5. A floor strip of the character described, comprising an upper relatively thick member formed with a longitudinal groove along its lower surface, said groove having an **M** outline and being flanked by two leg members depending from the body of said upper member, and a lower member having its upper edge slit at spaced intervals to form a series of adjoining lips, part of said lips being inclined to one side of said lower member, and part being inclined to the other side, to register with the inclined surfaces of said groove, said leg members being bent inwardly over said inclined lips.

6. A floor strip of the character described, comprising an upper relatively thick member having a relatively thin leg member depending therefrom, and a lower member having part of its upper edge extending laterally of the body thereof, said upper edge being placed against the lower surface of said upper member and said leg member being bent inwardly over said laterally extending part of said edge.

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