

Nov. 18, 1924.

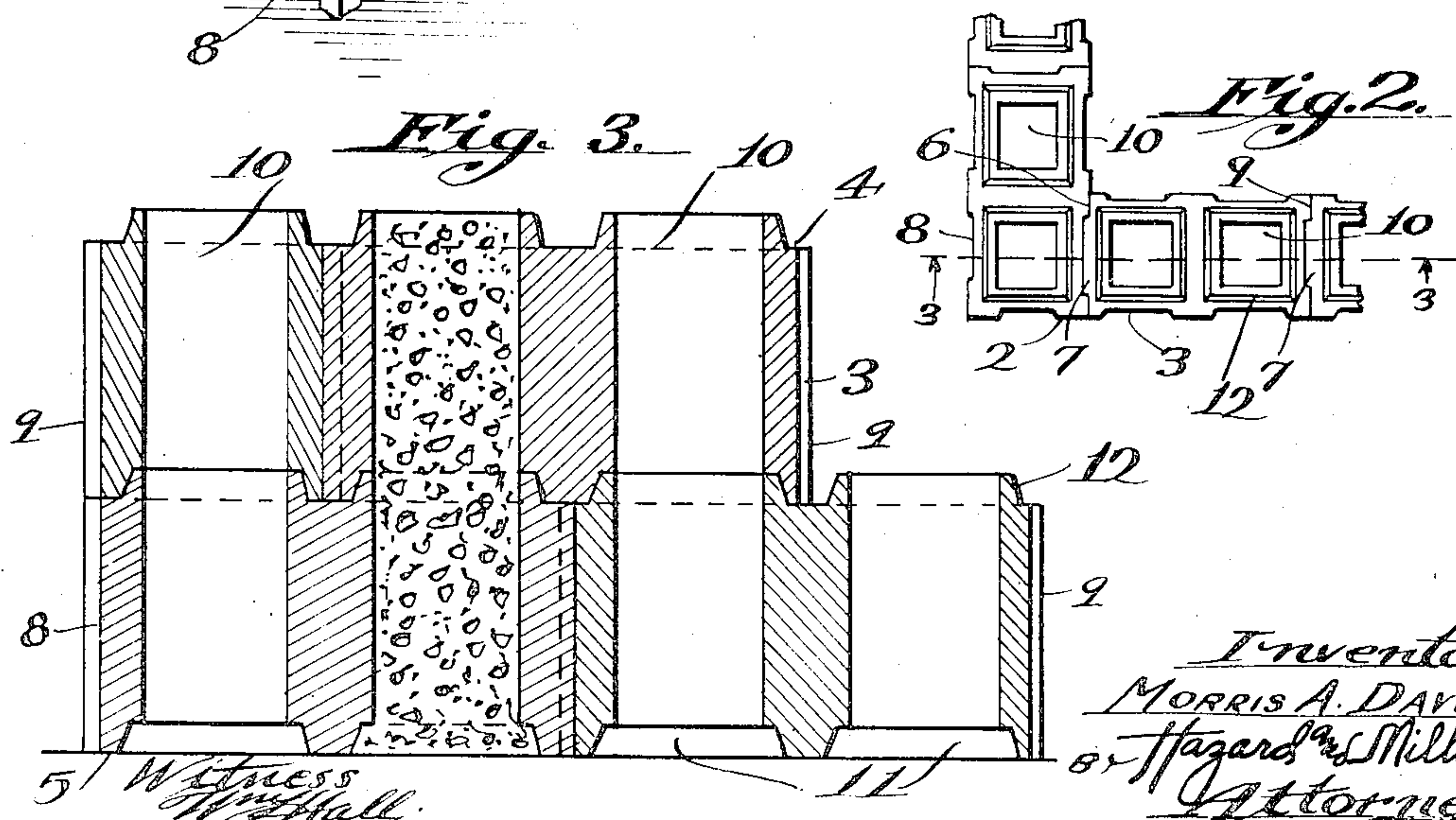
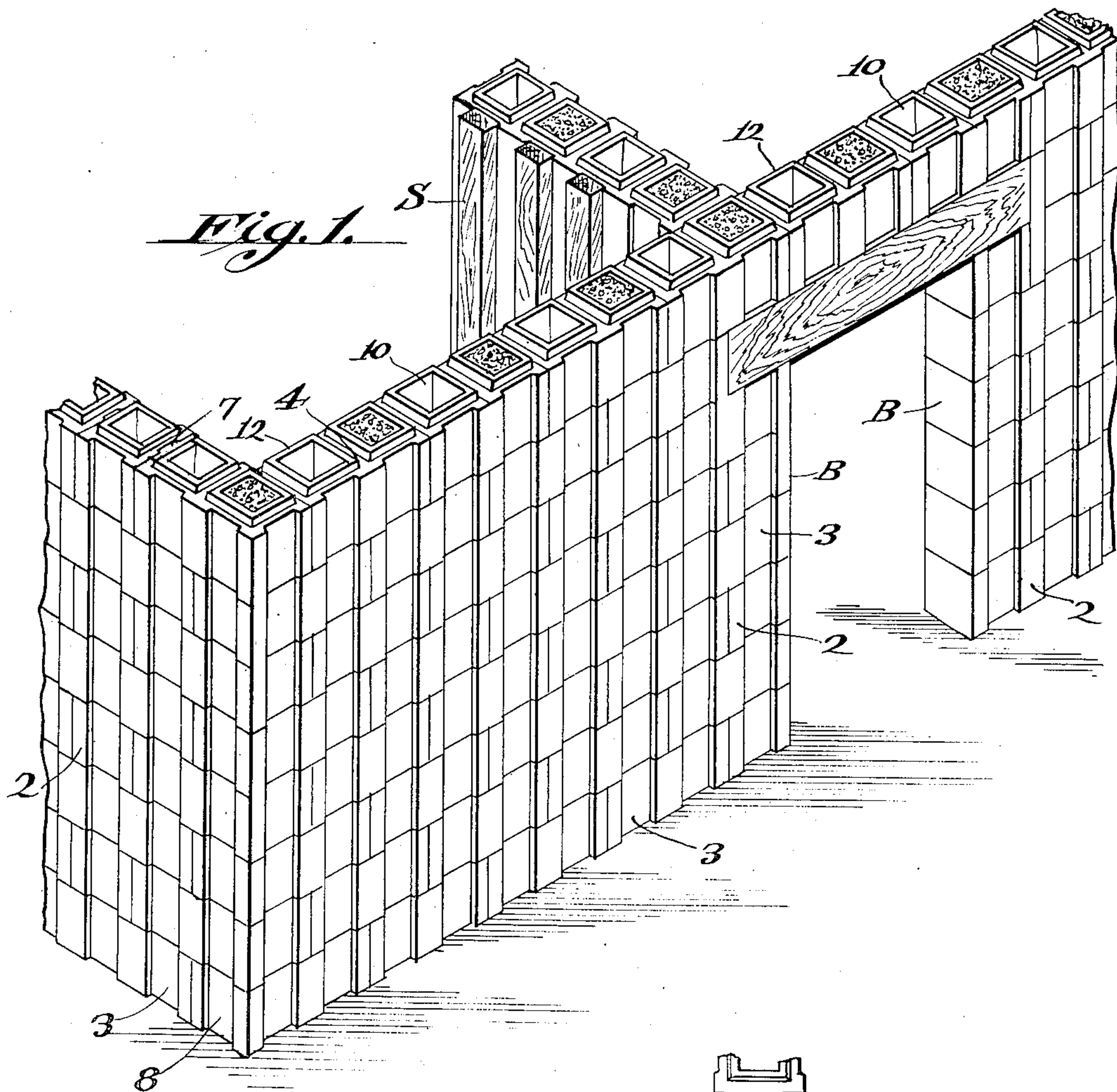
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M. A. DAVIS

