Sept. 8, 1936. A. ROSSI 2,053,843

TILE CONSTRUCTION

Filed March 23, 1936 4 Sheets-Sheet 1

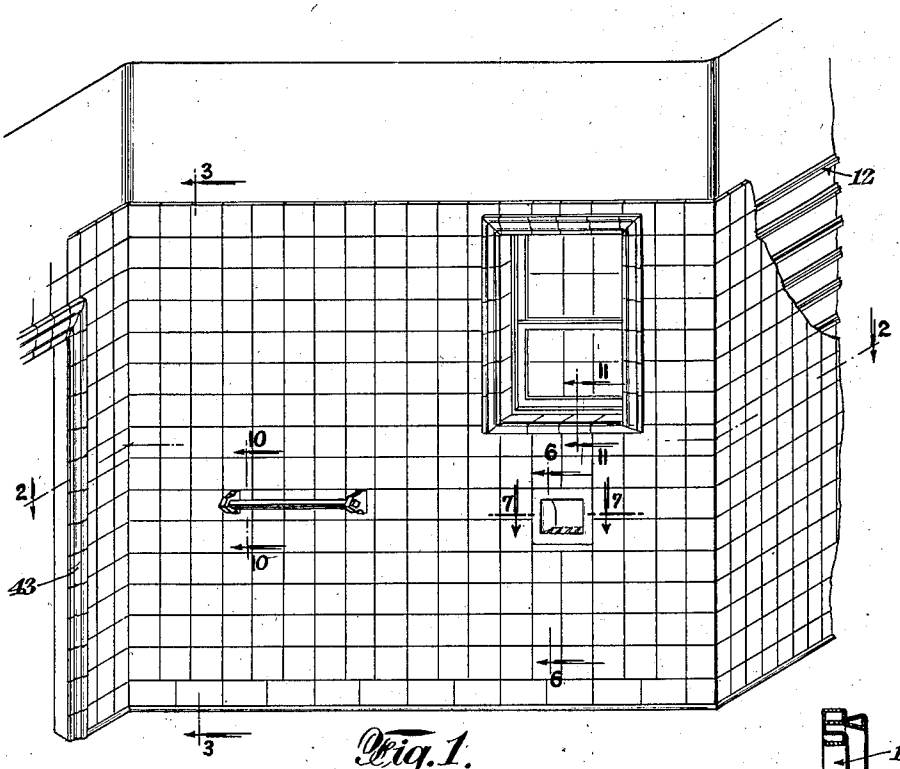


Fig. 1.

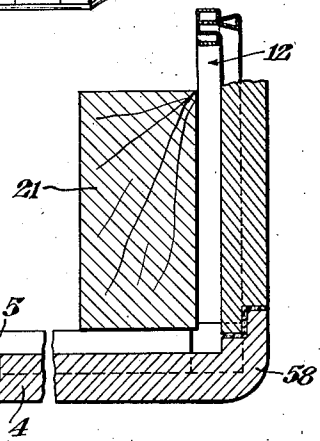


Fig. 2.

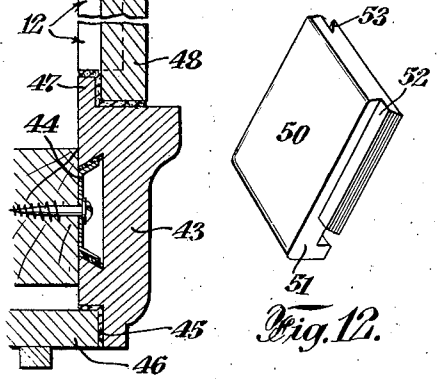
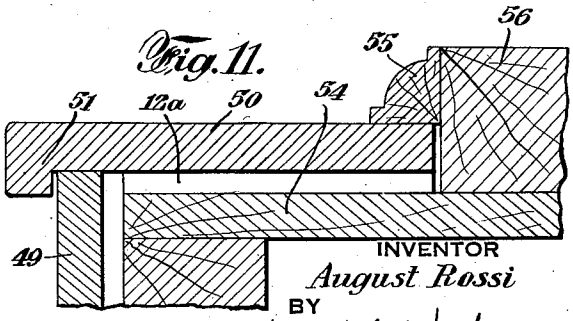


Fig. 12.

Fig. 11.



INVENTOR
August Rossi
BY
Wood, Cooley & Wood
ATTORNEYS

Sept. 8, 1936. A. ROSSI 2,053,843

TILE CONSTRUCTION

Filed March 23, 1936 4 Sheets-Sheet 2

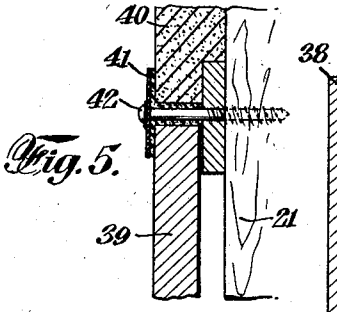


Fig. 5.

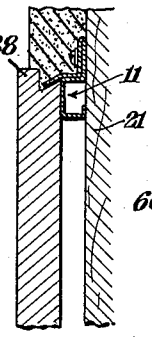


Fig. 4.

