

No. 754,384.

PATENTED MAR. 8. 1904.

P. J. McGUIRE.  
WALL STRUCTURE.

APPLICATION FILED DEC. 6, 1902. RENEWED OCT. 20, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

FIG. 1.

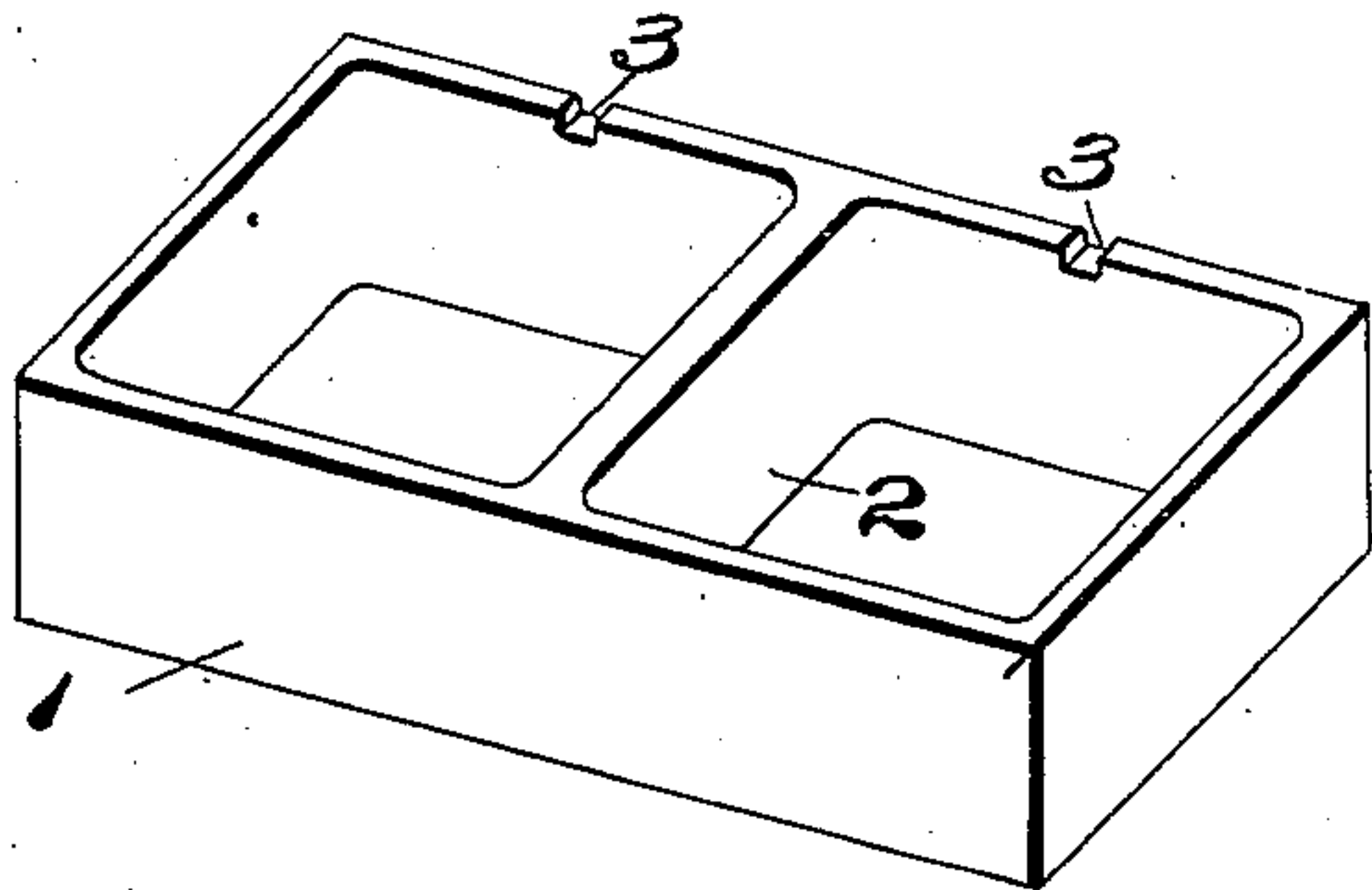


FIG. 2.

