

Feb. 20, 1940.

C. F. WYSONG

2,190,818

METAL TILING

Filed Jan. 11, 1939

2 Sheets-Sheet 1

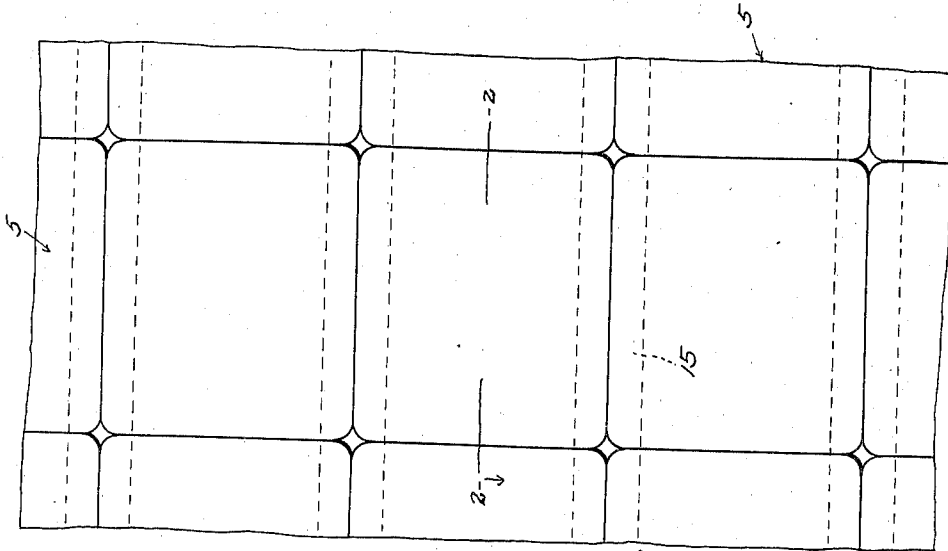


Fig. 1.

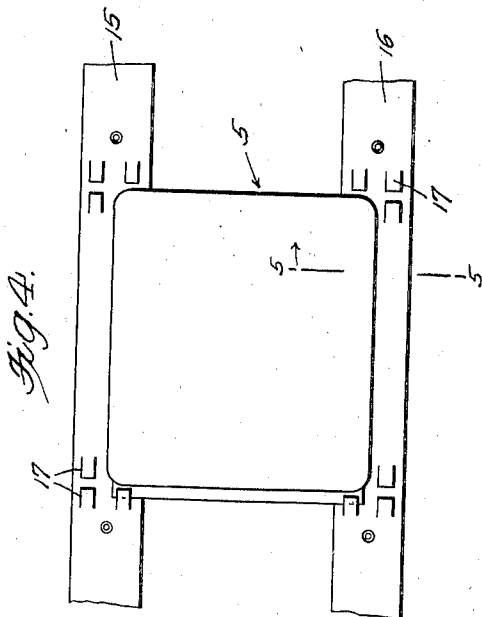


Fig. 4.

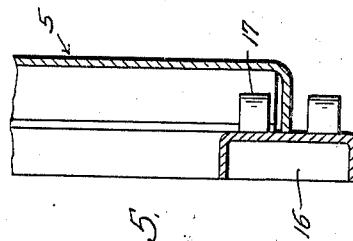


Fig. 5.

