

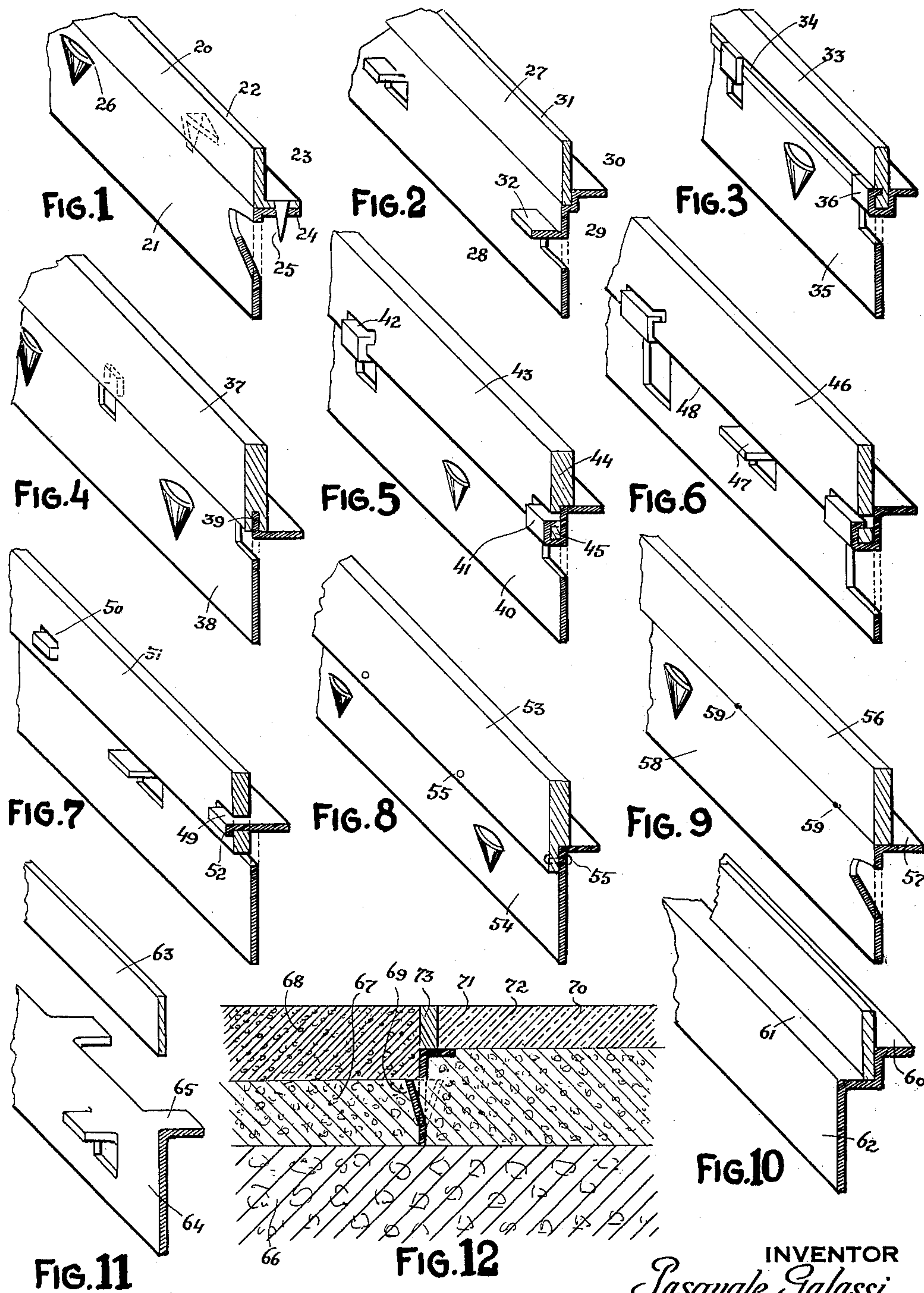
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DOUBLE DUTY FLOOR DIVIDING STRIP

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DOUBLE DUTY FLOOR DIVIDING STRIP

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This invention relates to improvements in the construction of floors comprising adjoining panels of different thickness or height. More particularly the invention refers to improvements in the construction of dividing strips adapted for use in connection with such floors.

In certain types of floors it is desirable to produce combination effects, entailing the use of different materials for different panels. For instance, in some cases it is desirable to provide a terrazzo border and a linoleum center; in some other cases, it may be desirable to provide a checkered design including terrazzo panels and marble slabs interposed therebetween; in other cases again, a combination of terrazzo and wood or tile panels may be used.

In these types of floors the thickness of the materials employed in other than terrazzo panels or units is generally different from the height of the upper layer in said terrazzo panels or units. In order to enhance their appearance, it is desirable to use dividing strips also in such types of floors; their use is also desirable in order to localize cracks in the terrazzo panels or units.

