

June 9, 1936.

A. C. MYERS

2,043,706

TILING

Filed Jan. 25, 1933

2 Sheets-Sheet 1

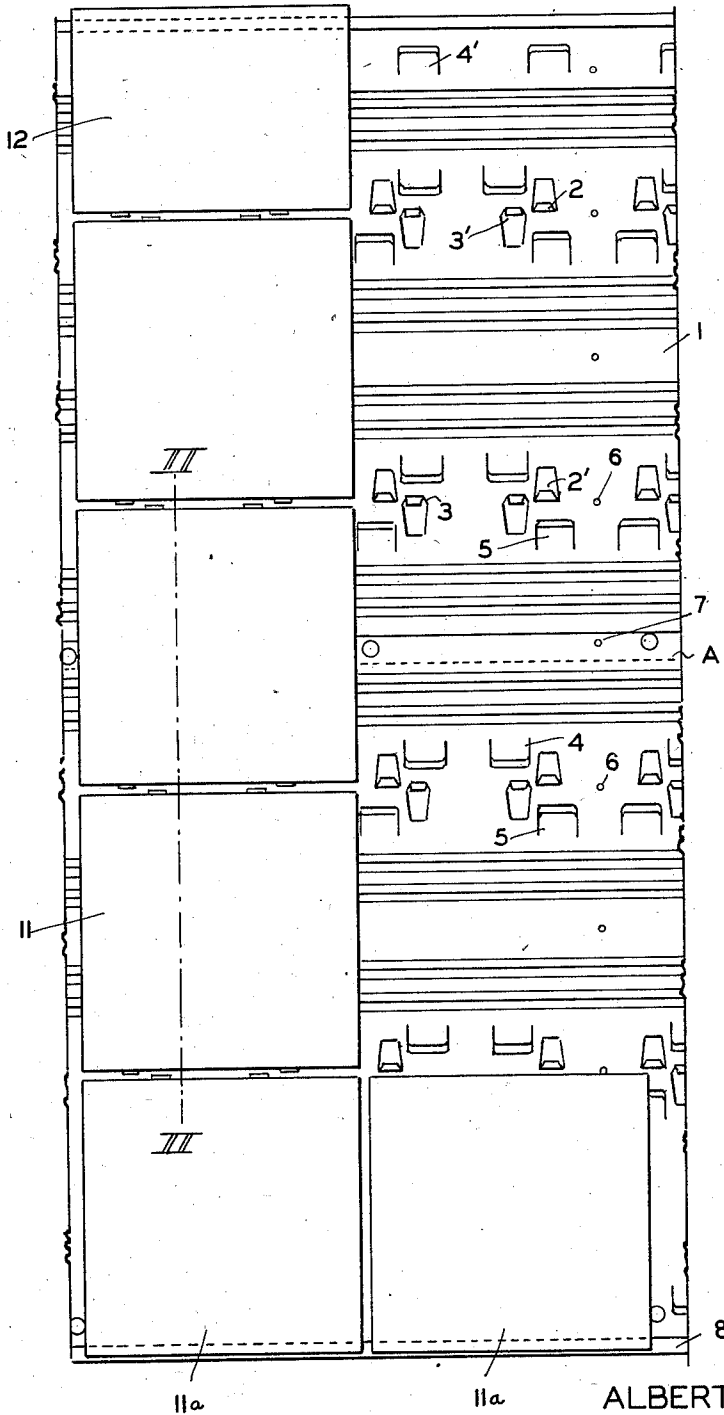
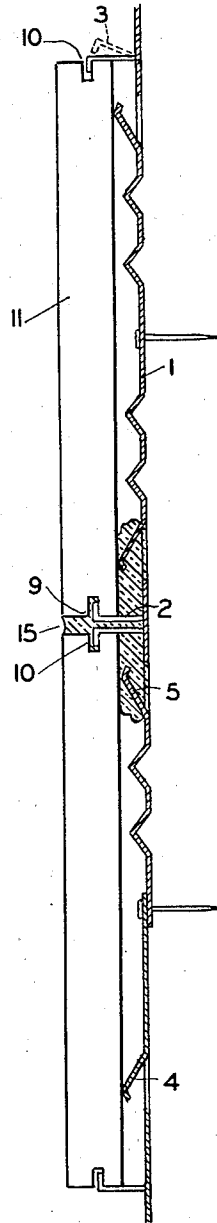


FIG. 1.