INTERLOCKING BUILDING TILE

Filed June 7, 1923

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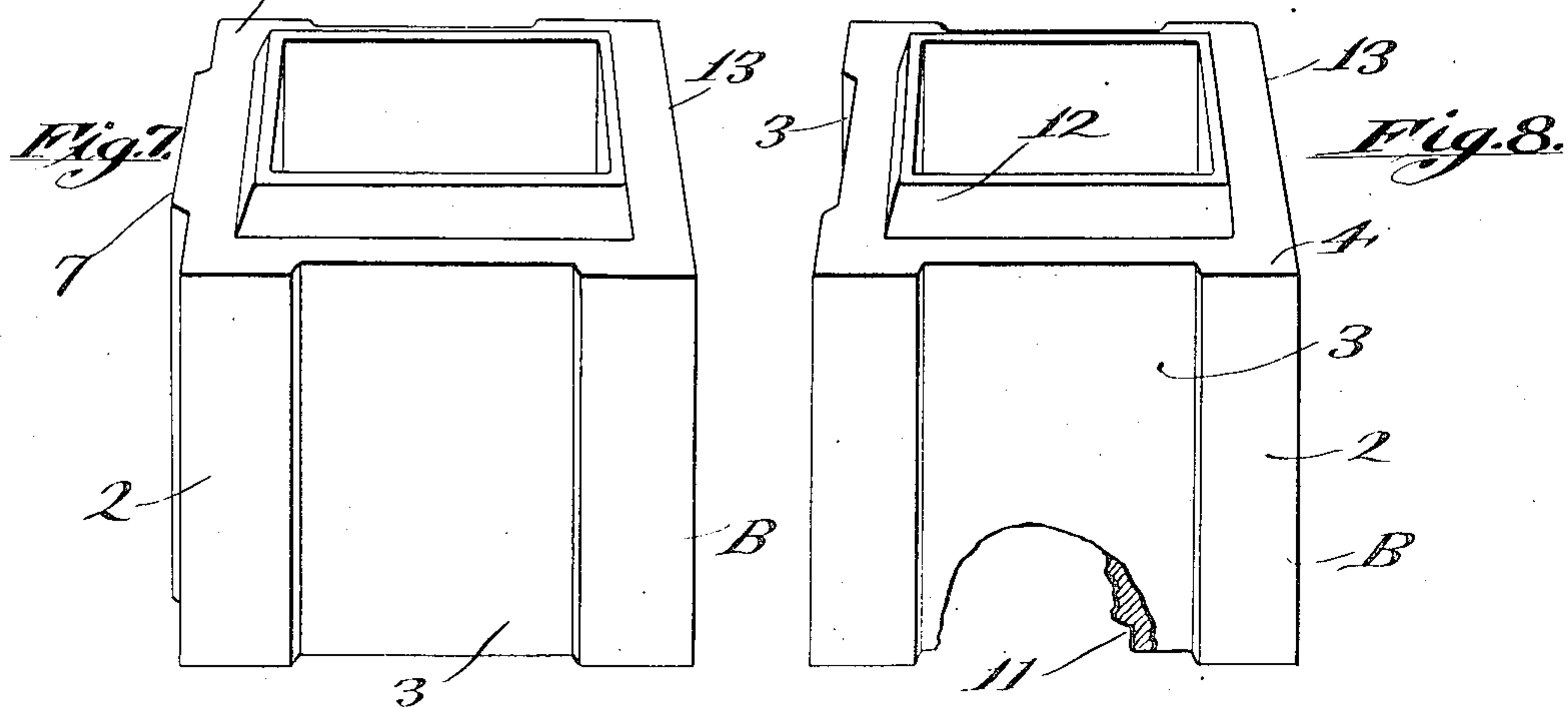
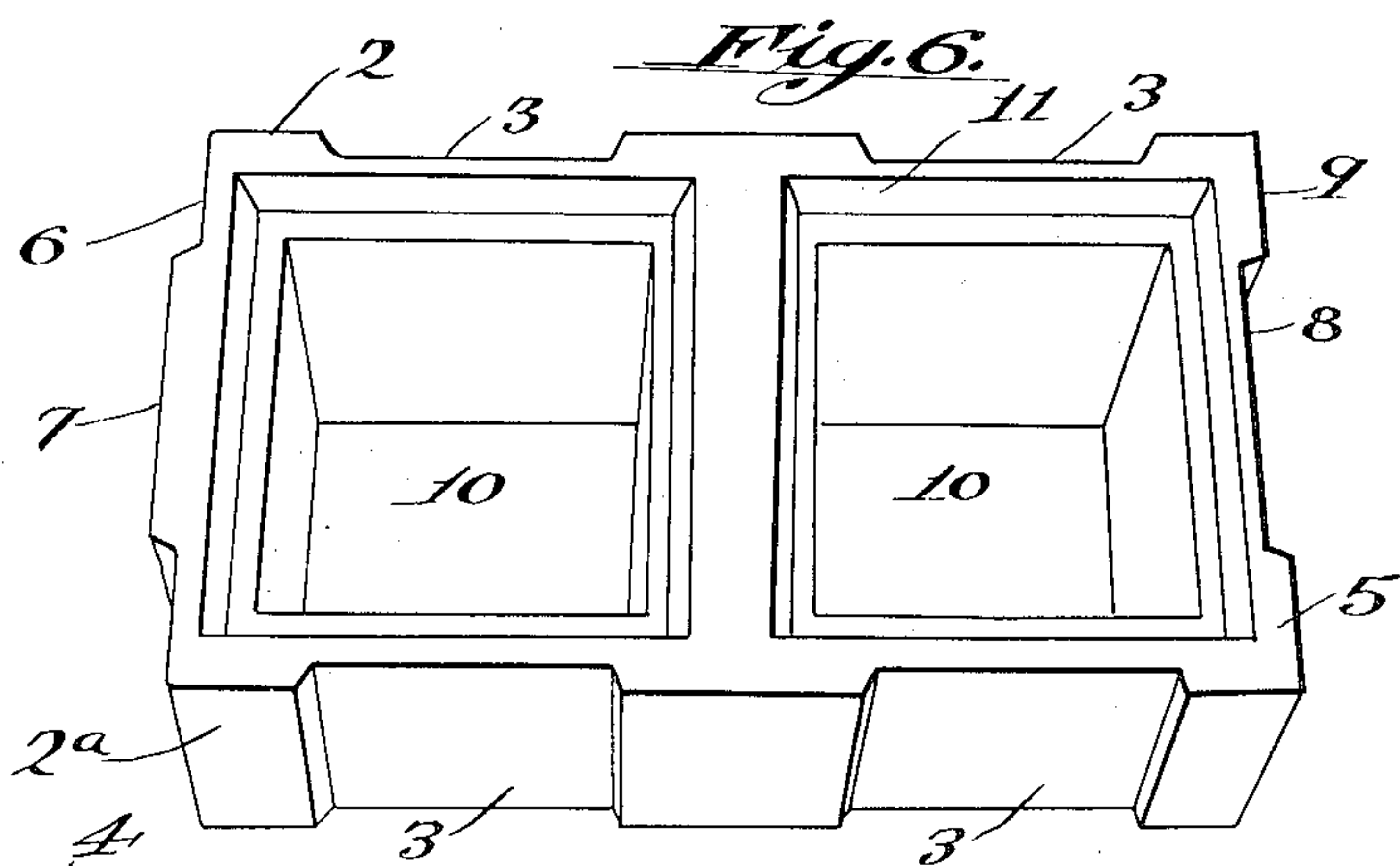
