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PARTITION TILE CONSTRUCTION

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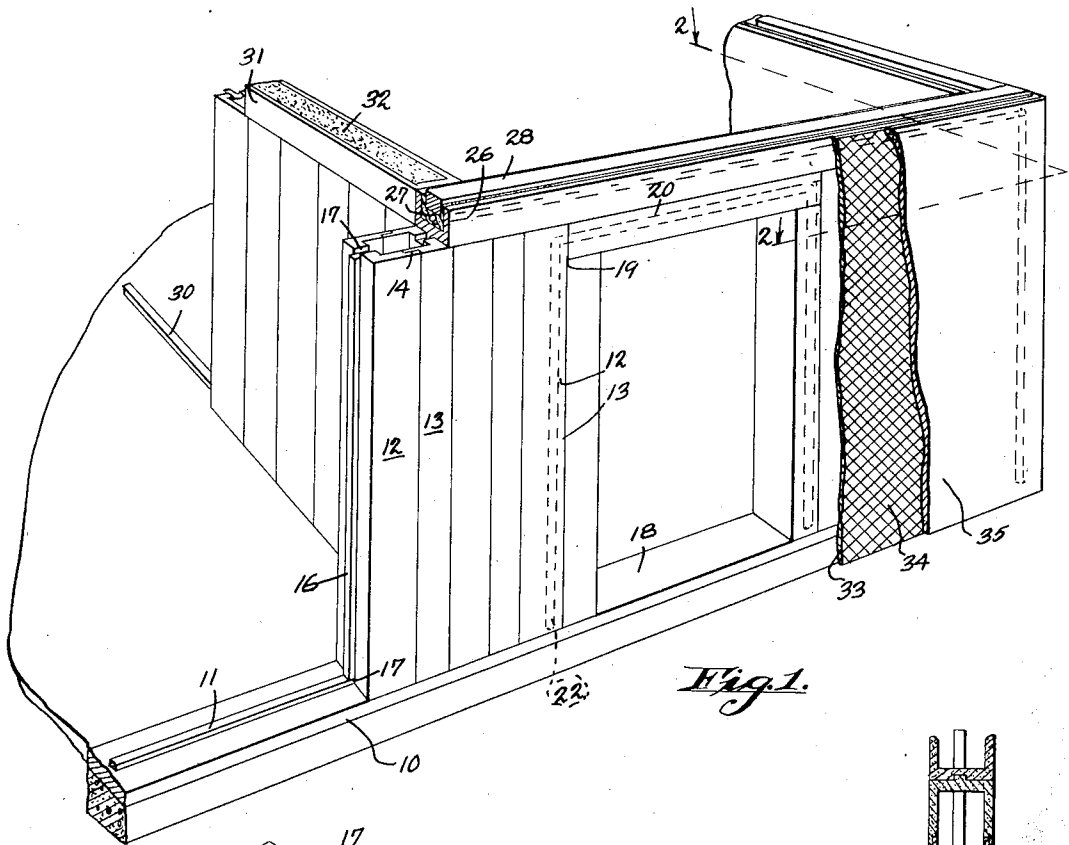


Fig. 1.

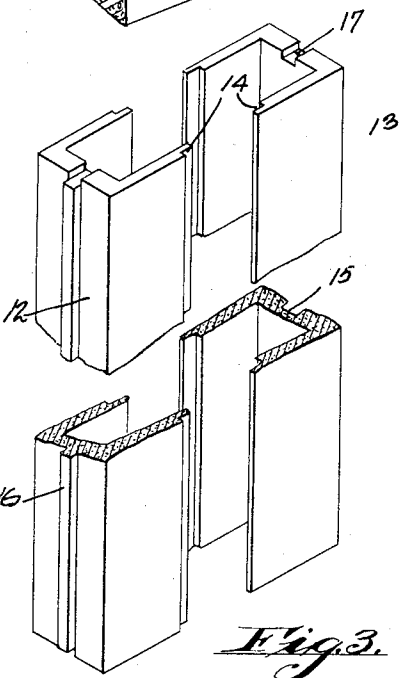


Fig. 2.