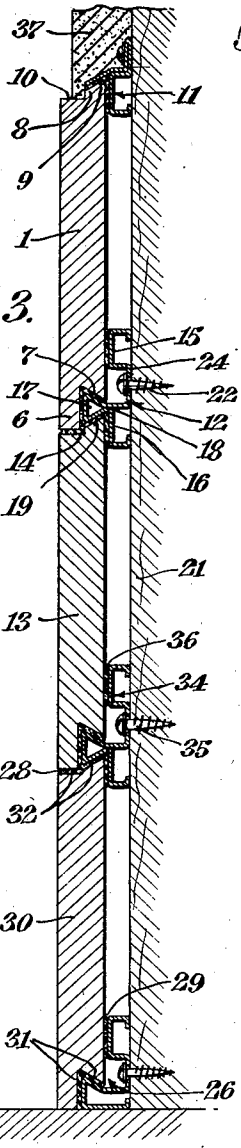


Fig. 3.

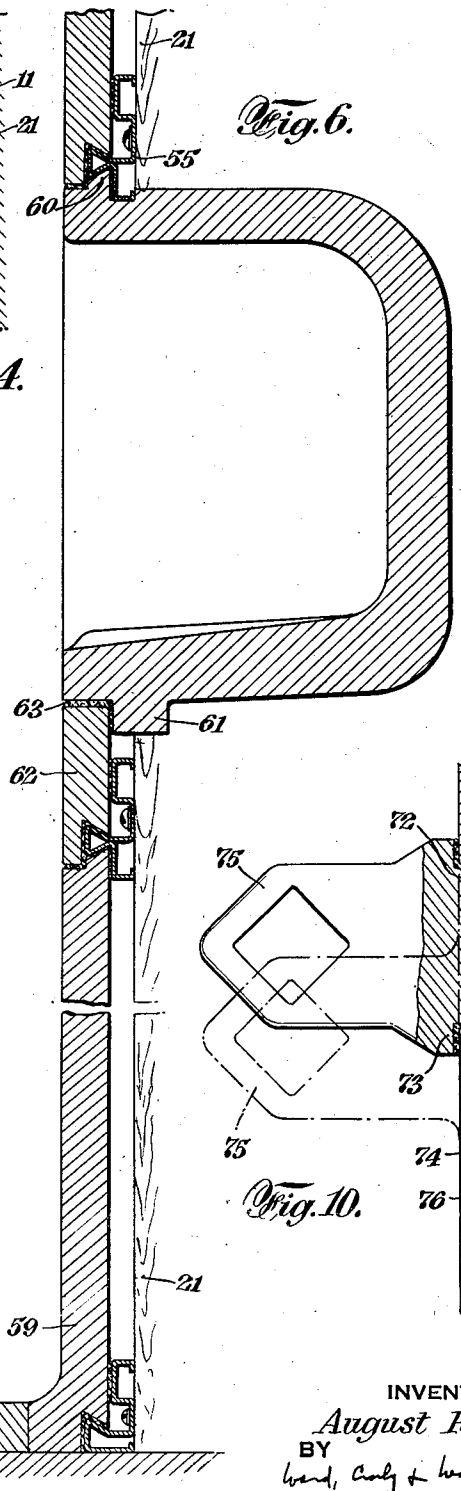


Fig. 6.

Fig. 10.

INVENTOR
August Rossi
BY
Ward, Cady & Ward
ATTORNEYS

Sept. 8, 1936. A. ROSSI 2,053,843

TILE CONSTRUCTION

Filed March 23, 1936 4 Sheets-Sheet 3

Fig. 7.

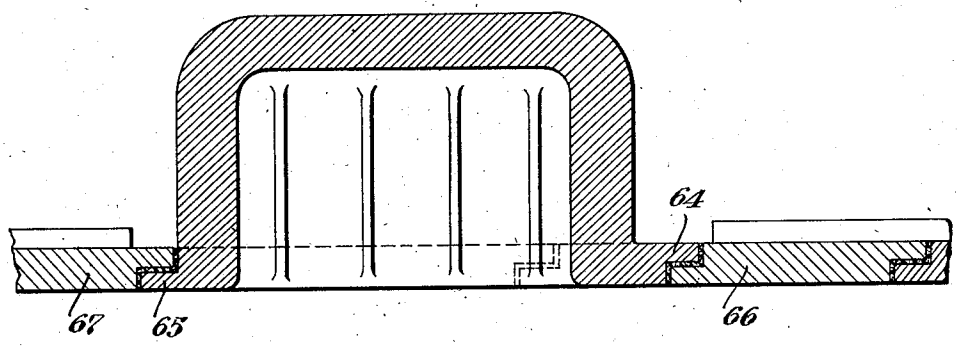


Fig. 8.

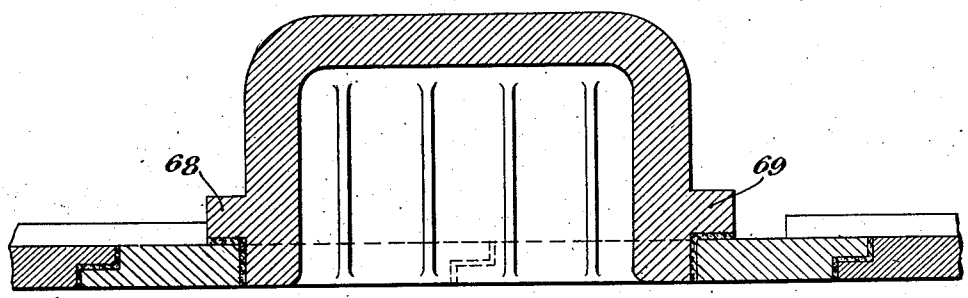


Fig. 9.

