A. O. THOMAS.

BUILDING TILE.

APPLICATION FILED MAR. 12, 1917.

1,302,728. Patented May 6, 1919.

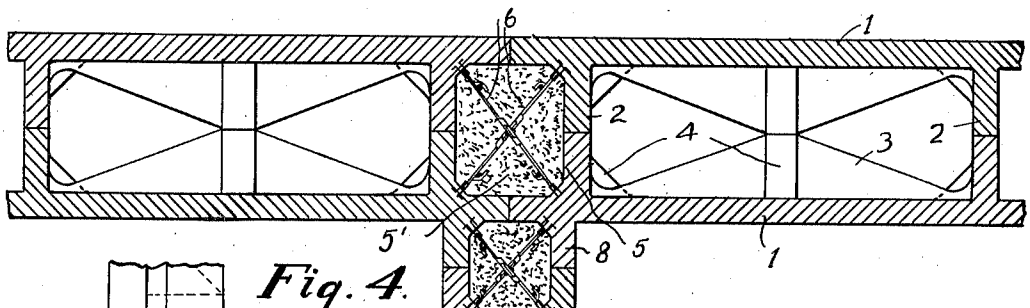


Fig. 4.

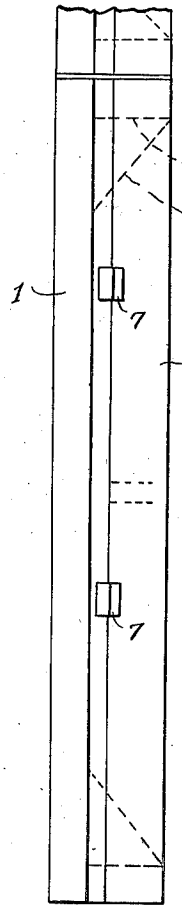


Fig. 2.

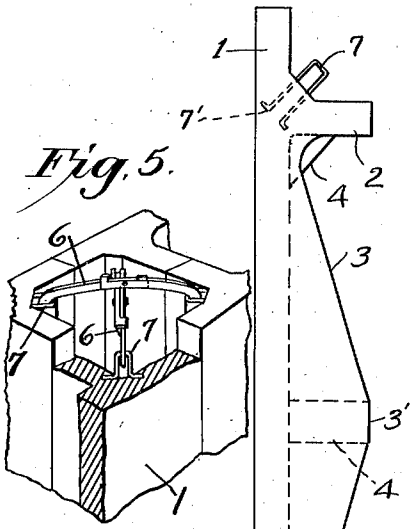


Fig. 5.

Fig. 3.

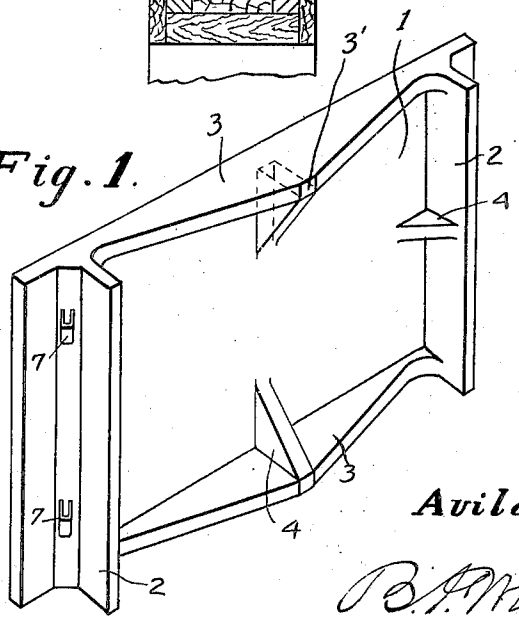


Fig. 1.

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BUILDING-TILE.

1,302,728. Specification of Letters Patent. Patented May 6, 1919.

Application filed March 12, 1917. Serial No. 154,106.

To all whom it may concern:

Be it known that I, AVILA O. THOMAS, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Building-Tile, of which the following is a specification.

This invention relates to wall constructions and its object is to provide a wall comprised of two-part hollow blocks connected by tie members in a novel and efficient manner, and arranged at suitable intervals to receive a concrete filling reinforced by said tie members and forming columns for strengthening the wall and supporting roofs, floors, beams, or other loads.