FIG. 2.



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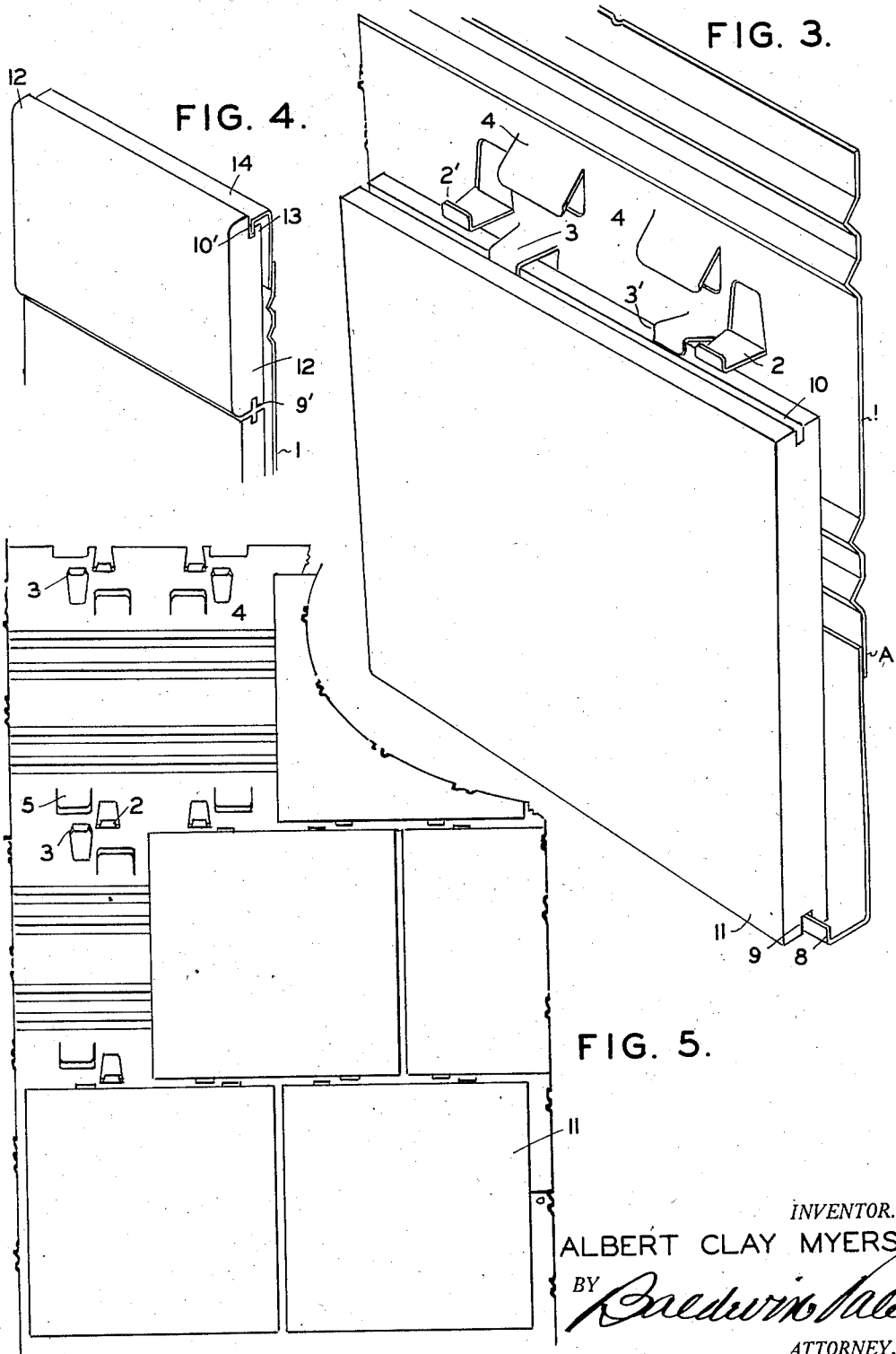
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2 Sheets-Sheet 2



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2,043,706

TILING

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4 Claims. (Cl. 72-20)

This invention relates to improvements in tiling and more particularly to methods and means for setting tile and other facings.

The principal object of the invention is to reduce the ultimate cost of tile facings by lowering the expense of installation.

