July 7, 1925. 1,544,733

A. G. FERRARINI

EXPANSION STRIP FOR FLOORS

Filed May 12, 1923

Fig. 1.

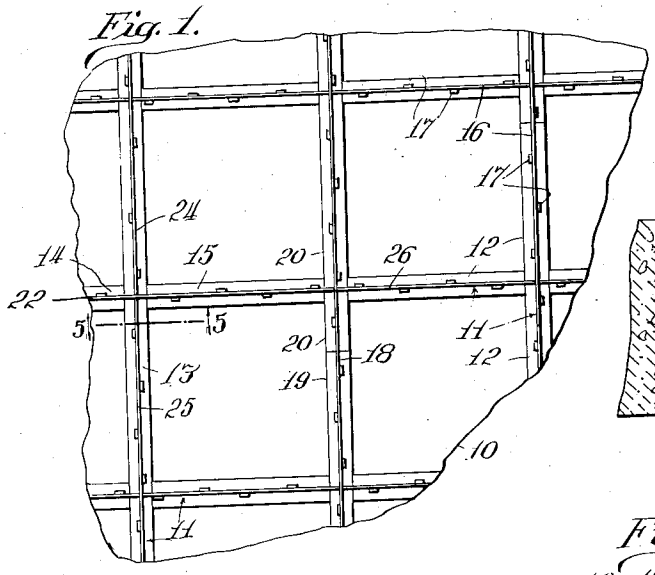


Fig. 2.

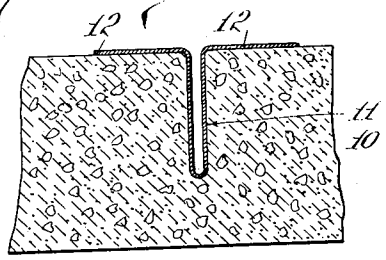


Fig. 3.

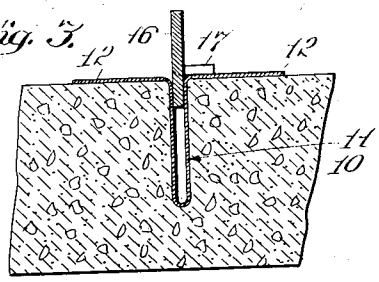


Fig. 4.

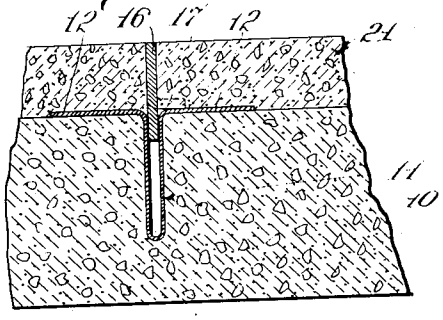
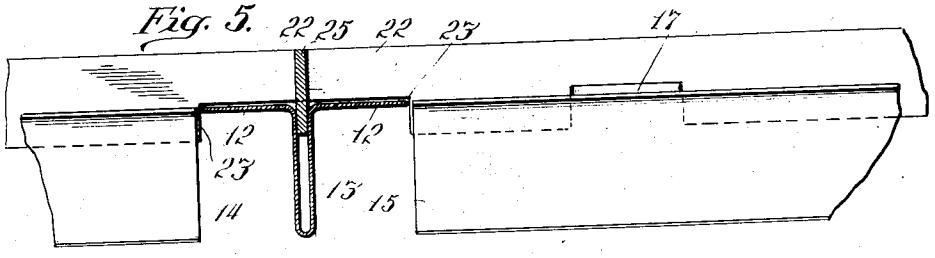


Fig. 5.



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UNITED STATES PATENT OFFICE.

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EXPANSION STRIP FOR FLOORS.

Application filed May 12, 1923. Serial No. 638,437.

To all whom it may concern:

Be it known that I, ANTON G. FERRARINI, a citizen of the United States, residing at Wilmette, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Expansion Strips for Floors, of which the following is a specification.

My invention relates to expansion strips for use in floors of cement or like material for preventing the opening of cracks in the surface of the floor, and it is the principal object of my invention to provide a new and improved form and arrangement of parts by reason of which the strips can be produced readily and cheaply, the laying of the floor comprising the strips can be readily effected with a minimum of delay for the process, and by which an efficient and effective operation may be assured.

The preferred means by which I have accomplished my objects are illustrated in the drawing and are hereinafter specifically described.

That which I believe to be new and desire to cover by Letters Patent is set forth in the claims.

In the drawing—

Fig. 1 is a face view of a fragmentary portion of a floor at an intermediate stage of the process of being laid, and showing my improved devices in position therein.

Fig. 2 is a vertical cross section, showing the bottom layer of the facing portion of the floor laid upon any suitable foundation not shown, and showing the channel member of my improved apparatus in position.

Fig. 3 is a view similar to Fig. 2, but showing the dividing strip in position in the channel member.