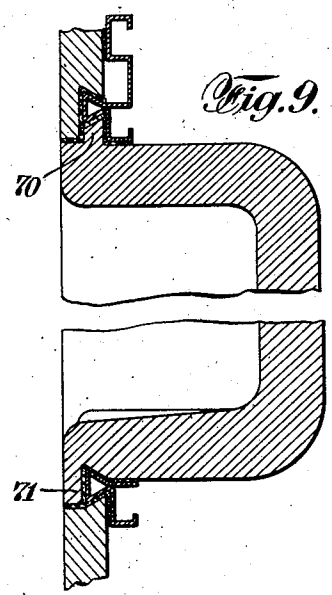
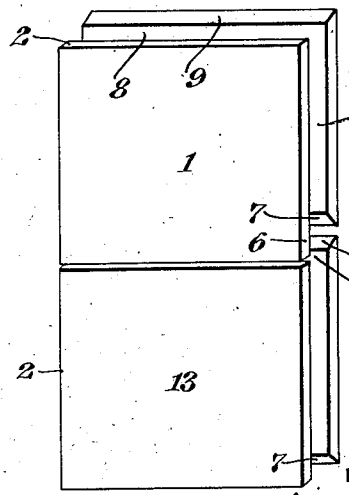


Fig. 14.



INVENTOR
August Rossi
BY
Wood, Cady + Wood
ATTORNEYS

Sept. 8, 1936. A. ROSSI 2,053,643

TILE CONSTRUCTION

Filed March 23, 1936 4 Sheets-Sheet 4

Fig. 19.

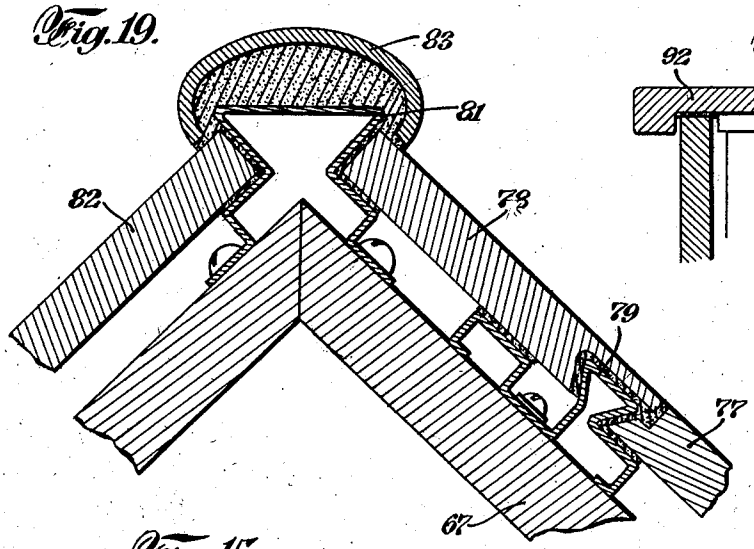


Fig. 18.

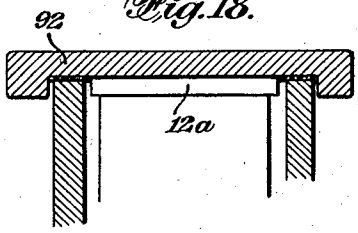


Fig. 17.

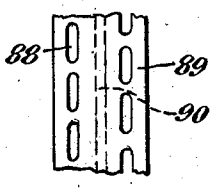


Fig. 15.

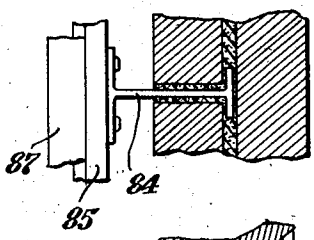
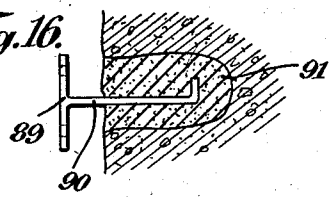


Fig. 16.



