July 5, 1932. R. W. RAFTIS 1,866,129

WALL

Filed Jan. 15, 1930

Fig. 1

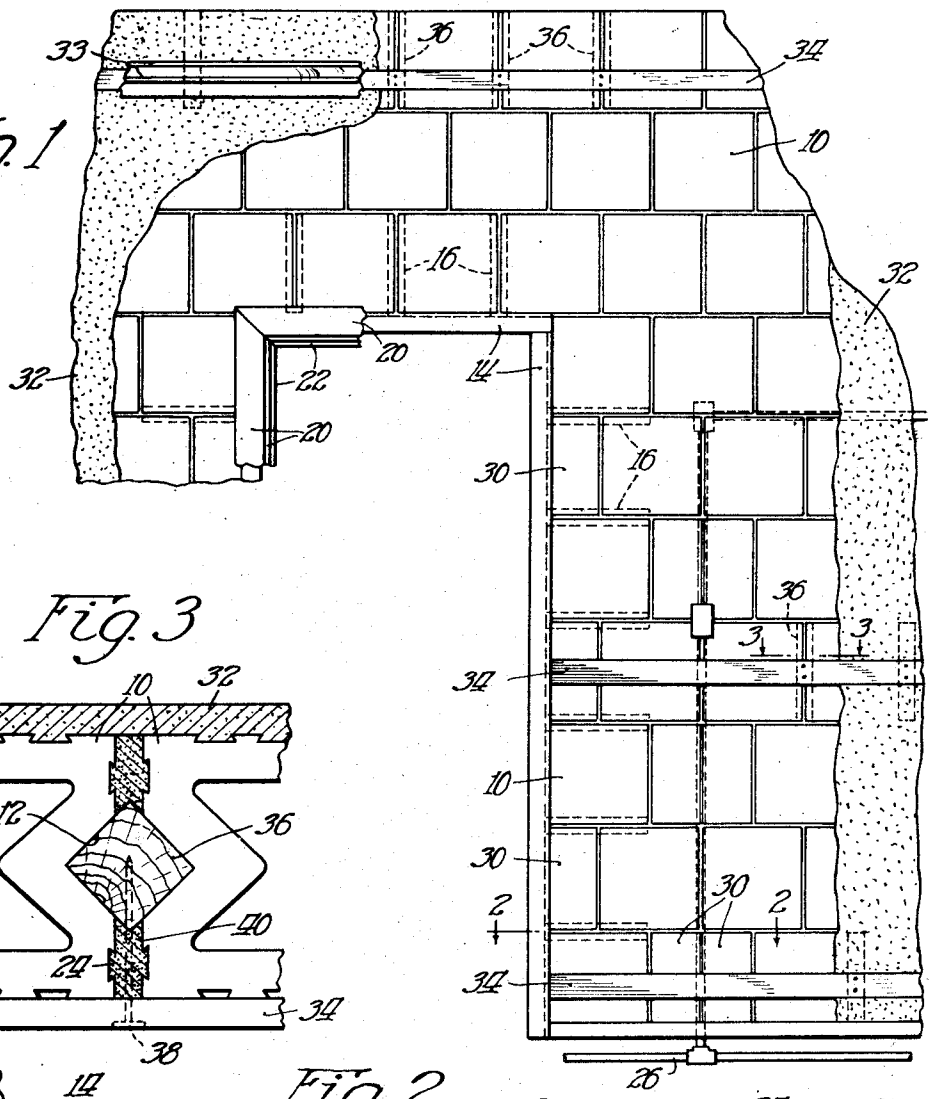
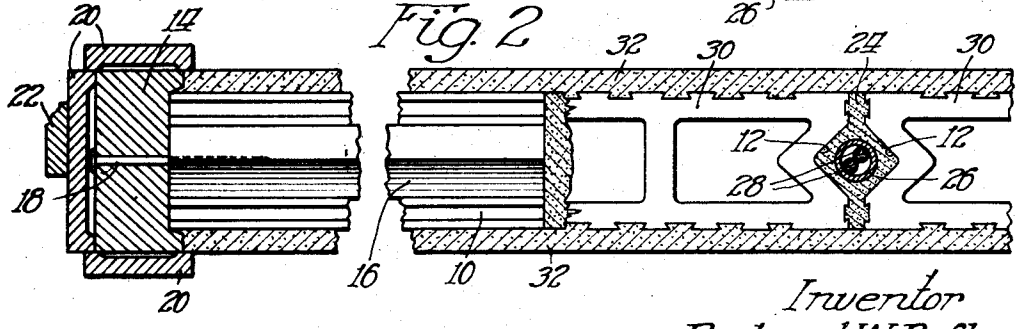


