Feb. 23, 1932. W. M. GOLDSMITH 1,846,194

METAL TILE

Filed Feb. 9, 1926

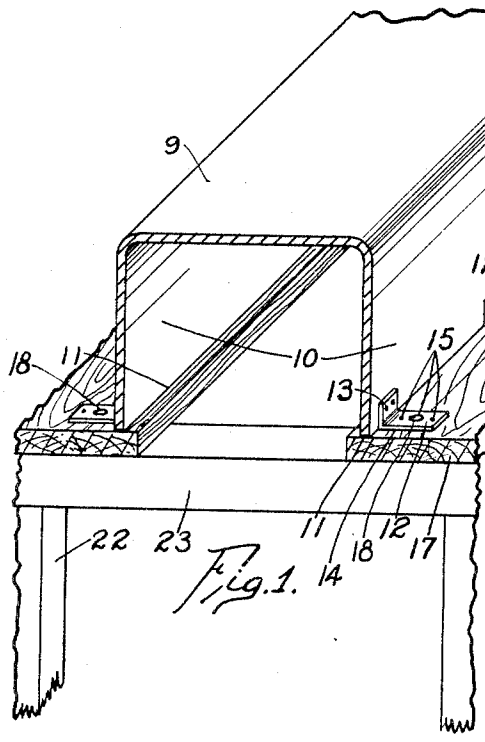


Fig. 1.

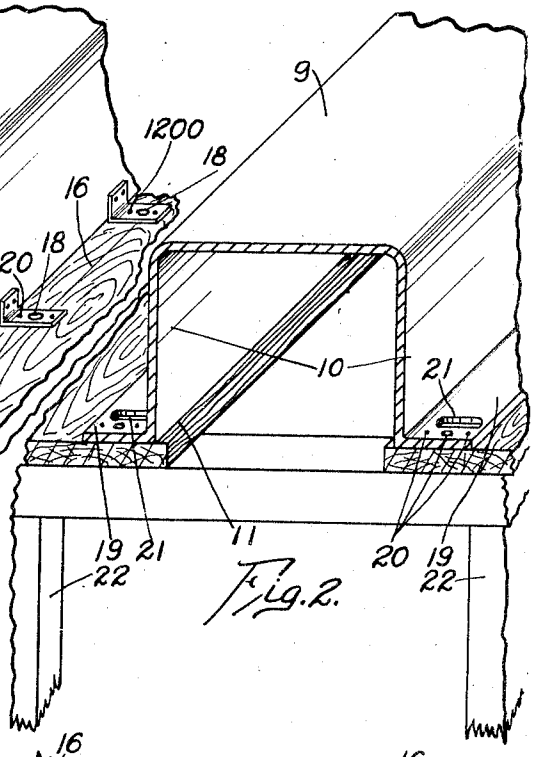


Fig. 2.

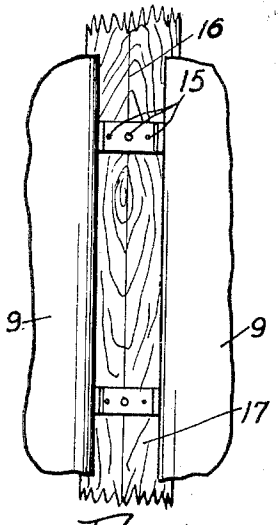


Fig. 4.

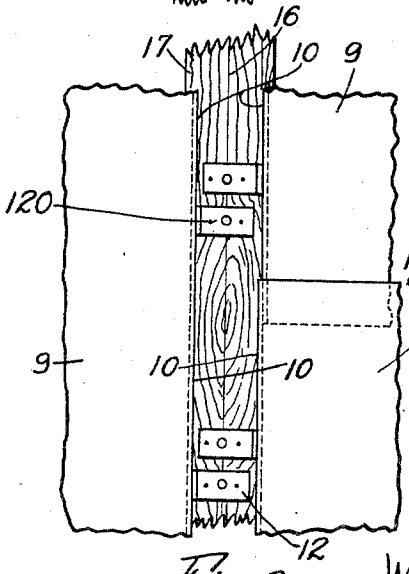


Fig. 3.

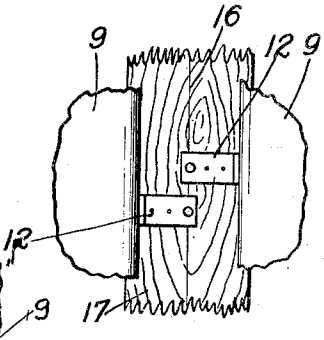


Fig. 5.

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UNITED STATES PATENT OFFICE

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METAL TILE

Application filed February 9, 1926. Serial No. 87,130.

An object of my invention is to provide a metal tile for use in concrete construction by means of which the ordinary workman is enabled to rapidly assemble a flooring structure prior to the pouring of concrete.

Another object is to provide a tile for the purpose stated wherein the alignment of tiles is facilitated thereby insuring straight line beams with a minimum of effort and skill.

Another object is to provide a tile of the class described which carries means for insuring accurate spacing of adjacent tiles for insuring uniform concrete beams.

Another object is to provide a tile of this kind which requires the use of a single guide line for mounting the tiles to provide beams of any one of a number of commonly used beam widths.