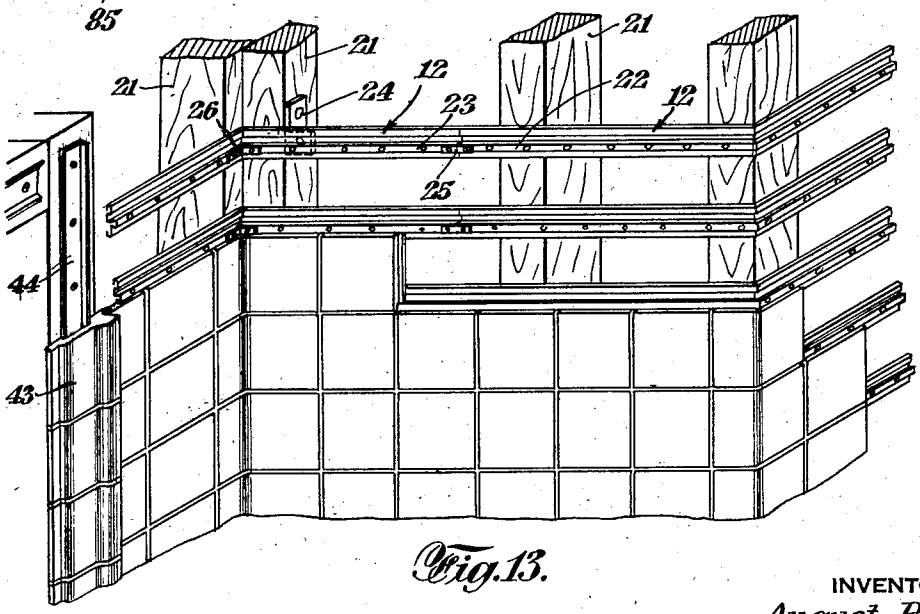


Fig. 13.

INVENTOR
August Rossi
BY
Wood, Cushy & Mack
ATTORNEYS

Patented Sept. 8, 1936 2,053,843

UNITED STATES PATENT OFFICE

2,053,843

TILE CONSTRUCTION

August Rossi, Astoria, N. Y.

Application March 23, 1936, Serial No. 70,318

12 Claims. (Cl. 72—19)

This invention relates to improvements in tiled surface constructions and in methods of tile setting.

The known systems of tile surfacing include constructions wherein the tile are grouted directly to a supporting structure, such as a wall, opposite edges of the tile being provided with complementary tongues, tongues and grooves, or the like, for cementing adjacent tile in lapping relation. Another system is that wherein metal purlins are mounted in parallel relation and at definite spacings on a supporting structure, and tile having suitably grooved edges slid between the purlins after the latter are in place. In other systems, a metal framework is provided comprising intersecting purlins forming rectangular spaces of predetermined dimensions into which tile having appropriately grooved edges are snapped by the resilient action of the metal.

All such systems have proved objectionable in practice. A tiled surface in accordance with the system first mentioned wherein the tile are grouted directly to a supporting structure, cracks easily due to vibration or expansion and contraction thereby rendering the surface pervious to moisture and vermin as well as unsightly. Moreover, the fact that the tile are set in and backed up solidly by mortar results in serious cracking or "crazing" of the exterior surface finish.

Systems in the second and third categories above mentioned, wherein the purlins are mounted initially at predetermined spacings and the tile slid or snapped into place, require tile of dimensions corresponding accurately to the purlin spacings to assure that the tile will fit snugly into their previously allotted spacings. As is well known, however, it is impossible to so mold and fire a given batch of tile in a kiln that all of the finished tile of the batch will have the final dimensions required. Only a certain proportion will have the required dimensions, the remainder being oversize or undersize to varying extents. Such oversize or undersize tile cannot be employed in systems of this character, which of course is objectionable. Moreover, with these systems it is impossible to employ tile having complementary tongues and grooves providing lapped joints between adjacent tile owing to the added restrictions as to accuracy of predimensioning all portions of the tile and the nicety with which the purlins must be set. Accordingly, it is the practice to so dimension and set the tile as to provide spaces between all adjacent edges which spaces are filled with a grouting after the tile are in position. But this grouting is necessarily quite superficial, and hence soon breaks away leaving spaces between the tile and purlins for penetration by moisture, vermin, etc., and further permitting the tile to be rather easily dislodged. Systems wherein the tile are snapped into position are open to the further objection that the grooved edges of the tile required to effect the snap-in setting referred to, are delicate and hence subject to chipping or other fracture.

In accordance with the present invention, the difficulties above noted are eliminated and a tiled surface construction provided which is impervious to moisture, vermin and the like, which is fireproof and which is not susceptible to warping or cracking due to vibration or to expansion or contraction caused by variations in temperature, nor is the tile finish subject to "crazing".

The construction of the invention comprises alternate courses of tile and purlins, the purlins being secured to a supporting structure, such as the wood or steel studs of a wall, roof or ceiling, and the tile being mounted on the purlins. The purlins comprise metal strips having raised, flat faced ridges or tile rests adjacent their edges on which the edges of adjacent tile courses are supported respectively. In addition, the purlins are provided with an outwardly projecting rib, widened above the base and disposed intermediate the tile rests and extending between abutting tile rows, with the abutting edges of the tile conforming to the contour of the purlin ribs to the extent of engaging the same in locking relation, thereby to hold the tile permanently in place. Opposite edges of the tile terminate step-like in complementary tongues whereby adjacent tiles engage one another in lapping relation and also overlie the ribs of the purlins referred to. In order to unite the tile in impervious junctions, a plastic cement or other suitable grouting is disposed between contiguous surfaces. The tiles are thus so mounted in interlocking relation with metal supports and in lapping relation to each other, as to preclude subsequent accidental displacement and thereby to eliminate the hazard of falling members in high wall, roof or ceiling constructions and the like.

The tile are set by a method of coursing, that is, a purlin is first secured to the supporting structure, a tile course thereafter mounted on edge on the purlin, a second purlin secured to the supporting structure in locking engagement with the opposite edge of the tile course, a second tile course mounted on the second purlin, and so on. In order to permit of this method of construction, the purlins are so formed as to be secured to the

supporting structure only at points in advance of a previously set tile course, in accordance with a novel aspect of the invention.