Fig. 3

Fig. 2



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UNITED STATES PATENT OFFICE

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WALL

Application filed January 15, 1930. Serial No. 420,872.

My invention relates to building structures, and includes among its objects and advantages a simplification in the construction of walls, particularly in connection with the type of wall usually used for inside partitioning, and with the installation of the door openings in such walls.

In the accompanying drawing, Figure 1 is a fragmentary elevation, partly in section, of a wall illustrating the principles of the invention;

Figure 2 is a section on line 2—2 of Figure 1;

Figure 3 is a section on line 3—3 of Figure 1.

In the embodiment of the invention selected for illustration, the wall is formed of a plurality of hollow tiles 10, square in side elevation, and having a thickness depending on the thickness of wall desired. Each tile is provided with a V-shaped groove as at 12 in Figures 2 and 3 on each of two diametrically opposite sides.

The door opening illustrated is defined in the first instance by the wood bucks 14, which lie directly in contact with the adjacent tiles. The tiles adjacent the bucks are all positioned with their grooves 12 at right angles to the bucks which leaves a plurality of square spaces for housing the nailing strips 16. The ends of the nailing strips 16 abut the bucks 14 and may receive suitable fastening elements 18 driven directly through the buck into the ends of the nailing strips. This completes the fastening of the door casing in place with respect to the rest of the wall, and the casing may be completed in the usual way as by facing elements 20 and stop strips 22 to abut the edge of the door when the door is closed.

The grooves 12 not only accommodate the nailing strips 16, but they are of such size that one of them combined with the clearance involved in a mortar joint, such as 24, between adjacent tiles, affords clearance for the passage of piping such as 26, for the electric light wires 28. In the embodiment illustrated, part of the piping 26 is a riser parallel to the vertical buck 14. In alternate courses the mason will put in two half tiles 30, just as in laying the straight edge for the door opening, except that the half tile giving the clearance for the piping 26 will have their grooves vertical.

The wall is completed on one or both sides by a surfacing of plaster 32. In most inside rooms, the finished structure includes wood trim 33, which is supported on horizontal grounds such as that at 34 in Figures 1 and 3. Such a ground not only supports the trim but is also a thickness gauge for the plaster. The ground 34 may be securely fastened in place by the use of nailing strips identical with the nailing strips 16, but positioned vertically as indicated at 36 in Figure 1. The nails or fastening elements 38 are driven in through the ground 34 through the mortar 40 forming the joint and into the nailing strip 36.

Since one groove 12 is adequate to allow clearance for the piping 26, such piping can be run at will through any irregular course anywhere in the wall along the joints between tiles, and the location of the door bucks and grounds is such that a generous allowance of nailing strips for these parts of the structure can be provided and still permit the piping 26 to be placed to best advantage. A single simple type of fastening and fastening element serves for the grounds and for the bucks, and the clearance grooves for these fastening elements permit the electrician to run his wiring practically anywhere he desires.

Without further elaboration, the foregoing will so fully explain my invention, that others may, by applying knowledge current at the time of application, readily adapt the same for use under various conditions of service.