Another object is to obviate the necessity for expert labor and to reduce the time required for tile setting.

Another object is to simplify the setting of tile on old walls without removing their original surface as required in the prior practice of renovation.

Another object is to provide a resilient mounting for the tile to bring their faces automatically into a uniform plane.

Another object is to simplify the setting of the tile units in perfect alignment with each other.

Another object is to arrange the mounting so that it is entirely concealed by the tiling when the operation is completed.

Another object is to provide a mounting requiring but a slight modification of the conventional tile for use therein.

Other objects and advantages appear as the description progresses.

In this specification and the accompanying drawings, the invention is disclosed in its preferred form. It is, however, to be understood that the invention is not limited to this form because it may be embodied in other forms without departing from the spirit of the invention as defined in the claims following the description.

In the two sheets of drawings:

Fig. 1 is a front elevation of a tile mounting constructed in accordance with this invention showing some of the tiles installed.

Fig. 2 is an enlarged vertical section taken along the line II-II in Fig. 1 and showing one of the tile joints grouted.

Fig. 3 is a fragmentary detail view in perspective of a tile installed in the present apparatus, showing one of the top clips before it is bent into operative position.

Fig. 4 is a perspective view drawn to reduced scale of a cap tile mounted in accordance with this invention.

Fig. 5 is a front elevation similar to Fig. 1, showing the manner of setting the tiles in broken joint formation in the present mounting.

In detail, the construction illustrated in the drawings, referring more particularly to Figs. 1 and 2, comprises the mounting 1, consisting of light gauge sheet metal having the clips 2-2 and

3-3 struck outward therefrom. The ends of the clips are each bent at right angles to the bodies of the clips at a predetermined uniform distance from the plane of the mounting to form the hooks 2'-3' respectively.

These clips are arranged in horizontal rows interspaced the height of the tile and have their respective bent ends disposed alternately upward and downward toward the edges of the superimposed tiles. The adjoining sets of clips 2-2 and 3-3 in the lateral series are struck alternately upward and downward to each other to avoid weakening the plate 1 at these points. The top clips 3-3 are normally inclined away from the edge of the tile, see dotted lines in Fig. 2, to permit its insertion as later described.

The lugs 4-4 and 5-5 are struck from the body of the plate 1 adjacent the clips 2-2 and 3-3 and are arranged to resiliently engage the back of the tiles near the corners thereof. These lugs are disposed toward the open tile joints formed by the clips so that their free ends resiliently engage the tiles near the upper and lower edges.

The mounting 1 is die stamped in sheets of suitable size to form the structure described. These sheets can be applied to practically any reasonably flat surface as a backing for tile facings. In prior methods, the surface on which the tile was set was required to be of a material suitable for the adhesion of the cement setting of the tiles. In house reconstruction work, this necessitated the removal of wall plaster, wainscoting, etc., to expose the laths or other wall foundation suitable for tiling. These disadvantages and inconveniences are entirely obviated by the present invention which can be readily attached to any material to which the plates 1 can be attached.

The plates 1 are nailed to the wall through the vertically aligned nail holes 6 punched at intervals intermediate the series of clips 2-2, 3-3. The holes 6 are arranged to prevent the nailed backing from bulging outward at the tile joints, thus maintaining the clips properly aligned in a uniform plane.

A similar series of nail holes 7 is provided on the horizontal centerlines intermediate the rows of clips, as shown in Fig. 1. The adjoining sheets of backing are overlapped horizontally as at A to bring the holes 7-7 into registry and the overlapping ends are then nailed to the wall. The registry of the corresponding holes 7-7 in the two sheets brings the series of clips 2, 3 on each

sheet into accurate vertical and horizontal spacing and alignment.

The present invention can be used to mount any of the usual architectural veneers such as tile, facing brick, etc. In the drawings, the invention is used in conjunction with the conventional clay facing tile. The type of tile produced by the machine disclosed in my application No. 464,839 filed June 30, 1930 is most satisfactory for the purpose because of the uniformity of tile size, but this is not essential. To adapt the facing material to the present mounting means, the grooves 9 and 10 are longitudinally milled or ground in the upper and lower edges respectively of each tile 11, to receive the hook ends 2'-3' of the clips. It is preferable to cut these grooves with an abrasive wheel after the tiles have been fully fired, to avoid crumbling their edges.