It is, therefore, desirable in such cases to provide strips having anchoring and positioning means at each side thereof, the anchoring and positioning means at one side being adapted for use in connection with the terrazzo panels or units, and the anchoring and positioning means at the other side being especially designed for use with the materials employed for the other units.

When linoleum panels are used in combination with terrazzo or cementitious panels, the edges of the linoleum panels should preferably be supported along their entire length. The dividing strips used, therefore, should preferably be formed with a continuous flange laterally spaced from the body thereof, said flange being vertically spaced from the upper edge of the strip a distance corresponding to the thickness of the linoleum panels.

However, while the provision of a flange extending laterally of a strip throughout its entire length is a very desirable feature, be-

cause the flange serves the two-fold purpose of providing a support for the edge of the laminated material forming the adjoining panel, and increasing the rigidity of the strip, I have found in practice that when the flange is made integral with the upper portion of the strip, the cost of production is rather high because said upper portion is generally made of brass or other metal which is likely to be as or more expensive than brass.

Considerations of economy in cost of manufacture have, therefore, lead to the adoption of dividing strips composed of an upper and a lower section permanently connected to each other along their inner edges in connection with terrazzo floors. The same considerations prevail where combination floors are concerned and furthermore, in the latter case it is also desirable for the lower section to be made integral with a longitudinal continuous laterally extending flange, in order to simplify as much as possible the production of the upper section and in order to reduce to a minimum the amount of material required therefor.

By my present invention I have sought to retain all the advantages pertaining to a bi-metallic strip formed with a continuous longitudinal flange, at the same time simplifying its construction and reducing to a minimum its cost of production.

The primary object of this invention is accordingly to provide a dividing strip for combination floors, said strip being composed of an upper and a lower section permanently connected to each other, the lower section being formed both with a longitudinal continuous flange extending at one side of the upper edge thereof and with positioning means vertically spaced from said flange laterally extending from the body of said lower section at the side opposite the flange.

Another object is to provide a bi-metallic floor strip composed of an upper and a lower section, adapted for use in combination floors of the character specified, said strip being of relatively simple and sturdy construction, entailing for its production the use of a minimum quantity of metal, said

strip being particularly adapted for use in combination floors comprising terrazzo panels or sections and adjoining panels or sections made of laminated material, such as
 5 linoleum, tile and marble, etc.

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.

10 My invention is illustrated by way of example in the accompanying drawing in which:

Fig. 1 is a fragmentary view in perspective of a strip for combination floors, in
 15 which both the upper and the lower section are provided with a laterally extending flange;

Figs. 2 to 9 are fragmentary views in perspective of various bi-metallic strips embodying my invention, in which the lower section is formed with a continuous longitudinal flange, extending laterally of the upper or inner edge thereof, and is furthermore provided with positioning means extending laterally of the body thereof at the
 25 side opposite said flange, the two sections composing the strip being permanently connected along their inner edges by different types of joints;

30 Fig. 10 is a fragmentary view in perspective of an alternative type of bi-metallic strip in which the lower section is formed with a stepped longitudinal flange, extending laterally thereof, said flange having two
 35 vertically spaced longitudinal surfaces, extending one at each side of the line of junction between the lower and upper section;

40 Fig. 11 is an exploded view of an alternative type of strip, formed with a plurality of longitudinally spaced laterally extending lugs in place of the continuous flange shown in the other figures; and

45 Fig. 12 is a fragmentary vertical cross section of a combination floor showing a dividing strip of the type shown in Fig. 9 in position.

The strip illustrated in Fig. 1 comprises an upper section 20 and a lower section 21, permanently connected therewith. The upper section consists of an angle bar having a vertical rib portion formed with an uninterrupted upper edge 22 and a flange 23 extending laterally of the lower edge of said vertical rib portion. The lower section is
 50 formed with a longitudinal continuous laterally extending flange 24 abutting against flange 23 of the upper section, and the two sections are connected together by punching and bending downwardly from the flanges at
 55 longitudinally spaced intervals prongs, such as shown at 25. The lower section is also formed at longitudinally spaced intervals with longitudinally spaced open top cup members 26, struck off the body thereof
 60 and laterally extending therefrom at the

side opposite the flange, the upper edges of said cup members being in longitudinal alignment with one another and being vertically spaced from the upper surface of flange 23. The strip is designed so that
 70 the upper surface of flange 23 is vertically spaced from upper edge 22 a distance equivalent to the thickness of the adjoining linoleum or other panel, while the upper edges of positioning means 26 are at
 75 a distance from said upper edge corresponding to the thickness of the adjoining panels. In the case of terrazzo panels, the vertical distance between upper edge 22 and positioning means 26 corresponds to the thickness of the upper layer of the terrazzo section.