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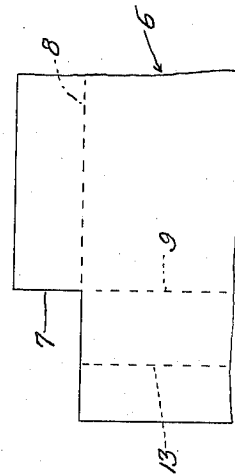
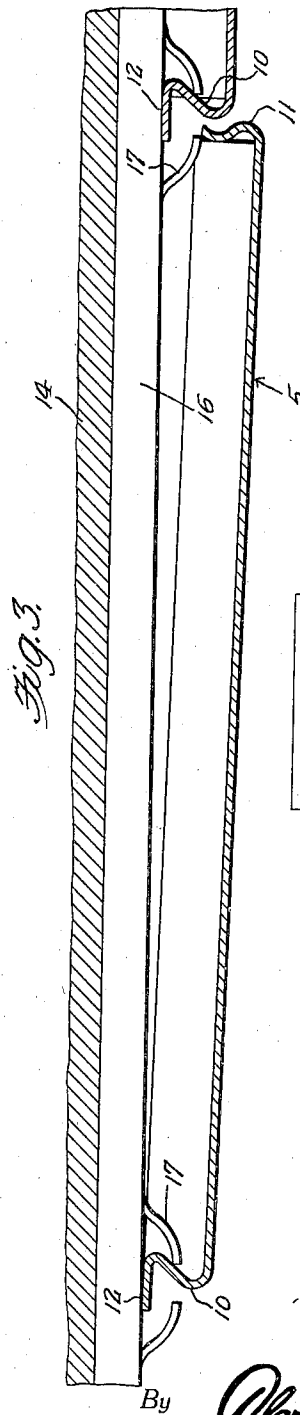
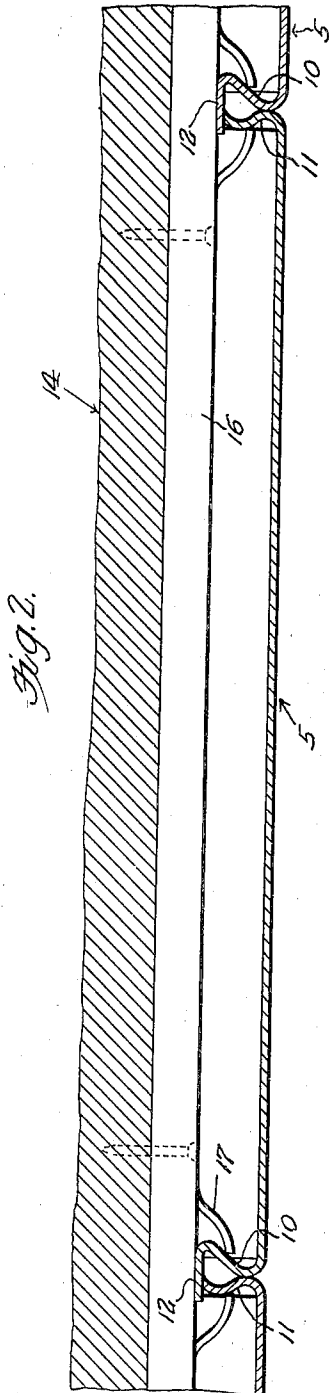
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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METAL TILING

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Application January 11, 1939, Serial No. 250,417

1 Claim. (Cl. 189—86)

My invention relates generally to metal tiling to replace ordinary tiling on walls, and particularly to an arrangement of metal tiles and mounting strips or channels secured to the wall to be tiled, and an important object of my invention is to provide arrangements of the character indicated above in which the individual tiles or pairs thereof can be readily removed and replaced when desirable without working harm to the panel of which they form a part.

Another important object of my invention is to provide metal tiling of the character indicated above in which mounting strips or channels may run either vertically or horizontally, and in which provision is made for facilitating the installation of insulating material to insulate the wall or the like as the tiles are installed.

Other important objects and advantages of my invention will be apparent from a reading of the following description taken in connection with the drawings, wherein for purposes of illustration I have set forth a preferred embodiment of my invention.

In the drawings:

Figure 1 is a fragmentary elevational view of a panel formed of metal tiles in accordance with the present invention and showing in dotted lines an arrangement of horizontal mounting strips or channels.

Figure 2 is an enlarged horizontal sectional view taken through Figure 1 approximately on the line 2—2 and looking downwardly in the direction of the arrow and showing adjacent tiles locked together in relation to a mounting strip or channel.

Figure 3 is a view similar to Figure 2 but showing the side edges of one of the tiles disconnected from or in the act of being assembled with the mounting strip or channel and the edge of an adjacent tile.

Figure 4 is an elevational view showing one of the tiles mounted to and between an adjacent pair of the mounting strips or channels.

