June 9, 1931. B. C. ROCKWELL 1,809,393

INLAY FLOOR CONSTRUCTION

Filed May 9, 1929

Fig. 1

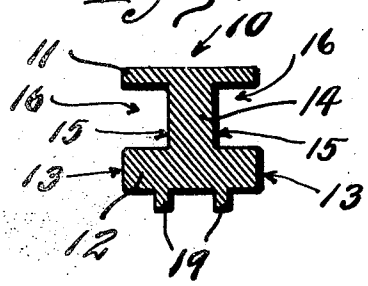


Fig. 2

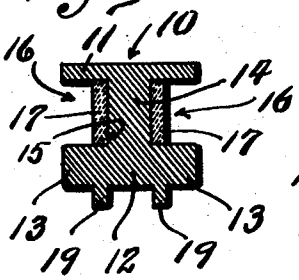


Fig. 3

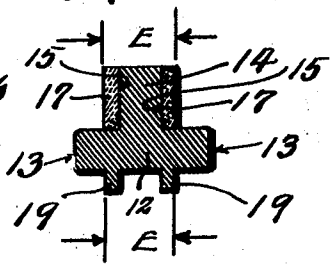


Fig. 4

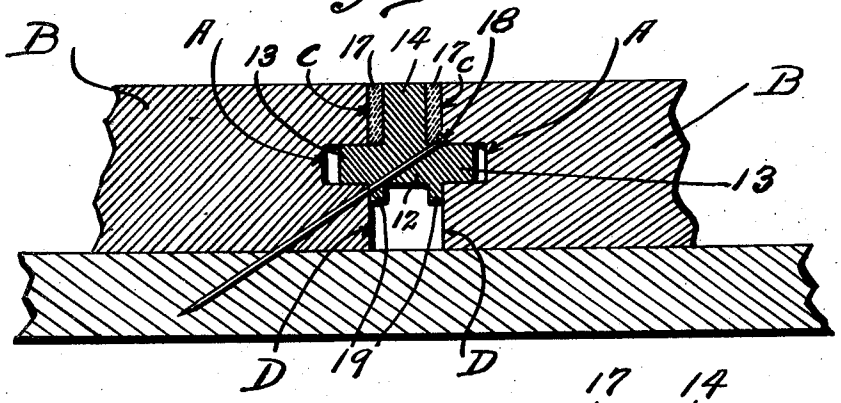


Fig. 6

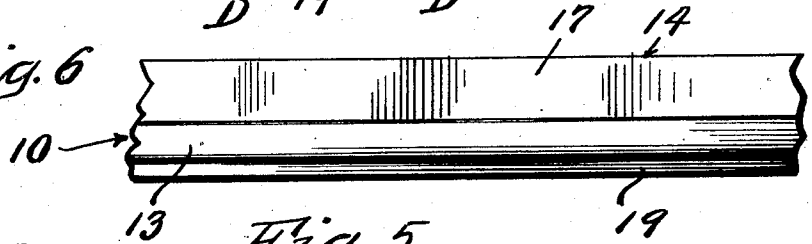
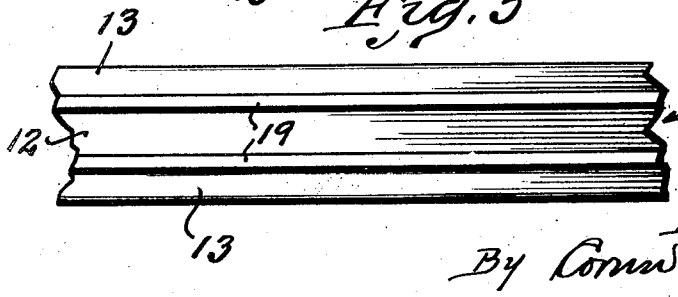


Fig. 5



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1,809,393

UNITED STATES PATENT OFFICE

BYRD C. ROCKWELL, OF CAMDEN, ARKANSAS

INLAY FLOOR CONSTRUCTION

Application filed May 9, 1929. Serial No. 361,769.

This invention relates to new and useful improvements in inlay tongues for block floors and to a novel method of manufacturing such tongues.