The strip illustrated in Fig. 2 comprises an upper section 27, consisting of a flat bar and a lower section comprising a body portion 28, the upper or inner edge of which is bent laterally and upwardly, as shown at 29 to form a recess within which the lower edge of the upper section may be inserted, and is then bent outwardly to form a longitudinal continuous laterally extending flange 30 vertically spaced from the upper edge 31 of upper section 27 a distance corresponding to the thickness of the material
 90 composing the adjoining panel.

At the side opposite the flange the lower section is furthermore formed with ears or lugs 32, determining the depth of immersion of the strip through the lower layer of a terrazzo or similar section, so that said lugs or ears are vertically spaced from the upper edge of the strip a distance equivalent to the thickness of the upper layer of the terrazzo section.

The same conditions with respect to the flange and positioning means obtain in all the types of strips shown in Figs. 3 to 9, their common characteristic being that in all cases the lower section is formed with a longitudinal continuous laterally extending flange extending at one side of the body thereof and positioning means vertically spaced therefrom extending at the opposite side.

These figures are merely illustrative of the fact that the two sections of the strip can be joined to each other in a number of different ways.

Thus, for instance, in the case of Fig. 2, the two sections are connected to each other by welding or soldering operations along their adjoining edges.

In Fig. 3 the upper section 33 is formed with a longitudinal groove 34 in proximity of its lower edge and the lower section 35 is formed with lugs 36, struck off at spaced intervals from the body thereof and bent upwardly to embrace the lower edge of the upper section and inwardly to enter the groove, the lower edge of the upper section
 120 125 130

overlapping the flanged edge of the lower section.

In Fig. 4 the upper section 37 is formed with a longitudinal groove along its lower surface and the lower section 38 is formed at longitudinally spaced intervals with upwardly extending lugs or tongues 39, forced within said groove with a tight fit.

In Fig. 5 the lower section 40 is provided at spaced intervals with hook shaped lugs, such as 41, having their outer ends bent upwardly and inwardly, their inwardly bent ends penetrating corresponding openings 42, provided in proximity of the lower edge of upper section 43.

In this case, the upper section is shown consisting of a relatively thick bar 44 having a relatively thin rib portion 45, depending therefrom.

The strip shown in Fig. 6 is substantially of the same construction except that the upper section 46 is shown consisting of a flat bar and the positioning means provided in the lower section are shown in the form of longitudinally spaced ears or lugs 47, acting also as additional supports for the lower edge 48 of the upper section.

The same feature is illustrated in Fig. 7, in which, however, the connection between the two sections is obtained by means of lugs such as 49, extending laterally of the lower section and inserted through openings 50, provided in the upper section 51, the lower ends of said lugs being bent downwardly, as shown at 52, to abut against the outer surface of the upper section.

In Fig. 8 I show the upper section 53 connected to the lower section 54 by means of rivets, such as 55.

In Fig. 9 I show the upper section 56 consisting of a flat bar, the lower edge of which rests directly upon the top of longitudinal flange 57 of the lower section 58, the two sections being connected to each other by means of soldering or welding, as shown at 59.

In Fig. 10 I show an alternative type of strip in which the positioning means at the side opposite the laterally extending flange 60 is constituted by a downward step 61 of the same flange, which thus forms a surface vertically spaced from flange 60 and extending at the opposite side with respect to the upper section of the strip. With respect to the body 62 of the lower section, however, both flange sections extend at the same side.

This illustrates the fact that the expression, "the side opposite the flange" used throughout the specification and claims should be understood as applying to the line of division between adjoining panels formed by the upper section.

In Fig. 11 I illustrate an alternative form of strip of which 63 represents the upper

section and 64 represents the lower section, in which the lower section is formed with a plurality of longitudinally spaced laterally extending lugs 65 in place of the flange. This type of construction is not very satisfactory for use in connection with linoleum panels but might be suitable in connection with panels in the form of slabs, such as marble panels, tiles, etc.

Fig. 12 illustrates the use of a strip of the type shown in Fig. 9. In the same 66 designates a floor foundation, 67 is the lower layer of a terrazzo panel and 68 is the upper layer, the open cup member 69 defining the thickness of the upper layer and determining the depth of insertion of the strip within the lower layer. As the side opposite positioning means 69, 70 designates a cementitious lower layer reaching up to the flange 71, and 72 is a linoleum panel resting upon said flange and having its edge protected by the side of the upper section 73.

The constructional details of my improved strip may vary from those shown without departing from the inventive idea; the drawing will therefore be understood as being intended for illustrative purposes only and not in a limiting sense. Accordingly, I 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 a metal strip adapted to be set edgewise between two adjoining floor panels having a different thickness from each other, said strip consisting of an upper and a lower section permanently connected to each other, and being provided with positioning means laterally extending at each side of the line of junction of the lower with the upper section, the positioning means at one side being at a distance from the upper edge of the completed strip, different from that of the positioning means at the other side, to correspond to the thickness of the panels adjoining thereto, after completion of the floor in which said strip is used, both said positioning means being integral with said lower section.