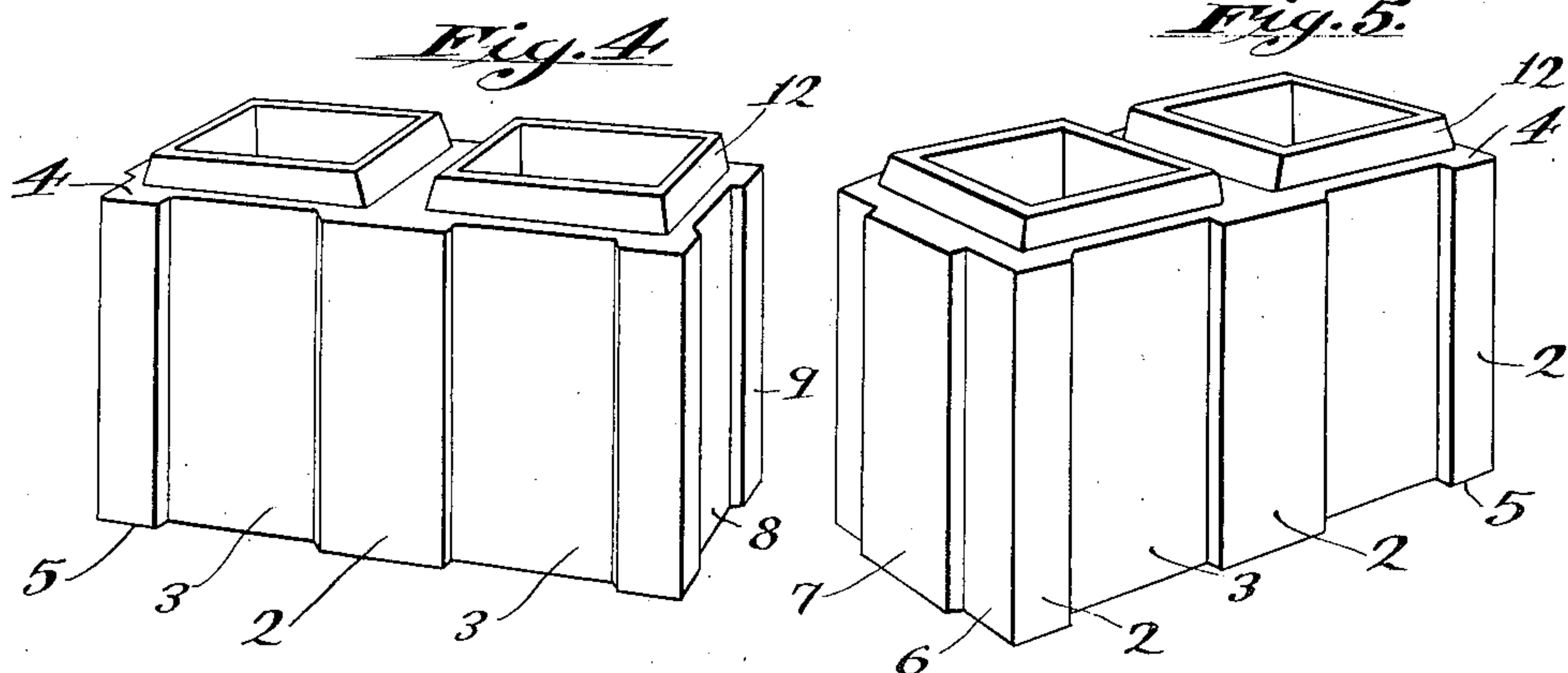
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2 Sheets-Sheet 2