Figure 5 is an enlarged transverse vertical sectional view taken through Figure 4 approximately on the line 5—5 and looking toward the right in the direction of the arrows.

Figure 6 is a plan view of a portion of a blank from which the tile is formed.

Referring in detail to the drawings, the numeral 5 generally designates one of the tile which may be made of a non-corrodible or of a corrodible metal covered with any desired protective material such as porcelain enamel, baked enamel, air drying compound or metal plating,

the tile being formed from a generally rectangular blank 6 which has cut out corners 7 and lines 8 and 9 on which the blank is bent to provide the beaded flanges 10 and 11 at opposite sides of the tile, the flange 10 having a return bend 12 which is absent from the flange 11, the return bend being formed on the line 13 shown in Figure 3. The remaining two sides, in the case of the present illustration the top and bottom edges of the tile may be fashioned in any desired form to fit the particular design.

When supporting the tile on the wall or the like 14 there are provided the pairs of strips or channels 15, 16 which are formed at properly spaced intervals with groups of four tabs 17 which are preferably formed by cutting out the web portion of the strip in the case of their being channels as shown, the tabs being arranged in longitudinally aligned pairs with the free ends of the tabs spaced and bent out to arcuate form illustrated in Figures 2 and 3 of the drawings.

To install one of the tile 5 on a companion pair of strips or channels 15, 16, which as earlier stated herein may be arranged vertically or horizontally, the tile is first engaged by placing the flange 10 in relation to a group of the tabs 17 as shown in Figure 3 of the drawings and then by applying a firm pressure to the face of the tile, causing the bead or flange 11 to spring over the tab 17 of the companion set of tabs to assume the position shown in Figure 2 of the drawings. The elasticity of the metal will then spring the flanges back to original shape so as to form a snug fit under the tabs which is sufficiently strong in engagement to hold the tile firmly in place under all ordinary conditions.

With special reference to the interengagement of the plain flanges 11 with the duplex flanges 10, it is shown in Figure 2 that the plain flanges 11 engage the portion 12 of the flanges 10 in such a way that the portion 12 is constituted as a bottom for the joint which makes the wall formed by the tile more impervious, besides forming an interlocking joint, the joint being automatically sealed by the interengagement of the flanges. With this arrangement the insertion of a suitable instrument between the flanges is capable of springing the flanges apart sufficiently to allow disengagement thereof enabling removing the tiles in adjacent pairs. It is obvious that the hollow formation of the tile enable the insertion of insulating material preferably of fibrous or glass wool character to be installed at the time that the tile are installed.

The spaces between the edges of the tile may be grouted with a preferably flexible and compressible material to allow for shifting and expansion of the tile in the settling of the building or wall, and to allow for heat and cold expansion and contraction.

The purpose of straddling one joint with the channel is primarily to obtain a seal for that joint, but also for general economy. In special cases the fingers may be engaged anywhere along the flanges of the tile.

Although I have shown and described herein a preferred embodiment of my invention, it is to be definitely understood that I do not desire to limit the application of the invention thereto, and any change or changes may be made in the materials and in the structure and arrangement of the parts, within the spirit of the invention and the scope of the subjoined claim.

Having described the invention, what is claimed as new is:

Metal tiling of the class described comprising metal tiles each including a major flat portion and free beaded flanges at opposite sides thereof,

the bead of each flange being formed by an outwardly bowed portion which connects the flange with the major part, one flange having an inwardly bowed portion at its free edge to provide an outwardly sloping terminal edge and the other flange having an inwardly sloping portion leading from the bead forming portion and a substantially horizontal portion extending outwardly from the sloping portion and parallel mounting strips each having spaced pairs of spring fingers curving outwardly therefrom, the fingers of each pair curving toward each other and having their free ends facing each other and spaced apart, the flange provided with the horizontal part fitting between the spring fingers of one pair and the flange provided with the inwardly bowed free edge fitting between the fingers of another pair with the last-mentioned flange resting on the horizontal portion of a flange of an adjacent tile with the beads of the adjacent tiles contacting and the spring fingers holding said beads in contacting relation.

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