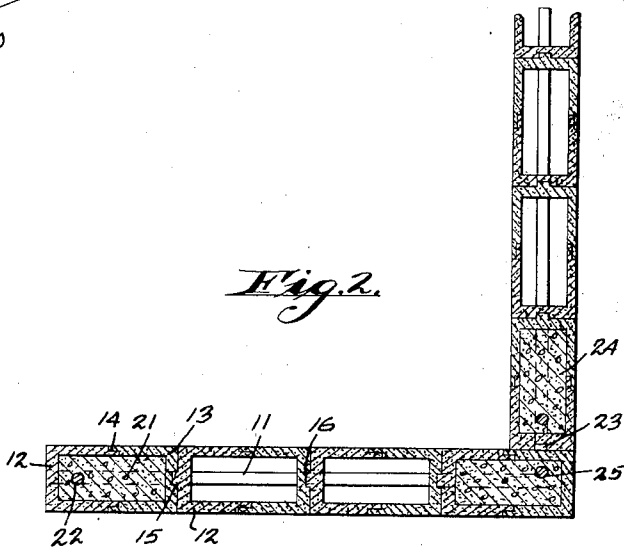


Fig. 3.

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PARTITION TILE CONSTRUCTION

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4 Claims. (Cl. 72-16)

This invention relates to improvements in wall constructions.

An object of the invention is to provide an improved wall construction which may be used on either interior or exterior walls, or which may be used in forming partitions in apartments previously constructed.

The improved wall construction consists primarily of a plurality of hollow tiles formed of gypsum or any equivalent material, which hollow tiles extend substantially from the top of the wall to the bottom thereof. These hollow tiles are divided longitudinally into complementary channel shaped sections which facilitate the manufacture of the completed tile and also facilitate handling in that the weight of each section, which is considerable taking into account that each tile runs from the top of the wall to the bottom thereof, is reduced to substantially one-half of the completed tile. By the improved construction a wall may be easily and quickly erected producing a construction of great durability and having all of the advantages of the conventional hollow tile wall, such as for example its ability to insulate against heat and sound.

With the foregoing and other objects in view, which will be made manifest in the following detailed description, and specifically pointed out in the appended claims, reference is had to the accompanying drawing for an illustrative embodiment of the invention, wherein:

Fig. 1 is a partial view in perspective illustrating the construction of an apartment employing the improved wall construction.

Fig. 2 is a sectional view taken upon the line 2-2 upon Fig. 1.

Fig. 3 is a partial view in perspective of one of the improved tile employed in the improved wall construction.

Referring to the accompanying drawing, wherein similar reference characters designate similar parts throughout, the wall is illustrated as having been erected on a base 10. A strip 11 of relatively small width and thickness is positioned longitudinally on the base. The material which I use for the strip 11 is wood although other materials may be substituted therefor. A plurality of tile are then positioned side by side on the base 10 in upright position. Each tile is hollow and is divided longitudinally at about its center into complementary sections, indicated at 12 and 13 channel shaped in cross section. The opposed edges of the complementary sections are rebated in such a manner as to be complementary to each other as indicated at 14. The outer side

of section 13 is provided with a longitudinally extending groove 15 and in a similar manner the outer side of section 12 is provided with a complementary bead 16. The tops and bottoms of the sections are provided with central grooves indicated at 17, the bottom grooves 17 serving to receive strip 11 constituting a positioning means for holding the bottoms of the tiles against lateral displacement.

The material employed in the construction of the tile may likewise vary under different circumstances. I prefer, however, to use gypsum for this purpose to produce a tile which can be nailed into and sawed so that in many respects the various pieces may be handled and worked in the same manner that wood is worked.

The tiles are positioned side by side with beads 16 fitting in their complementary grooves 15 and provision is made for door openings, window openings, and the like. Such a door opening is indicated by the reference character 18. In arranging for such a wall opening the tops of the tiles at the sides of the opening are cut away, as indicated at 19. This may be accomplished by the workmen at the place of construction by merely sawing out the corners of the tiles so that no specially constructed tile need be constructed for this purpose. A lintel 20 bridges the tiles at the sides of the wall opening and these tiles which form the sides of the wall opening are filled with concrete, indicated at 21, so that they form sturdy jambs for the wall opening. The lintel 20 may be made from one of the sections 12 or 13 so that it is likewise channel shaped in cross section and may receive the concrete 21. A U shaped reinforcing bar 22 is then provided and placed in inverted position, with the legs of the bar extending down through the concrete in the jamb tiles. The central portion is disposed within the concrete in the lintel 20.