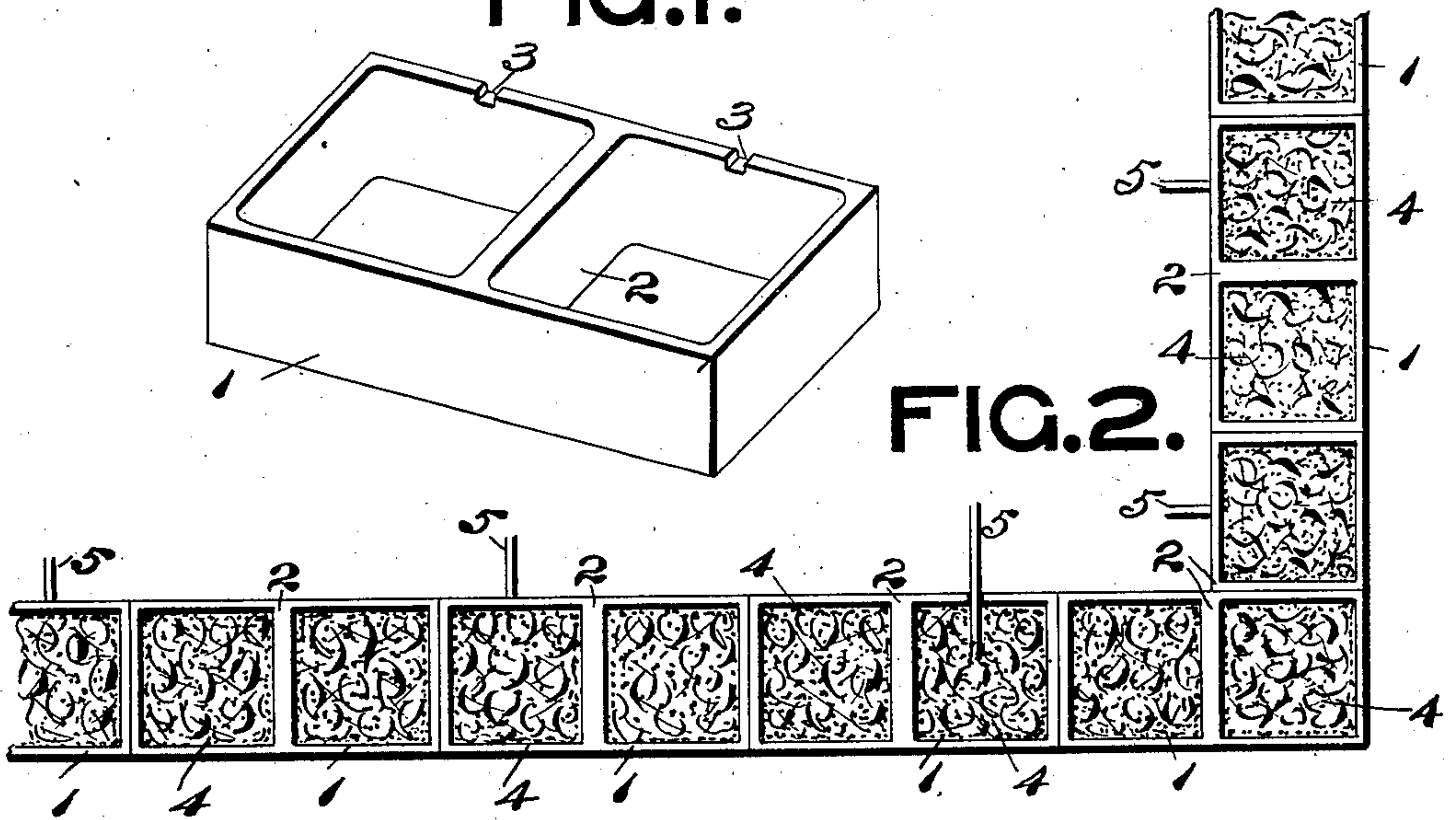


FIG. 3.