The tiles are installed in the following manner: The tiles 11a of the lowermost course are individually placed by the setter with their lower grooves 9 engaging over the upturned flange 8. The tiles are then swung inward toward the wall, past the hook ends 3'-3' of the clips 3-3 which are then manually bent downward so that their hook ends engage the grooves 10. The lugs 4-4 and 5-5 flex against the back of the tile and urge it outward to seat the clip ends 2' and 3' firmly against the sides of the grooves 9 and 10. The succeeding courses of tile are placed with their lower grooves 9 engaging the hook clips 2-2 and the clips 3-3 are bent, as above described, to engage the upper grooves 10.

In Fig. 4, the tiles are shown mounted in broken joint formation. This is rendered possible by arranging the clips to engage each tile at substantially one-fourth of its width from the ends. This permits the tiles to be mounted in staggered relation to each other with the clips engaging approximately the same portion of the tiles in either of the two positions. The spring lugs 4 and 5, being arranged in proximity to the clips, similarly engage the proper portions of the tiles irrespective of the tile pattern.

It is important that the grooves 9 and 10 be spaced a predetermined uniform distance from the face of each of the several tile. The bent over ends 2' and 3' of each of the clips are also spaced a fixed uniform distance from the face of the mounting plate. Thus the spring lugs 4-4 and 5-5 in seating the sides of the grooves against the clips also align the faces of all of the tiles in substantially the same plane. The automatic leveling of the tiling thus obtained compares favorably with the work of expert labor under prior mortar set methods.

In many installations, it is desirable to provide ornamental cap tiles as illustrated in Fig. 1 and 4 to complete the top of the tile panel. The cap tile shown in Fig. 4 is suitable for use in the present mounting. These cap tiles 12 are thicker than the preceding course and ornamentally finished at the top and bottom edges to create the desired effect.

The groove 9' is provided in the lower edge of the tile 12 to engage the clips 2 in the manner above described. The upper groove 10' is ground in the shoulder 13 formed on the top edge of

the tile and is arranged to be engaged by the overhanging flange 14 at the upper end of the mounting plate. The channel formed by the offset shoulder 13 overlies the wall plaster and conceals the joint. The spring lugs 4' expand against the backs of the cap tiles to firmly hold them in the mounting.

When the tiles are all installed on the mounting plates, the joints therebetween may be grouted in the usual manner by forcing plastic cement into the joints, as at 15 (Fig. 2) and smoothing it off level with the face of the tile. The cement should be forced in far enough to penetrate between the backs of the tiles and the mounting 1 for a short distance from the tile edges to permanently fix the lugs 4-5 and rigidly space the tile from the mounting 1. This prevents the flexing of the lugs 4 and 5, should a heavy pressure be applied to the face of the tiles. A convenient means for grouting the tile joints is to load a piston type "gun" with the grout and force it through a nozzle applied at the meeting corners of the tiles and at intervals along the joints. The surplus grout is removed by "pointing" the joints or wiping it away in the usual manner. The grooves 9 and 10 key the grout filling and insure its permanence.

When the grouting is completed, the clips are concealed by the grout in the tile joint. Tiling set in accordance with this invention is thus indistinguishable in outward appearance from that set in the conventional manner.

Having thus described this invention, what is claimed and desired to be secured by Letters Patent is:

1. A mounting for facing tile having longitudinally disposed grooves in their edges spaced a predetermined distance from their faces, comprising a mounting plate, clips on said plate having their ends angularly bent thereto at a predetermined distance from said plate and adapted to engage in the grooves in said tile, and relatively narrow resilient lugs struck outward from the body of said plate and adapted to urge said tile against said ends.

2. A mounting for facing tile including a member having hooks thereon adapted to rigidly engage over edges on said tile and resilient means interposed between said member and said tile and adapted to urge said tile outward against said hooks.

3. A mounting for facing tile having grooves in their edges including a sheet metal plate; bendable clips on said plate having rigid bent ends adapted to engage said grooves; and relatively narrow resilient means on said sheet adapted to urge said tile outwardly against said ends.

4. A mounting for facing tile having grooves in their edges including a sheet metal plate; rows of aligned bendable clips on said plate inclined away from the spaces therebetween arranged to be occupied by tile and having rigid bent ends adapted to engage said grooves when said clips are bent toward the tile; and resilient means on said sheet adapted to urge said tile outwardly against said ends.

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