Owing to this method of setting the tile and purlins in alternate courses, it is possible to use all tiles of a given kiln batch with no rejections for undersize or oversize as is the case with the known systems above described, wherein the purlins are set initially at predetermined spacings. Of course, even employing the method of my invention, the tile coming from a given kiln batch must be sorted as to size, accomplished in accordance with the usual practice by means of sorting machines, but once this sorting is effected, the tile of one size may be employed according to my system for one installation and the tile of other sizes in other installations. For example, I may employ tile of one size in surfacing one room, and tile of another size in another room of the same building, or even for different coursings of one room.

The invention is applicable to interior finishes including walls, ceilings and floors, and also to exterior surfacings such as the outer walls of buildings, garden walls, roofs, etc. The surfacing units may comprise slabs, cast stone, tile, etc., made from ceramic, vitreous, metallic, fibrous, cementitious, etc. materials such as terra cotta, glass, asbestos, etc.

In the drawings:

Fig. 1 shows an inner wall section illustrating the tiled surface construction of my invention.

Figs. 2 and 3 are horizontal and vertical sections respectively at 2—2 and 3—3 of Fig. 1, showing the manner in which the tiles are mounted in locking engagement with the purlins and in lapping relation to each other, as well as the manner in securing the purlins to the supporting structure, Fig. 2 shows in addition the invention as applied to the tiled facing of a doorway or window; while Fig. 3 shows the manner of terminating the tiled surface at the floor and in a plaster wall finish.

Figs. 4 and 5 are fragmentary sections corresponding to the upper portion of Fig. 3, showing modified ways of joining a tiled section with a plaster wall finish.

Figs. 6 and 7 are longitudinal and transverse sections respectively at 7—7 and 8—8 of Fig. 1, showing the invention as applied to the setting of built-in fixtures, such as bathroom accessories and the like.

Figs. 8 and 9 are, respectively, transverse and longitudinal sections corresponding to Figs. 6 and 7 illustrating modified arrangements for setting built-in fixtures.

Fig. 10 is a section at 10—10 of Fig. 1, illustrating the setting of the tiled setting of all projecting fixtures and accessories, such as towel brackets or the like.

Fig. 11 is a section at 11—11 of Fig. 1, showing a tiled window sill construction in accordance with the invention; while Fig. 12 is a perspective view of a tile adapted to the window sill finish.

Fig. 13 is an enlarged perspective view of a wall finish somewhat similar to Fig. 1, but with certain of the tile removed to expose the purlins on which the tile are mounted, and the wall studs to which the purlins are secured.

Fig. 14 is a perspective view of two adjacent tiles in accordance with the invention, arranged in the manner in which they would be mounted on the purlins.

Fig. 15 illustrates the invention in plan view as applied particularly to outside wall construction, the purlins being secured to steel I beams built into concrete brick wall, or the like.

Fig. 16 likewise applicable to outside construction, shows in plan view a form of steel supporting member for the purlins adapted to be set into an already existing concrete or brick wall, or the like.

Fig. 17 is a view in front elevation of the steel purlin supporting members of Figs. 15 and 16.

Fig. 18 is a view in transverse section of the invention as applied to the tiled surfacing of both the top and sides of a fully exposed wall, such as a garden wall or the like.

Fig. 19 is a transverse section of the invention as applied to the tiled finish of a roof.

Referring more particularly to the tiled wall construction of Figs. 1, 2, 3, 13 and 14, each tile, such as 1, terminates at opposite ends in the horizontal direction in complementary tongues 2, 3 having preferably right angled cutoffs whereby adjacent tiles such as 1, 4, Fig. 2, engage one another in lapped joints such as 5. In the vertical direction, Fig. 3, each tile, such as 1, terminates at one end in an overlying tongue 6 having a right angled cutoff, the tongue being joined to the tile base by an outwardly beveled cutoff 7. At its opposite edge the tile terminates in an underlying tongue 8 having an outwardly beveled cutoff 9, the tongue being joined to the outer tile surface in a right angled cutoff 10. The faces 7 and 9 are thus oppositely beveled as shown to provide means whereby the tile lockingly engages purlins such as 11 and 12 on which the tile are mounted, and such that adjacent tile such as 1 and 13 likewise engage one another in the vertical direction in lapped joints such as 14.

The purlins, such as 12, comprise metal strip formed preferably from sheet metal to provide adjacent the edges, spaced and preferably flat faced ridges 15, 16 on which the abutting edges of adjacent tile such as 1 and 13 are supported respectively. In addition to the spaced ridges 15, 16 the purlins are provided with an outwardly projecting rib, such as 17, which, in sectional contour, is widened at a point above its base 18 and is preferably of inverted triangular configuration as shown. Rib 17 extends between abutting tiles, such as 1 and 13, the latter by virtue of their beveled faces 9 and 19 following the contour of rib 17 to the extent of engaging the purlins in locking relation as shown.

The purlins are secured to a supporting structure 21, such as the wall studs 21, Fig. 13, by means of screws 22 extending through perforations 23, Fig. 13, in the purlins. These perforations are made in a portion 24, Fig. 3, of the metal strip resting on studs 21 and situated between ridge 15 and rib 17, the latter in turn being disposed intermediate ridges 15 and 16. By virtue of the relative location of components each purlin is secured to studs 21 at points disposed beneath but one course of tile, for example, tile course 1, of the pair of abutting tile courses 1, 13 secured to said purlin. Owing to this arrangement the tile courses and the purlins may be set alternately with resulting advantages and in the manner referred to above and to be explained more in detail hereinafter.