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Patented Nov. 18, 1924.

1,516,473

# UNITED STATES PATENT OFFICE.

MORRIS A. DAVIS, OF LOS ANGELES, CALIFORNIA.

## INTERLOCKING BUILDING TILE.

Application filed June 7, 1923. Serial No. 643,927.

*To all whom it may concern:*

Be it known that I, MORRIS A. DAVIS, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Interlocking Building Tiles, of which the following is a specification.

This invention relates to interlocking building tiles, and has for its object to provide a building block or tile of hollow form and which enables the building of a substantially hollow wall with continuous vertical apertures which are separated by continuous vertical webs, or walls forming outer and inner, plane and continuous wall faces which are adapted to be plastered over to present any desired finishing surface. An object is to provide an interlocking building block having at the top and bottom one or more square locking tenons, and the opposite face of the block is provided with mortises or recesses complementary to the tenons of contiguous blocks. The square formation of the tenons and their mortises enable the ready and accurate positioning of the blocks either to form a plane wall or to form right angular, intersecting walls and corners of walls.

Other objects and advantages will be made manifest in the following specification of an embodiment of the invention illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective showing a portion of a wall built of the improved building blocks.

Fig. 2 is a plan showing a fragment of a corner wall intersection.

Fig. 3 is a section on the plane indicated by line 3—3 of Figure 2; on a somewhat larger scale.

Fig. 4 is a perspective looking toward the recessed end of the block.

Fig. 5 is a perspective looking toward the ribbed end of the block.

Fig. 6 is a perspective of the recessed bottom of the block.

Fig. 7 is a perspective of a half-block or "bat", one of the faces of which is provided with an interlocking rib, and

Fig. 8 is a perspective of a ribless bat.

The building block of the present invention is of the monolithic type, and is generally oblong in plan, the opposite, longitudinal faces 2 and 2<sup>a</sup> of the block being provided with recesses or channels 3, extending from top to bottom faces 4—5. One end wall 6

of the block is provided with a broad rib 7, adapted to mortise into a recess such as is provided at 8 in the end face 9 of each block. The broad face pockets or channels 3 are of similar contour and approximately the same dimensions as the tenon-like ribs 7, so that the blocks may be assembled in horizontal courses with the ends of one block abutting the recessed end of another block in the same straight course, or blocks may be abutted at right angles, with the tenon ribs 7 entering the side pockets 3 of contiguous blocks.

This method of constructing a wall is clearly shown in Figures 1, 2 and 3.

The blocks are preferably provided with spaced air chambers 10, which are parallel to each other and extend from the top face 4 to the bottom face 5, so that when the blocks are erected in superimposed courses, they will form within the wall continuous, vertical air spaces, and in the erection of walls with the improved blocks, any of the continuous vertical air spaces may be filled with mortar which, when solidified, will form a substantially monolithic, reinforcing column from top to bottom of the wall, or for any such height in the wall as may be desired. While the filled pockets provide for an interlocking, pillar-like, reinforcing means, the unfilled vertical air spaces provide an air chamber and also form, therefore, a substantially hollow wall.

The top and bottom faces of each block are adapted to be mutually interlocked when applied in substantially meeting position, and to accomplish this interlocking of the top and bottom faces, one of these faces is provided, around the air chamber 10, with a rebated or countersunk seat 11, and the opposite top or bottom face of each block is provided with an upwardly extending tenon-like bead 12, more or less closely conforming in shape and dimensions to its seat 11, as presented by the next superimposed or subjacent block. The tenon beads 12 are adapted to match in their respective seats 11, whether the blocks are laid in linear courses or whether certain of the blocks are set at right angles to upper or lower courses, as in the throwing of corner walls or intermediate partitions.

Obviously, in corner wall structures, and also in walls having window or door openings in which the courses are laid in successively alternate position to break joints, there will be produced alternate spaces by



the offset position of the course blocks, and these spaces are filled with half-blocks or bats, such as are clearly shown at B in Figures 7 and 8.

5 These bats are of slightly different form, in accordance with their positions in the wall. The bat of Figure 7 is shown as provided on one face with an interlocking rib 7 to match into the end seats provided in a  
10 contiguous block end 9. Other faces of the bat of Figure 7 are provided with seats 3, to receive contiguous, ribbed end blocks.