Fig. 4 is a view similar to Fig. 3, but showing the completed floor.

Fig. 5 is a vertical cross section on an enlarged scale, through a portion of the system of interlocking strips, being substantially a section taken on line 5—5 of Fig. 1.

Referring to the several figures of the drawing, in which corresponding parts are indicated by the same reference characters, 10 indicates the bottom layer of the facing portion of a floor, such layer being composed of any suitable material such as cement, or such as any of the commercial forms of floor laying material acting substantially the same as cement. The layer 10 is preferably about one and one-half inches thick, being laid upon any suitable foundation as may be desired. When the layer 10 acquires the proper temper or consistency after it is laid, a system of channel members 11 is forced into position in the soft surface of the floor. As it best shown in Fig. 2, each of the channel members 11 comprises two flanges 12 at opposite sides, the channel member being formed preferably from a strip of sheet metal bent into shape. As the parts are shown in Fig. 5, a channel member 13 is provided extending in one direction, with two other channel members 14 and 15 in alignment with each other upon opposite sides of the channel member 13. As is best shown in Fig. 1, the system of expansion strips comprises a plurality of channel members in spaced relation extending in one direction, with a plurality of channel members also in spaced relation extending at right angles to the position of the first set of channel members.

Throughout the full length of the channels of the several channel members, I have provided divider strips, such as strip 16 of Fig. 3. This strip is made of any suitable material, preferably of soft metal, ears 17 being bent laterally from the lower edge portion of the strip for limiting the extent to which the strip is adapted to be inserted into the channel of the channel members 11. As is shown in Fig. 1, the divider strips serve as interlocking means between the ends of the alined channel members. This is illustrated by the divider strip 18, serving as an interlocking means for the channel members 19 and 20.

When the divider strips have been placed in position, and the layer 10 has dried to the desired extent, the finishing layer 21 of the flooring is laid, being of such a thickness as to extend flush with the upper edges of the divider strips.

In the construction shown in Fig. 5, a continuous divider strip 22 acts as an interlocking means for the channel members 14 and 15, located at opposite sides of the channel member 13, the strip 22 being provided with a notch 23 on its lower edge to enable it to pass the channel member

13. Divider strips 24 and 25 are employed in the channel member 13 on opposite sides of the divider strip 22.

An alternative construction is illustrated in Fig. 1 at the intersection of the channel members 15 and 20. At this point, the divider strip 18 extends past the point of intersection, with the divider strips 22 and 26 having their ends in close proximity to the divider strip 18.

The divider strips are designed to be made of a soft metal or other suitable material which will wear down at the same rate as that of the face of the layer 21 of the floor. I have found by the use of a system of expansion strips of this type, that the results are very satisfactory.

I claim:

1. An expansion strip for floors, comprising a channel member and a divider strip adapted to be removably secured in said channel member, in position to extend thereabove, said strip being provided with means projecting from one side face thereof for limiting the extent to which the strip may be inserted into the channel.

2. An expansion strip for floors, comprising a channel member and a divider strip adapted to be removably secured in said channel member, and means on the divider strip for engaging the upper edge of the channel to support the strip so that a large portion thereof remains extending above the channel.

3. An expansion strip for floors, comprising a channel member and a divider strip adapted to be removably secured in such channel member in position to extend thereabove, said strip being provided with ears bent laterally from its lower edge for limiting the extent to which the strip may be inserted into the channel.

4. An expansion strip for floors, comprising a channel member formed of sheet metal adapted to be inserted in the upper face of one of the layers of a floor, and provided with laterally extending flanges for engagement with the upper face of said layer, and a divider strip adapted to be removably secured in said channel member so as to extend thereabove.

5. A system of expansion strips for floors, comprising two channel members adapted to be inserted in the upper face of one of the layers of a floor in alignment with each other, and a divider strip adapted to be removably secured in said channel members in position to extend thereabove and serving to lock said channel members together.

6. A system of expansion strips for floors, comprising a plurality of channel members in spaced relation, a plurality of other channel members, also in spaced relation and at an angle with respect to said first-named channel members, and a plurality of divider strips adapted to be removably secured in said channel members so as to extend thereabove and so as to interlock the adjacent portions of the channel members.

7. A system of expansion strips for floors, comprising a channel member, two other channel members arranged in alignment with each other on opposite sides of the first-named channel member, and a divider strip adapted to be removably secured in said two channel members so as to extend thereabove and so as to interlock the adjacent end portions of said channel members, said divider strip being notched on its lower edge for passing the first-named channel member.

8. A system of expansion strips for floors, comprising a channel member, two other channel members arranged in alignment with each other on opposite sides of the first-named channel member, a divider strip adapted to extend along the channel in one direction past the point of intersection of the channel members, and two divider strips extending along the channel in the opposite direction and having their end portions in close proximity to said first-named divider strip on opposite faces thereof.

ANTON G. FERRARINI.