Referring to Fig. 13, the attachment of the purlins 12 to studs 21 is reinforced at intervals by angle irons 24. Where the purlin strips terminate between studs, terminal portions are secured to each other by means of metal strips 25 bolted to the strips. The purlins are terminated at in

and out corners and may be strapped together by angle members 26.

In order to render the tiled surface waterproof, vermin-proof and fireproof, all interstices at the tile junctions are filled with a plastic cement or other appropriate grouting as is indicated at 27, Fig. 2, and at 28, Fig. 3. Due to the fact that the tile are resiliently mounted on the purlins, the fact that the cement employed is preferably plastic and the fact that the tile are disposed in lapping relation to each other, and in overlapping relation to the purlin ribs, as shown at 5, Fig. 2, and at 6, Fig. 3, no cracking at the joints results from vibration or from expansion and contraction due to temperature variations.

The novel method of setting the tile may now be explained by reference to Figs. 2 and 3. Starting, for example, with the floor line in Fig. 3, a purlin 26 of the sectional contour shown, is secured to studs 21. Grouting, such as plastic cement, is applied to the exposed face at 29 of the purlin tile rest, and also all around the edges of tile 30, at 31, 32, Fig. 3, and at 27, 33, Fig. 2. Tile 30 is thereupon pressed into place against purlin 26, and the remainder of the course set in similar fashion. Purlin 34 is now pressed into place against the course 30, and secured to studs 21 by means of screws 35. It will be observed in this connection that up to this point, tile course 13 has not been set so that the screw holes of purlin 34 are fully exposed for reception and screwing up of screws 35. Just as in the preceding course, grouting is applied at 36 of purlin 34 and the tile 13 of the next tile course grouted all around and pressed successively into place. During this procedure the purlin tile rest such as 36 of the preceding previously laid purlin course supports the tile in the position shown in Fig. 3 until the next purlin course is set.

The procedure therefore is to lay the purlins and tile courses alternately, as a result of which the individual tiles of a course may be pressed firmly in place against a previously laid purlin and held there by the grouting. Similarly, the purlin next laid may be pressed firmly against the previously laid tile course and secured in place. Owing to this procedure, the dimensions of the tile are of no consequence so long as they are all the same for a given course. If desired, however, tile of different dimensions may be employed for successive courses or for different installations. Due to the resilient integral assembly thus afforded and the locking engagement between the tiles and purlins, there can be no loosening, detachment of the tiles or breaking away of the grouting.

Figs. 3, 4, 5 show three different top endings for inside construction. In Fig. 3, surface 10 of the terminal tile course must have a glazed finish. Purlin 11 is placed and secured to the wall studs in the manner explained for those previously set. The plaster wall finish 37 is then applied in the usual manner. The top ending of the Fig. 4 modification is finished in the same way as that of Fig. 5, the difference between the two residing merely in the underlying terminal tongue 8 of tile course 1, as against the overhanging terminal tongue 38 of the top tile course in Fig. 4. In the finish of Fig. 5, the upper tile course 39 terminates in a right angled cutoff and the plaster wall finish 40 is terminated adjacent thereto in similar fashion. Space between the two is covered by a strip of corrosion resistant metal 41, such as one having a chromium plated finish. This strip is held in place by screws 42 secured to the wall studs, all spaces between tile course 39 and the plaster wall finish having been previously filled with grouting 43.

Fig. 2 at the left illustrates either a door or window trim. The facing tiles are shown at 43 in transverse section and the purlins on which they are mounted are shown at 44. The procedure is first to secure one of the side trim purlins 44 in place as shown. A tile 43 is then slid onto the purlin from its upper end and grouted in place. The upper surface of the tile is then grouted and the next facing tile slid similarly into place and set, etc. When the side trim is thus set, the top trim is similarly placed, and finally the trim of the remaining side. Appropriately shaped corner piece tile are employed to complete the trim. In the case of a door trim, the tile 43 are grouted at 45 to the door jam 46. On the wall side the trim tile are provided with an underlying tongue 47 against which the wall finish tile 48 are grouted as shown.

Figs. 11 and 12 illustrate the tiled window sill finish of Fig. 1. The wall tile 49 are cut off at right angles below the sill and the sill tile 50 rested thereon. Fig. 12 shows a sill tile in perspective. On the sides it is provided with a right angled cutoff over the portion 51 overhanging the wall and to a point back of the wall tile 49. Back of this point, however, the lateral edges are provided with tongue and groove edges 52, 53 similar to the wall tile construction of Fig. 3. These grooved portions lockingly engage, after the fashion of Fig. 3, purlins 12a transversely mounted on a sill board 54. The window frame moulding is shown at 55, and the window frame at 56.

Fig. 2 illustrates at 57 the finish for an inside corner and at 58 an outside corner. The manner in which the junction is made is obvious from the drawings and from what has been heretofore stated. Likewise, Fig. 7 shows at 59 the manner of setting a cove base in contrast to the floor line finish of Fig. 3.