The present invention is an improvement upon the inventions disclosed in my copending application Serial No. 359,963, filed May 2, 1929.

In the type of flooring to which this invention relates, an inlay tongue or strip is interposed between the edges of the adjoining floor members to hide the irregularities in the edges of said floor members and preserve the alignment and relationship of said floor members and also, where the tongue is made of contrast material, to accentuate the line of division between the individual floor members, and provide an ornamental floor or marquetry effects.

By forming the sides of the tongue resilient as disclosed in the before mentioned copending application, Serial No. 359,963, the expansion and contraction of the floor members is provided for so that the edges form perfect joints at all times and the floor is not liable to become distorted.

As disclosed in the aforementioned application, the preferable form of construction discloses an inlay tongue having an upwardly disposed longitudinal rib or portion which fits in between the edges of the adjoining floor members, the upper edge of said longitudinal portion being finished flush with the faces of said floor members so as to provide a smooth surface. The sides of this upward portion have secured thereto strips of packing of rubber or other resilient material of suitable thickness and co-extensive with said longitudinal ribs or upward portion. These rubber or packing strips are preferably secured in position by cementing or gluing.

The present invention relates more particularly to a method of securing such packing or resilient strips in position in an efficient and economical manner, thereby enabling the production of the composite inlay tongues on a large commercial scale.

Further objects of the invention are to provide an inlay tongue having means for holding said inlay tongues in proper alignment with the flooring members during the nailing operation.

Other objects of the invention are to provide an inlay tongue having downwardly presented spaced longitudinal ribs which serve to hold the tongue in proper alignment during the nailing operation and which are comparatively thin in cross section so that they will give or break in case of expansion of the floor members, thereby preventing distortion of the floor and preserving a crackless and level floor at all times.

Additional objects of the invention are to provide an inlay tongue, the sides of which are initially formed with longitudinal grooves for receiving and accurately positioning the packing or rubber strips and the upper portion of said inlay tongue being adapted to be removed so as to expose and finish the edge of the upwardly presented intermediate portion of said tongue and the upper edges of said rubber strips.

With these and other objects in view, my invention consists in certain novel features of construction and arrangement of parts, hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a cross section of the inlay tongue before receiving the packing strips.

Figure 2 is a similar view with the packing strips secured in position.

Figure 3 is a cross section of the inlay tongue after the finishing operation with the upper edges of said tongue and said strips exposed and finished flush.

Figure 4 is a cross section of a floor showing the inlay tongue in position.

Figure 5 is a bottom view of my improved inlay tongue.

Figure 6 is a side elevational view of same.

Briefly stated the inlay tongue is originally made H-shape in cross section with the parallel portions disposed horizontally. This provides a pair of oppositely and horizontally disposed grooves which enable quick and accurate positioning of the packing or resilient strips within said grooves against the sides of the intermediate vertical portion. The top parallel portion is then

cut away so as to expose the upper edges of the packing strips and said intermediate portion. The lower horizontal or base portion is formed with a pair of spaced depending ribs which engage the lower half of the edge of the floor member and hold said inlay tongue against rocking or displacement when said inlay tongue is nailed in position.

Referring by numerals to the accompanying drawings, 10 indicates an inlay tongue stock member having a pair of spaced parallel portions 11 and 12 which are horizontally disposed, 11 being the upper or top portion and 12 the lower or base portion. Portion 11 is comparatively thin, while portion 12 is comparatively thick and the edges 13 thereof form the longitudinally disposed tongues which are adapted to be received in the grooves A, of flooring blocks B.

Portions 11 and 12 are connected by a vertically disposed intermediate portion 14 having vertically and oppositely disposed faces 15 which form the bottoms of the oppositely presented horizontal grooves 16.

A packing strip 17 of rubber or other resilient material of the desired thickness is now placed in each groove 16 and cemented or glued to face 15. The height of each strip 17 is substantially the same as the height of the groove so that the packing strip is accurately placed in position and cannot become displaced.

After the cementing or gluing of the strips, the upper portion 11 is removed or cut away either in a planing machine or by means of a saw or in any other suitable manner, thereby exposing the upper edge of portion 14 and the upper edges of strip 17 and finishing all of said edges flush with each other.