In Figure 8, the half-block or bat is shown as ribless, and has three of its faces  
15 provided with seats 3. The bats of Figures 7 and 8 have each a plane face 13, since these are designed to be presented without abutment either in a wall corner or in the plumb faces of a wall opening. The bats  
20 B are each provided with beads 12 at their top or bottom faces, and with bead receiving seats 11, so that they will be interlocked with the upper or lower blocks in the wall courses.

25 A feature of the block of the present invention is that when they are used in walls, a contiguous stud S of a partition can be partially embedded in one of lateral or end recesses or pockets, and therefore form a  
30 substantial reinforce for the stud, as is shown in Figure 1.

Further embodiments, modifications and variations may be resorted to within the principle of the invention.

35 What is claimed is:

1. A building block having its longitudinal side faces provided with pockets from top to bottom, one end of the block being provided with an interlocking rib and the  
40 other end with a seat to receive a contiguous rib of an adjacent block in a wall course, each of said pockets being capable of receiving said contiguous rib, interlocking, tenon-like beads upon one longitudinal  
45 face of the block, and the opposite, longitudinal face having countersunk seats to receive the tenon-like beads of a contiguous block.

2. A building block of hollow construction and having its longitudinal side faces provided with pockets from top to bottom, one end of the block being provided with an interlocking rib and the other end with  
50 a seat to receive a contiguous rib of an adjacent block in a wall course, each of said pockets being capable of receiving said contiguous rib, interlocking, tenon-like beads upon one longitudinal face of the block, and the opposite, longitudinal face  
55 having countersunk seats to receive the tenon-like beads of a contiguous block.

3. A building block having its longitudinal side faces provided with pockets from top to bottom, one end of the block being  
60 provided with an interlocking rib and the

other end with a seat to receive a contiguous rib of an adjacent block in a wall course, each of said pockets being capable of receiving said contiguous rib, interlocking, tenon-like beads upon one longitudinal  
70 face of the block, and the opposite, longitudinal face having countersunk seats to receive the tenon-like beads of a contiguous block, the block having an air chamber from top to bottom. 75

4. A building block having its longitudinal side faces provided with pockets from top to bottom, one end of the block being provided with an interlocking rib and the other end with a seat to receive a contiguous  
80 rib of an adjacent block in a wall course, each of said pockets being capable of receiving said contiguous rib, interlocking, tenon-like beads upon one longitudinal  
85 face of the block, and the opposite, longitudinal face having countersunk seats to receive the tenon-like beads of a contiguous block, the block having a plurality of air chambers extending side by side from top to bottom and of symmetrical arrangement  
90 and form, whereby, when the blocks are laid in superimposed courses, the chambers of the blocks will register to form a continuous vertical air space.

5. In a building block having its longitudinal side faces provided with pockets from top to bottom, one end of the block being provided with an interlocking rib and the other end with a seat to receive a contiguous  
100 rib of an adjacent block in a wall course, each of said pockets being capable of receiving said contiguous rib, interlocking, tenon-like beads upon one longitudinal  
105 face of the block, and the opposite, longitudinal face having countersunk seats to receive the tenon-like beads of a contiguous block, the said beads being of square contour in plan, whereby the blocks may be laid in superimposed, linear courses and  
110 may be laid in right angular walls or partitions intersecting each other and interlocked in such positions.

6. A building block having its longitudinal side faces provided with pockets from top to bottom, one end of the block being provided with an interlocking rib and the other end with a seat to receive a contiguous  
115 rib of an adjacent block in a wall course, interlocking, tenon-like beads upon one longitudinal face of the block, and the opposite, longitudinal face having countersunk seats to receive the tenon-like beads of a contiguous block, all of the pockets and recesses of a block being adapted to receive a tenon-like projection of another  
120 block so as to interlock in one position therewith. 125

In testimony whereof I have signed my name to this specification.

MORRIS A. DAVIS.