Figs. 6 and 7 illustrate the manner of setting built-in accessories which do not span an integral number of tiles. The accessory may be provided at either the top or bottom with the tongued construction for engaging a purlin as shown at 60, Fig. 7. At its opposite side there is provided on the exterior face, a rib 61 which underlies the wall tile 62, the upper course of which has a right angled cutoff grouted to the accessory as shown at 63. On its outer lateral faces, Fig. 7, the accessory terminates in the complementary underlying and overhanging tongues 64, 65 for engaging the adjacent wall tiles 66, 67 in lapping relation. Fig. 8 shows a modified way of finishing the outer lateral edges by the provision of ribs 68, 69 underlying and grouted to the wall tile; while in Fig. 9 the upper and lower edges are finished at 70 and 71 with the underlying and overlying tongues for lockingly engaging the wall purlins after the manner of Fig. 3.

All projecting accessories, such as towel racks, etc. may be set in the manner of Fig. 10. If the accessory is small, i. e., less than the width of a wall tile, the upper or lower edge may be finished as at 72 to engage a purlin, the opposite edge being provided with a groove 73 engaging the wall tile 74 in a lap joint, as shown. For larger accessories, such as shown by the dashed line 75, both upper and lower edges may be shaped to engage the purlins as shown at 72 and 76.

Figs. 15 to 17 inclusive, show the invention as applied to inside and outside steel construc-

tion. Fig. 15 applies where steel I-beams 84 for mounting the purlins 85 are built integral with a wall 86. The tile courses 87 are mounted on the purlins in the manner heretofore explained. Fig. 17 shows the face of the I-beam which is slotted at 88, 89 in staggered relation for bolting the purlins to the I-beam at any desired elevation. Where it is required to tile surface a concrete or brick wall, metal purlin studs 89, Fig. 16, are employed which are provided at intervals with anchoring rods 90 projecting into cavities in the wall 91 filled with concrete or cement.

Fig. 18 illustrates the application of a tiled coping to the top of a wall. The coping tile 92 are similar to two window sill tiles, Fig. 12, placed back-to-back and integrally united. The method of setting in accordance with the invention is similar to that explained in connection with the sill construction of Fig. 11.

Fig. 19 illustrates the invention as applied to a tiled roof. The tiled construction and the method of setting are the same as that described in connection with Figs. 1 and 2. Thus, in Fig. 9 the construction comprises tile courses 77, 78 alternating with metal purlins 79, the purlins being secured to a supporting structure 80, such as studs. For terminating the tiling at the apex of the roof a purlin 81 of the special shape shown, is required. In addition, the terminal tile courses 78, 82 are cut off at right angles as shown, and are grouted to purlin 81. The apex of the roof is finished with a tile coping 83, grouted to the tile roof. In the longitudinal direction the coping tile 83 terminates in lap joints.

What I claim is:

1. A tiled surface construction comprising: tile courses alternating with metal purlins, said purlins being secured to a supporting structure and said tile mounted on said purlins, each said purlin being provided with an outwardly projecting rib, widened above its base and extending between abutting tile courses, the abutting edges of said tile courses conforming to said purlin ribs to the extent of engaging the same in locking relation, and adjacent edges of said tile being provided with tongues overlapping each other and said purlin ribs.

2. A tiled surface construction comprising: tile courses alternating with metal purlins, said purlins being secured to a supporting structure and said tile mounted on said purlins, each said purlin being provided with an outwardly projecting rib, widened above its base and extending between abutting tile courses, the abutting edges of said tile conforming to said purlin ribs to the extent of engaging the same in locking relation, and adjacent edges of said tile courses being provided with tongues overlapping each other and said ribs, each purlin being secured to said supporting structure at points disposed beneath but one of the pair of abutting tile courses mounted on said purlin, whereby said tile courses and said purlins may be set alternately.

3. A tiled surface construction comprising: tile courses alternating with metal purlins, said purlins being secured to a supporting structure and said tile mounted on said purlins, each said purlin being provided with an outwardly projecting rib, widened above its base and extending between abutting tile courses, the abutting edges of said tile courses conforming to said ribs to the extent of engaging the same in locking relation, adjacent edges of said tile being provided with tongues overlapping each other and said ribs, each purlin being secured to said supporting structure at points disposed beneath but one of the abutting pair of tile courses mounted on said purlin, whereby said tile courses and said purlins may be set alternately, and a grouting uniting said tile at the junctions to form an impervious surface.

4. A tiled surface construction comprising: tile courses alternating with purlins, said purlins being secured to a supporting structure and said tile courses mounted on said purlins, said purlins comprising metal strips having raised portions at the edges for supporting the abutting edges of adjacent tile courses respectively, and an outwardly projecting rib, widened above the base and extending adjacent rows of tile, the edges of said tile abutting said ribs conforming to the contour thereof to the extent of engaging said ribs in locking relation, and adjacent edges of said tile being provided with tongues engaging one another and said ribs in lapping relation.

5. A tiled surface construction comprising: tile courses alternating with purlins, said purlins being secured to a supporting structure and said tile courses mounted on said purlins, said purlins comprising metal strips having raised portions adjacent the edges for supporting the abutting edges of adjacent tile courses respectively, and an outwardly projecting rib, widened above its base and extending between adjacent tile courses, the edges of said tile abutting said ribs conforming to the contour thereof to the extent of engaging said ribs in locking relation, and adjacent edges of said tile being provided with tongues engaging one another and said ribs in lapping relation, each of said purlins being secured to said supporting structure at points disposed beneath but one of the pair of abutting tile courses mounted on said purlin, whereby said tile courses and said purlins may be set alternately.