The flooring members or blocks B are each formed in each edge with a longitudinal groove A, thereby dividing said edge into two vertically disposed faces, the upper one C of which contacts with the corresponding side of one of the packing strips and the lower end D of which is disposed below the base portion 12.

In the assembly of the floor, each inlay tongue is nailed in position as indicated at 18 and in nailing the tongue in position it is desirable to maintain said tongue in proper alignment with the floor members and prevent the rocking or tilting of said tongue. In order to assure this alignment of the tongue during the nailing operations, the base or lower portion 12 is formed with a pair of spaced depending longitudinal ribs 19 which are comparatively thin. The distance between the outer faces of these ribs is substantially the same as the combined thickness of the packing strips 17 and portion 14 as indicated at E so that in nailing the tongue in position one of the ribs 19 engages the lower vertical face D and prevents tilting or displacement of said tongue.

Thus when the inlay tongue is in place, the faces C of the opposed flooring members B are in surface contact with the packing strips 17 and the lower faces D contact with the outer faces of ribs 19, while the edges 13 of the base portion 12 are disposed in grooves A. The depth of these grooves are greater than the extent of the tongues or ribs 13 so that a suitable clearance is provided therebetween. This assures a perfect joint between the edges of the block members and the vertical faces of the inlay tongue and any expansion of the flooring members is taken care of by the resiliency of the strips 17 and by the comparatively thin construction of ribs 19, which latter are adapted to give and break off, if necessary, rather than impede the expansion of the flooring members.

When the inlay tongue is in position, the upper edges of the vertical portion 14 and of the strip 16 are finished smooth and flush with the faces of the flooring blocks B. The thicknesses of portion 14 and strips 17 can be varied with respect to each other so as to provide the desired ornamental effect.

The provision of longitudinal depending ribs or shoulders 17 assures accurate positioning of the tongue during the nailing operation and at the same time, being comparatively thin, said portions 17 are easily breakable so as not to interfere with the expansion of the floor member.

The grooving, initially, of the stock from which the tongue is to be made, facilitates the insertion and attachment of the rubber strips accurately against the sides of the vertical rib, so that the inlay tongues can be readily manufactured. As all of the operations can be performed by machinery, the cost of manufacture is considerably reduced and the inlay tongues can be turned out economically.

I claim:

1. The method of manufacturing composite inlay tongues consisting in forming a tongue member having the sides provided with longitudinally disposed grooves, securing a resilient strip in the bottom of each groove and cutting away one side of the groove so as to expose the upper edges of said strips and of the intermediate portions to which said strips are secured.

2. The method of manufacturing an inlay tongue consisting in forming a tongue member having a pair of parallel horizontally disposed portions and a vertical portion uniting said parallel portions, securing a strip of resilient material to each side of said vertical portion, and cutting one of said parallel portions and finishing flush the exposed edges of said vertical portion and said strips.

3. The method of manufacturing composite inlay tongues consisting in forming a tongue member having a pair of parallel spaced portions and an intermediate portion disposed at right angles to and uniting said

parallel portions, securing a strip of rubber of suitable thickness against each side of said intermediate portion with the edges of said strip engaging said parallel portions and removing one of said parallel portions so as to expose and finish flush one of the edges of said strips and of said intermediate portion.

4. The method of manufacturing composite inlay tongues consisting in forming a tongue member having a pair of spaced horizontally disposed portions united together by an intermediate vertically disposed portion, one of said horizontal portions being comparatively thin and the other comparatively thick, the edges of said thick portion being adapted to be received in the grooves of the flooring members, forming a pair of spaced ribs on the underside of said thick portion for engaging the lower half of the edge of the flooring member, securing a strip of resilient material against each side of said intermediate portion, said strip being of suitable thickness whereby the outer face thereof is in substantially the same vertical plane with the outer face of the corresponding depending rib, and removing said thin horizontal portion so as to expose and finish flush the upper edges of said strips and of said intermediate portion.

5. The method of manufacturing inlay tongues consisting in forming the stock member H-shaped in cross section, securing a strip of rubber to each side of the intermediate portion of said member with the edges of said strip contacting with the opposed faces of the parallel portions of said member, and cutting away one of said parallel portions and finishing the exposed edge of said strip and said intermediate portion flush with each other.