2. A floor strip of the character described, comprising a metal strip adapted to be set edgewise between two adjoining floor panels having a different thickness from each other, said strip consisting of an upper and a lower section permanently connected to each other, said strip having an uninterrupted longitudinal flange extending laterally of the body thereof, and being formed with positioning means extending laterally of the line of junction of the lower with the upper section at the side opposite said flange, said flange and said positioning means being at a distance from the upper edge of the com-

pleted strip, respectively, to correspond to the thickness of the panels adjoining thereto, after completion of the floor in which said strip is used, both said flange and said positioning means being integral with said lower section, said flange extending from the inner edge thereof.

3. A floor strip of the character described, comprising a metal strip adapted to be set edgewise between two adjoining floor panels having a different thickness from each other, said strip consisting of an upper and a lower section permanently connected to each other, said strip having an uninterrupted longitudinal flange extending laterally of the body thereof, and being provided with positioning means laterally extending from the body thereof at the side opposite said flange, said positioning means being vertically spaced from said flange, said flange and said positioning means being at a distance from the upper edge of the completed strip, respectively, to correspond to the thickness of the panels adjoining thereto, after completion of the floor in which said strip is used, both said flange and said positioning means being integral with said lower section, said flange extending from the inner edge thereof.

4. A floor strip of the character described, comprising a metal strip adapted to be set edgewise between two adjoining floor panels having a different thickness from each other, said strip consisting of an upper and a lower section permanently connected to each other, said strip having an uninterrupted longitudinal flange extending laterally of the body thereof, and being provided with positioning means struck off and laterally extending from the body thereof at the side opposite said flange, said positioning means being vertically spaced from said flange, said flange and said positioning means being at a distance from the upper edge of the completed strip, respectively, to correspond to the thickness of the panels adjoining thereto, after completion of the floor in which said strip is used, both said flange and said positioning means being integral with said lower section, said flange extending from the inner edge thereof.

5. A floor strip of the character described, comprising a metal strip adapted to be set edgewise between two adjoining floor panels having a different thickness from each other, said strip consisting of an upper and a lower section permanently connected to each other, said lower section having its inner edge extending laterally thereof, then vertically, then laterally in the same direction, to form an uninterrupted longitudinal stepped flange having two vertically spaced ledges extending one at each side of the line of junction of said lower with said upper

section, said ledges being at a distance from the upper edge of the completed strip, respectively, to correspond to the thickness of the panels adjoining thereto, after completion of the floor in which said strip is used.

6. A floor strip of the character described, comprising a metal strip adapted to be set edgewise between two adjoining floor panels having a different thickness from each other, said strip consisting of an upper and a lower section, said strip having an uninterrupted longitudinal flange extending laterally of the body thereof and being provided with tongues laterally extending from the body thereof at spaced intervals at the side opposite said flange, both said flange and said positioning means being integral with said lower section, said flange extending from the inner edge thereof, part of said tongues acting as positioning means for the floor panels adjoining thereto, and part being bent upwardly and being permanently connected to said upper section.

7. A floor strip of the character described, comprising a metal strip adapted to be set edgewise between two adjoining floor panels having a different thickness from each other, said strip consisting of an upper and a lower section, said strip having an uninterrupted longitudinal flange extending laterally of the body thereof and being provided with tongues laterally extending from the body thereof at spaced intervals at the side opposite said flange, both said flange and said positioning means being integral with said lower section, said flange extending from the inner edge thereof, part of said tongues acting as positioning means for the floor panels adjoining thereto, and part being bent upwardly and laterally to interlock with said upper section, said upper section having openings in proximity of its lower edge, through which the laterally bent outer ends of said tongues can be inserted to form a permanent joint therebetween.

8. A floor strip of the character described, comprising a metal strip adapted to be set edgewise between two adjoining floor panels having a different thickness from each other, said strip consisting of an upper and a lower section, said strip having an uninterrupted longitudinal flange extending laterally of the body thereof, and being provided with positioning means laterally extending from the body thereof at the side opposite said flange, said positioning means being vertically spaced from said flange, said flange and said positioning means being at a distance from the upper edge of the completed strip, respectively, to correspond to the thickness of the panels adjoining thereto, after completion of the floor in which said strip is used, both said flange and said positioning means being integral with said lower

section, said flange extending from the inner
edge thereof, said upper section having its
lower surface resting along the inner edge
of said flange, and being permanently con-
5 nected to said lower section, along said edge.

In testimony whereof I affix my signa-
ture.

PASQUALE GALASSI.

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