Other objects are to provide a hollow block wall that may be rapidly erected, and one that will have abutting faces of considerable area between adjacent tiers of blocks so as to allow a large spread of mortar.

The provision of a two-part block comprised of duplicate members that may be easily molded is another feature.

These objects are accomplished by the construction disclosed in the accompanying drawings, wherein:

Figure 1 is a perspective view of one of the members which when arranged in pairs form hollow blocks.

Fig. 2 is an end view of the same, showing also a portion of a similar superimposed member.

Fig. 3 is a top view of the same.

Fig. 4 is a horizontal section through a main wall and a partition wall embodying the novel features herein disclosed.

Fig. 5 is a fragmentary perspective view of a columnar portion of the wall showing diagonal tie and anchor members for securing the tiles together.

In these views the reference character 1 designates a tile, either baked or air-dried, which comprises a flat, rectangular plate having ribs 2 and 3 projecting from one of its faces, the ribs 2 being set back from the respective ends of the tile and the ribs 3 extended between the ribs 2, respectively, along the top and bottom edges of the tile. The ribs 2 have edge faces in a common plane parallel to the plate 1, and the ribs 3 have edge faces which intermediate the tile extremities have small areas 3′ in the plane of said edge faces of the ribs 2. At each side of the areas 3′, the ribs 3 are gradually reduced in height, being almost flush with the plate 1 adjacent the ribs 2. Each of the ribs 2 and 3 is buttressed substantially midway of its length by a triangular rib 4. When two of said tiles are arranged with the plates 1 parallel and the ribs 2 and 3 abutting, they form a hollow block. When a wall is formed of tiers of said blocks, with the transverse vertical joints of the tiers registering, columnar openings 5 will be formed at said joints between the ribs 2 of adjacent blocks and the end portions of the plates 1. Such a wall may be regarded as comprised of two parallel partitions each similarly formed by tiers of tiles. To maintain these partitions in parallel relation, and to prevent relative movement of the blocks or of the tiles forming the blocks, tie members 6 are extended diagonally across the openings 5 connecting oppositely disposed tiles of adjacent blocks. The specific features of these tie members are made the subject matter of a copending application, and it need be said here only that said members have downturned ends which are engaged in U-shaped brackets 7. Said brackets are partially embedded in the tiles at the junctures of the ribs 2 with the plates 1, and have their extremities oppositely bent as indicated at 7′ to afford a better anchorage. By filling the spaces 5 with concrete or similar cementitious material embedding the tie members 6, columns 5′ are formed which strongly reinforce the wall and serve to carry the weight of floors, roofs, beams, or any other load. It will not ordinarily be necessary to form these columns in all of the spaces 5, but only at the points where considerable loads are concentrated.

The main advantage derived from the use of two-part hollow blocks, such as have been above described, lies in the fact that any use of cores is eliminated during the molding of the blocks, so that the manufacture is simplified and cheapened. The provision for producing concrete columns within the wall itself wherever desired is highly advantageous in that it eliminates the setting up and taking down of a form for pouring the column and avoids any interruptions in the continuity of the wall surfaces by the columns. A high degree of rigidity is imparted to the wall by the embedding in the columns of the tie members 6, since by thus prohibiting any relative movement of said members, there is also positively prevented any relative motion of the

tiles connected by said members. The ribs 3, since they are flush with the top and bottom edges of the tiles, give stability to the wall by furnishing each tile with surfaces of considerable area to respectively support said tile on the underlying tile and to form a seat for the overlying tile.

By the term "tile" as used in the foregoing specification and following claim is understood any cementitious member whether baked or water-set.

What I claim is:

In a wall construction, the combination with tiers of blocks having registering transverse vertical joints and forming a columnar opening at said joints, each of said blocks comprising two tiles having abutting portions forming walls of said openings, two sets of tie members extending diagonally across said opening between tiles of abutting blocks, and a pair of anchorage members engageable by each tie member through a vertical movement of the latter, said anchorage members being partially embedded in the connected tiles and projecting therefrom diagonally of the columnar opening.

In testimony whereof I sign this specification.

AVILA O. THOMAS.