6. The method of manufacturing inlay tongues consisting in forming the stock member H-shaped in cross section, securing a strip of rubber to each side of the intermediate portion, the parallel portions of said member forming guides in accurately positioning said strips in position, forming longitudinal depending shoulders on the underside of the lower parallel portions, the outer face of said shoulders being in the same vertical planes with the respective faces of said strips, and cutting away the other parallel portion so as to expose and finish flush the upper edge of said intermediate portion and the upper edges of said strips.

7. An inlay tongue comprising a base member having oppositely and horizontally disposed edges adapted to engage the opposed grooves of the adjacent floor members and having an upwardly disposed longitudinal portion formed integral with said base portion and adapted to form surface contact with the upper halves of the edges of said floor members, and a pair of downwardly presented longitudinally disposed shoulders formed integral with said base portion and adapted to be engaged by the lower halves of the edges of said floor members.

8. An inlay tongue for block floors comprising a horizontally disposed base member having oppositely and horizontally disposed edges adapted to engage the opposed grooves of the adjacent floor blocks and having an upwardly disposed longitudinal portion, the sides of which are formed resilient and adapted to form surface contact with the upper halves of the edges of said floor blocks and having a pair of downwardly presented ribs formed integral with said base portion and spaced from each other and adapted to engage the lower halves of the edges of said floor blocks, the outer faces of said ribs being disposed substantially in the same vertical planes with the corresponding faces of said resilient sides.

9. An inlay tongue for block floors comprising a base portion having oppositely and horizontally disposed ribs and an upwardly and vertically disposed rib, a strip of rubber secured to each side of said rib and coextensive therewith, and projections depending from said base portion and spaced laterally from each other, said projections having their outer faces disposed substantially in the same vertical planes with the corresponding faces of said strips whereby said inlay tongue is adapted to have full surface contact with the adjacent flooring members above said lateral ribs and partial surface contact with said blocks below said lateral ribs.

10. As a new article of manufacture, an inlay tongue comprising a body portion having an upwardly presented rib provided with resilient sides, said rib being adapted to be interposed between the upper halves of the edges of the adjacent floor members and having a pair of oppositely and laterally disposed ribs adapted to be inserted in the opposed grooves of said floor members, there being a pair of spaced depending ribs formed on the underside of said body portion and adapted to engage the lower halves of the edges of said floor members, said resilient sides and said depending ribs normally spacing said lateral ribs from the bottoms of said grooves, said depending ribs being comparatively thin so as to break off under the pressure exerted thereagainst by the expansion of said floor blocks.

11. As a new article of manufacture, an inlay tongue comprising a body portion having an upwardly presented vertically disposed rib, a resilient strip secured to each side of said rib and coextensive therewith, said rib and strips being adapted to be interposed and form contact with the upper halves of the edges of the adjacent floor members, means on said body portion for engaging the opposed grooves of the adja-

cent floor members, and a pair of depending ribs formed on the underside of said body portion and adapted to engage the lower halves of the edges of said floor members, the outer faces of said depending ribs being substantially in the same vertical planes with the corresponding faces of said strips.

12. In a block floor, the combination with a pair of floor blocks having their opposed edges grooved longitudinally, of an inlay tongue having horizontally disposed ribs for engaging said grooves and terminating short of the bottoms of said grooves, said tongue having a vertically disposed rib provided with resilient sides for engaging and forming surface contact with the upper halves of the edges of said floor blocks and having a pair of depending longitudinal ribs spaced laterally from each other and adapted to engage the lower halves of said edges of said floor blocks to hold said inlay tongue in proper alignment during the nailing operation.

13. In inlay floor, the combination with a pair of floor members, of an expansion joint tongue comprising a body portion of wood having an upwardly presented rib and a pair of horizontally and laterally disposed ribs extending in opposite directions, and a pair of longitudinal strips of resilient material interposed between the sides of said upwardly presented rib and the corresponding edges of said floor members, the lower end of said body portion terminating short of the bottoms of said floor members.

In testimony whereof I hereunto affix my signature this 6th day of May, 1929.

BYRD C. ROCKWELL.