I claim:

1. A building structure comprising a wall built up of square tiles, each tile having V-shaped grooves centrally located in two opposite edges, door bucks defining a door opening and abutting said tiles, the tiles adjacent said bucks being laid with their grooved edges at right angles to said bucks, nailing strips laid in the square channels between adjacent tiles, nails passing through said

bucks and into the ends of said strips, piping for electric wires embedded in said wall along the joints between the tiles, said tiles being laid with their grooves positioned to receive said piping, said piping including a riser parallel to one of said door bucks, a horizontal plaster ground, certain of the tiles level with said ground being laid with their grooves vertical, vertical nailing strips in certain of the vertical joints level with said ground, and nails passing through said ground and the mortar between the tiles into said vertical strips.

2. A building structure comprising a wall built up of tiles, each tile having V-shaped grooves in two opposite edges, door bucks defining a door opening, the tiles adjacent said bucks being laid with their grooved edges at right angles to said bucks, nailing strips laid in the square channels between adjacent tiles, nails passing through said bucks and into the ends of said strips, and a piping riser parallel to one of said door bucks and spaced from said buck.

3. A building structure comprising a wall built up of square tiles, each tile having V-shaped grooves in two opposite edges, a vertical door buck, the tiles adjacent said buck being laid with their grooved edges horizontal, nailing strips laid in the square channels between said adjacent tiles; nails passing through said bucks and into the ends of said strips, a horizontal plaster ground, certain of the tiles level with said ground being laid with their grooves vertical, vertical nailing strips in certain of the vertical joints level with said ground, and nails passing through said ground and the mortar between the tiles into said vertical strips.

4. A building structure comprising a wall built up of square tiles arranged in a plurality of courses, each tile having V-shaped grooves in two opposite edges, the tiles comprising alternate courses being arranged in vertical alinement and laid with their grooves vertical, and a plurality of tiles smaller than the first named tiles and having grooves in certain of their edges, said smaller tiles being placed in alternate courses of the first named tiles and with their grooves alined with the grooves in certain of the tiles in alternate courses, whereby a straight conduit may be positioned in the opening defined by said alined grooves.

5. A building structure comprising a wall built up of square tiles arranged in a plurality of courses, each tile having V-shaped grooves in two opposite edges, the tiles comprising alternate courses being arranged in vertical alinement, the tiles comprising some of the courses beng positioned with their grooved edges vertical and the tiles comprising other courses being arranged with their grooved edges positioned in horizontal planes, and a plurality of tiles smaller than the first named tiles and having grooves in certain of their edges, said smaller tiles being placed in alternate courses of the tiles and positioned with their grooved edges vertical and alined with certain of said first named vertical grooves, whereby a straight conduit may be positioned in the opening defined by the grooves in the smaller tiles and certain of the grooves in the other tiles associated with the grooves in the smaller tiles, certain of the horizontal grooves being arranged in alinement for receiving a straight conduit connected with said first named conduit.

6. A building structure comprising a wall built up of square tiles arranged in a plurality of courses, each tile having grooves in two opposite edges, door bucks defining a door opening and abutting certain of the tiles, the tiles adjacent said bucks being laid with their grooved edges at right angles to the bucks, fastening strips laid in the channels between the adjacent tiles abutting said bucks, fastening means passing through said bucks and into the ends of said fastening strips, certain of the tiles being arranged with their grooved edges in vertical alinement, the tiles in alternate courses being arranged in offset relation with the other tiles, and a plurality of smaller tiles positioned between alternate courses and having grooved edges alined with certain of said last named grooved edges whereby a conduit may be positioned in the opening defined by said last named grooves, other of said tiles having their grooved edges positioned in a horizontal plane and arranged for receiving a horizontal conduit connected with the first named conduit.

7. A building structure comprising a wall built up of cellular tiles, a vertical door buck, and nailing pieces embedded in said wall between the edges of adjacent tiles with their ends abutting said buck, the tiles adjacent said bucks being of identical construction with the rest of the tiles in the wall.

In testimony whereof I hereunto affix my signature.

RICHARD W. RAFTIS.