At corners a grooved section 13 abuts against the side of the adjacent tile, as clearly shown in Figure 2, and the groove 15 therein is filled, such as by a wooden strip 23. The two tiles at the corner are likewise filled with concrete, indicated at 24, and an inverted U shaped reinforcing bar 25 is embedded in the concrete with its legs extending downwardly through the corner forming tiles. This U shaped reinforcing bar effectively locks the two walls together and the presence of the concrete within the tiles forms a sturdy corner construction.

After the various tiles have been assembled a wall plate is positioned thereon. This wall plate, indicated at 26, consists of a section 12 having a

bead 16. This section is so positioned that its bead rests in the grooves 17 in the tops of the aligned tiles and in this manner the wall plate effectively locks the upper ends of the tiles against lateral displacements. Within the section 12 constituting the wall plate, a longitudinal reinforcing bar 27 is positioned and the section is then filled with concrete and has a wooden member 28 positioned therein. The wooden member 28 serves as the support for rafters of a roof which may be subsequently built on the walls.

In Figure 1 there is also illustrated the manner in which the improved tiles may be used in forming an interior wall or partition. In some instances where a building has already been erected it is desired to install a partition to divide a large room or apartment into two smaller ones. This can be easily accomplished with the improved tile by laying and fastening a base strip 30 to the floor, positioning the sections 12 and 13 of the tiles thereon, extending from the floor to substantially the ceiling. Section 31, which is a section 12 provided with a bead, is then positioned on top of the tiles and may be filled with concrete 32 in which reinforcing means, not shown, is embedded. Or, if desired, the upper section 31 may be omitted and a strip similar to strip 30 fastened to the ceiling, which is received within grooves 17 at the tops of the tiles.

After the wall has been erected a layer of tar paper or equivalent material, indicated at 33, may be nailed or otherwise fastened to the wall and over this a layer of wire mesh 34 is fastened. Plaster, stucco, or other coating, indicated at 35, may then be applied to the wire mesh, forming a wall presenting a continuous appearance.

From the above described construction it will be appreciated that a novel, simple, and advantageous wall construction is provided consisting of a plurality of hollow tiles which extend from the top of the wall to the bottom thereof. The sections of the hollow tiles can be easily assembled together and may be easily modified by the workmen at the place of construction to take care of various conditions such as door openings, window openings, and the like. By manufacturing the hollow tiles in sections, the channel shaped sections may be easily formed or molded and when the sections are assembled together they form a hollow tile which is left open or unoccupied in the majority of tiles used in a wall so that this confined air space within the tile has the property of rendering the wall sound proof and having the property of heat insulator. As the various sections employed in a wall are all locked together in one form or another at both their adjacent side edges and at their tops and bottoms, the completed wall is of very sturdy, durable, monolithic construction.

The improved construction is such that it is absolutely fire proof and likewise is termite proof, which is a decided advantage in many parts of the United States where dwelling constructions formed of wood are subject to the attack of termite. It will also be noted that the erection of the improved wall in no way interferes with other construction of the building. The interior coating may be applied to the wall at any suitable time and insofar as the construction going on within the building is concerned, the erection of the wall is independent of it and in no way interferes.

Various changes may be made in the details of construction without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

1. A wall formed of a plurality of hollow tiles contiguously arranged, each tile extending from top to bottom of the wall and being longitudinally divided into channel shaped sections, the adjacent sections of two adjacent tiles being arranged back to back with the sides of the sections forming the sides of the wall, and means engageable with the tops and bottoms of the sections for holding the sections upright and maintaining them in alignment.

2. A wall formed of a plurality of hollow tiles contiguously arranged, each tile extending from top to bottom of the wall and being longitudinally divided into channel shaped sections, the sides of the section making up each tile being arranged in edge to edge relation and forming the faces of the wall, the back of one channel shaped section having a bead formed thereon and the back of the other channel shaped section of each tile having a complementary groove.

3. A wall formed of a plurality of hollow tiles contiguously arranged, each tile extending from top to bottom of the wall and being longitudinally divided into channel shaped sections, the sides of the section making up each tile being arranged in edge to edge relation and forming the faces of the wall, there being recesses in the tops and bottoms of the backs of all of the sections adapted to receive positioning means.

4. A wall comprising a plurality of channel shaped sections vertically arranged, said sections being arranged in pairs with each pair forming a hollow tile, each pair of sections having their sides arranged in edge to edge relationship with the sides forming the sides of the wall, the meeting edges between the sections of each pair being rebated so as to fit together, and the backs of sections of adjacent pairs having portions fitting together so as to lock the sections against relative lateral displacement.

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