6. A tiled surface construction comprising: tile courses alternating with purlins, said purlins being secured to a supporting structure and said tile courses mounted on said purlins, said purlins comprising metal strips having raised portions adjacent the edges for supporting the abutting edges of adjacent tile courses respectively, and an outwardly projecting rib, widened above its base and extending between adjacent tile courses, the edges of said tile abutting said ribs conforming to the contour thereof to the extent of engaging said ribs in locking relation, and adjacent edges of said tile being provided with tongues engaging one another and said ribs in lapping relation, each of said purlins being secured to said supporting structure at points disposed beneath but one row of tile secured to said purlin, whereby said tile courses and said purlins may be set alternately, and a grouting uniting said tile at the junctions to form an impervious surface.

7. A tiled surface construction comprising: tile courses alternating with purlins, said purlins being secured to a supporting structure and said tile courses mounted on said purlins, said purlins comprising metal strips having raised portions adjacent the edges for supporting adjacent edges respectively of said tile courses, and an outwardly projecting rib of inverted triangular section extending between adjacent tile courses, the edges of said tile abutting said ribs being beveled in conformity with said ribs for engaging the same in locking relation, and adjacent edges of said ribs being provided with tongues overlapping each other and said ribs.

8. A tiled surface construction comprising:

tile courses alternating with purlins, said purlins being secured to a supporting structure and said tile courses mounted on said purlins, said purlins comprising metal strips having raised portions adjacent the edges for supporting adjacent edges respectively of said tile courses, and an outwardly projecting rib of inverted triangular section extending between adjacent tile courses, the edges of said tile abutting said ribs being beveled in conformity with said ribs for engaging the same in locking relation, and adjacent edges of said ribs being provided with tongues overlapping each other and said ribs, each said purlin being secured to said supporting structures at points disposed between said raised portions thereon and beneath but one of the pair of abutting tile courses mounted on said purlin, whereby said tile courses and said purlins may be set alternately.

9. A tiled surface construction comprising: tile courses alternating with purlins, said purlins being secured to a supporting structure and said tile courses mounted on said purlins, said purlins comprising metal strips having raised portions adjacent the edges for supporting adjacent edges respectively of said tile courses, and an outwardly projecting rib of inverted triangular section extending between adjacent tile courses, the edges of said tile abutting said ribs being beveled in conformity with said ribs for engaging the same in locking relation, and adjacent edges of said ribs being provided with tongues overlapping each other and said ribs, each said purlin being secured to said supporting structures at points disposed between said raised portions thereon and beneath but one of the pair of abutting tile courses secured to said purlins, whereby said tile courses and said purlins may be set alternately, and a plastic cement uniting said tile at the junctions to form an impervious surface.

10. A tiled surface construction comprising: tile courses alternating with purlins, said tile being mounted on said purlins, means securing said purlins to a supporting structure, said purlins comprising metal strip having flat faced ridges adjacent the edges for supporting adjacent edges respectively of said tile courses, and an outwardly projecting rib of inverted triangular configuration disposed intermediate said ridges and extending between adjacent tile courses, the edges of said tile abutting said ribs being beveled in conformity therewith for engaging the same in locking relation, the opposite edges of each said tile terminating in complementary overlying and underlying tongues respectively whereby said tile engages one another in lapping relation and overlap said purlin ribs.

11. A tiled surface construction comprising: tile courses alternating with purlins, said tile being mounted on said purlins, means securing said purlins to a supporting structure, said purlins comprising metal strip having flat faced ridges adjacent the edges for supporting adjacent edges respectively of said tile courses, and an outwardly projecting rib of inverted triangular configuration disposed intermediate said ridges and extending between adjacent tile courses, the edges of said tile abutting said ribs being beveled in conformity therewith for engaging the same in locking relation, the opposite edges of each said tile terminating in complementary overlying and underlying tongues respectively whereby said tile engages one another in lapping relation and overlap said purlin ribs, each said purlin being secured to said supporting structure at points disposed between said ridges and beneath but one of the abutting pair of tile courses secured to said purlin, whereby said tile courses and said purlins may be set alternately.

12. A tiled surface construction comprising: tile courses alternating with purlins, said tile being mounted on said purlins, means securing said purlins to a supporting structure, said purlins comprising metal strip having flat faced ridges adjacent the edges for supporting adjacent edges respectively of said tile courses, and an outwardly projecting rib of inverted triangular configuration disposed intermediate said ridges and extending between adjacent tile courses, the edges of said tile abutting said ribs being beveled in conformity therewith for engaging the same in locking relation, the opposite edges of each said tile terminating in complementary overlying and underlying tongues respectively whereby said tile engages one another in lapping relation and overlap said purlin ribs, each said purlin being secured to said supporting structure at points disposed between said ridges and beneath but one of the abutting pair of tile courses secured to said purlin, whereby said tile courses and said purlins may be set alternately, and a plastic cement uniting said tile at the junctions to form an impervious surface.

AUGUST ROSSI.