Another object is to provide a tile of the class described which eliminates the necessity for much of the measuring and laying out usually required in mounting metal tiles.

These and other objects are attained by the means described herein and disclosed in the accompanying drawings, in which:

Fig. 1 is a perspective view of a tile of my invention mounted in an operative position upon a support structure.

Fig. 2 is a similar view showing a modified form of the tile of my invention.

Fig. 3 is a fragmental plan view showing the method of mounting the tile of my invention to provide a comparatively narrow beam.

Fig. 4 is a similar view showing another method of positioning the tile of my invention.

Fig. 5 is a similar view showing the method of mounting the tile of my invention for providing a beam of maximum width.

In the preferred form of my invention, as shown in Fig. 1, the metal tile 9 has side walls 10 and straight longitudinal edges 11. Each tile is provided with a plurality of mounting flanges 12 which take the form of flexible metallic angles, spot welded or otherwise secured as at 13 and in spaced relation along the outer sides of the walls 10 at the longitudinal edge 11 thereof. The bottom side 14 of the mounting flanges or lugs is normally disposed in a plane with the longitudinal edges 11 of the tile. Each of the mounting flanges has a series of spaced perforations 15 aligned at right angles to the side wall 10 of the tile. These perforations are die punched and therefore accurately spaced so that when given ones of the perforations in a series of lugs on a tile are brought into registry with a given line, the edge 11 of the tile will assume a position in parallelism with said line. The width of the flange 12 is such as to facilitate registry of a given perforation 15 with a guide line such as 16, after which a nail or the like may be driven through the perforation to secure the flange in its adjusted position. For example, as shown in Fig. 1, the centermost perforation of the flanges 12, 120 and 1200 are brought into registry with a guide line 16 on soffit 17, and nails 18 have been driven through said perforations. Inasmuch as the perforations are each disposed at a predetermined distance from the side 10 of the tile, it follows that the side of the tile will be parallel with the guide line. It will be readily apparent therefore, as shown in Fig. 3 for example, that if the perforations 15 be spaced at one, two and three inches, respectively, from the side 10 of the tile, adjacent tiles supported upon the soffits 17 with the centermost perforation of each of the flanges or mounting lugs 12, 120 and 1200 on each of said tiles registering with a single guide line, would automatically position the sides 10 of adjacent tiles parallel to each other with a uniform four inch space between them. As shown in Fig. 4, a similar beam would be provided by aligning the centermost perforation of overlapping mounting lugs with a guide line 16. Using the same method and employing the outermost perforation in the mounting lugs on each of adjacent tiles, a six inch beam would be provided. It will be apparent therefore that it is readily possible within the scope of this invention, to provide flanges which extend at various distances from the sides of the tile and to provide such flanges with any combination of accurately spaced perforations 15.

In the modified form of my device shown in Fig. 2, the tile 9 has its side walls 10 provided

with integral flanges 19 having die punched and accurately spaced perforations 20 through which nails may be driven, and adjacent each series of perforations 20 is an elongated sighting aperture 21 through which a guide line such as 16 may be viewed in order to register one of the perforations 20 with the guide line thereby making it easy to position these tiles for producing accurate beams. The modified form shown in Fig. 2 adapts itself readily to extremely large tiles and very wide beams.

When a floor has been poured over the form structure, as shown in Fig. 1, and the shoring 22 and cross members 23 have been removed, the sleepers 17 may be torn down and they will pull the flanges 12 which are nailed thereto, downwardly with them because said flanges are of comparatively light flexible material. The flanges 12 may then be grasped for facilitating the removal of the tiles. The tiles of my invention being readily removable may be used repeatedly and are nestable so that they may be conveniently packed and stored when not in use.

What I claim is:

1. As a new article of manufacture a metal tile comprising side walls, flanged mounting means carried by the side walls and having perforations therethrough spaced at predetermined different distances from the side walls, the mounting means being provided with sighting spaces adjacent the perforations to facilitate positioning the tiles with given perforations in registry with a guide line.

2. As a new article of manufacture a sheet metal tile comprising a body and arms of substantially inverted U cross section, and having outwardly extending flanges at the ends of the arms, the flanges having openings therein for receiving fastening means and being provided with additional openings between the first mentioned openings for facilitating alignment of said first mentioned openings formed in any one flange, preparatory to insertion of fastening means into said first mentioned openings.

3. As a new article of manufacture a sheet metal tile comprising an inverted U-shaped body, outwardly extending flanges on the body having openings therein for receiving fastening means and further provided with additional openings between the first mentioned openings for facilitating alignment of said first mentioned openings in said flanges.

4. As a new article of manufacture, a tile of inverted U-shape form and comprising side walls, each having a longitudinally extending edge, and means along the longitudinally extending edges for receiving fastening means and for gaging said edges and the fastening means.

5. As a new article of manufacture, a tile of inverted U-shape form and comprising side walls, an outwardly extending flange along each of said side walls, said flanges having fastener receiving openings for receiving fastening means, said tiles being further provided with sighting openings between the fastener receiving openings.

In testimony whereof, I have hereunto subscribed my name this 5th day of February, 1926.

WILLIAM M. GOLDSMITH.