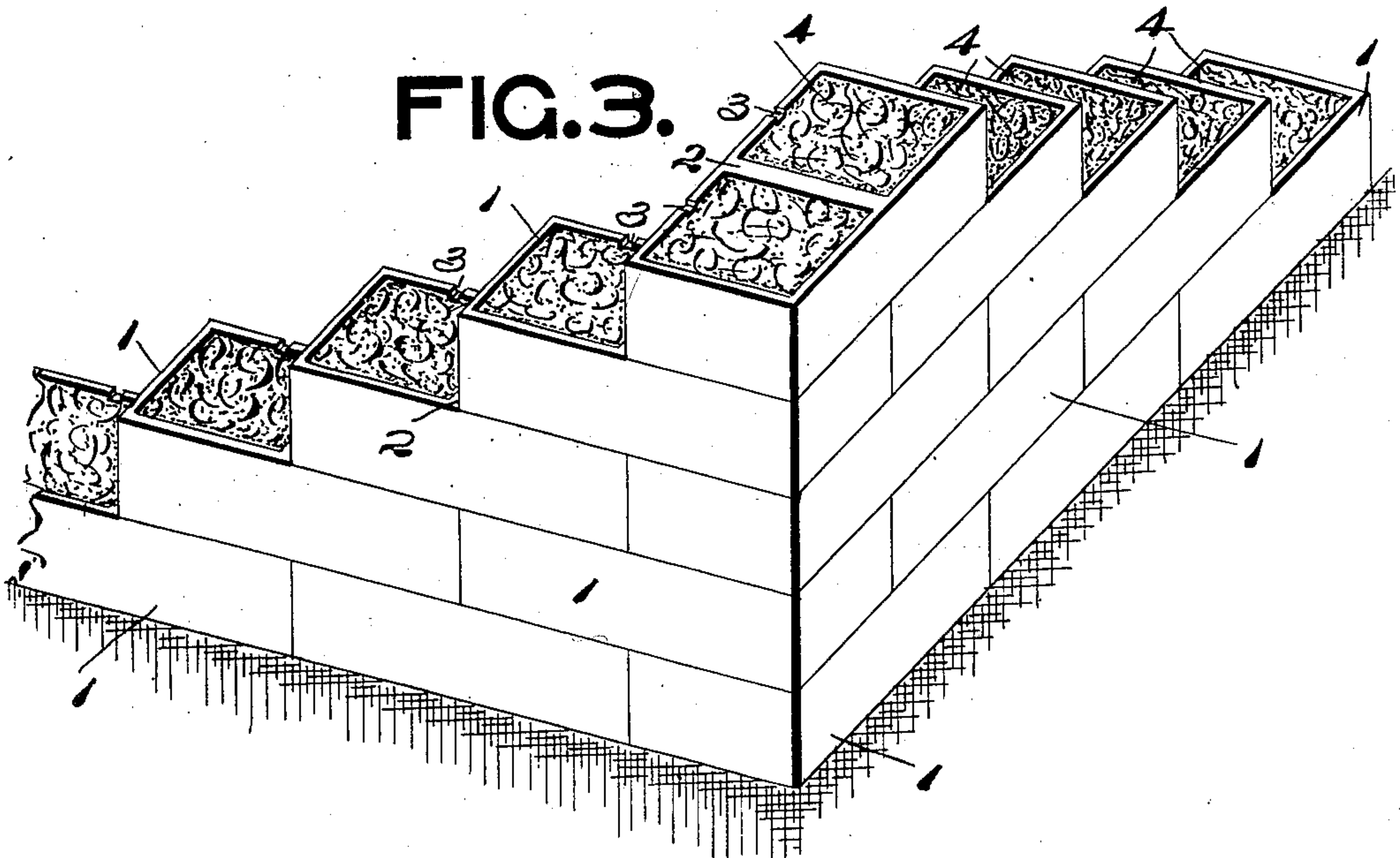
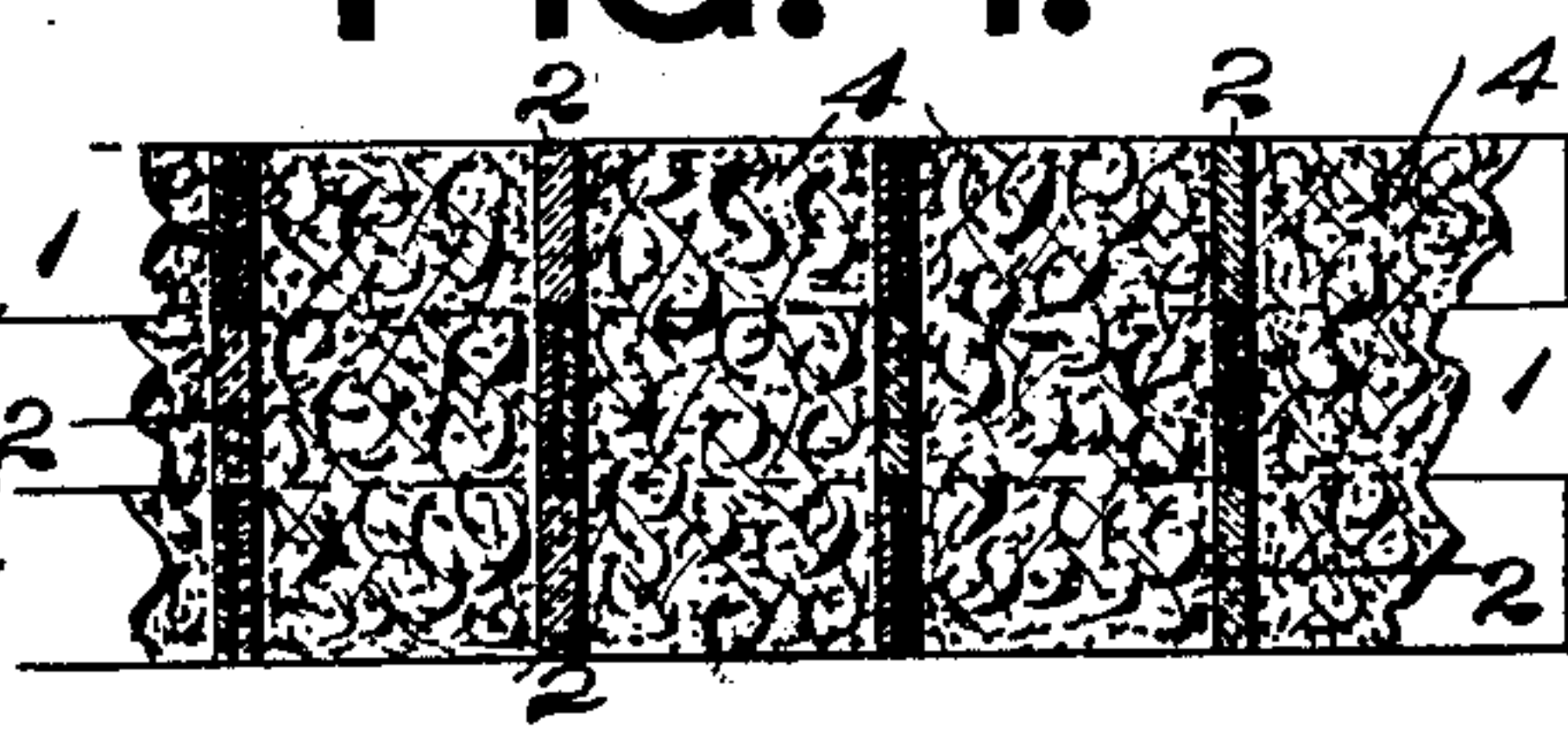


FIG. 4.

WITNESSES:

*Richard Moller*  
*J. H. Carl*



INVENTOR

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BY HIS ATTORNEY

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2 SHEETS—SHEET 2.

FIG. 5.

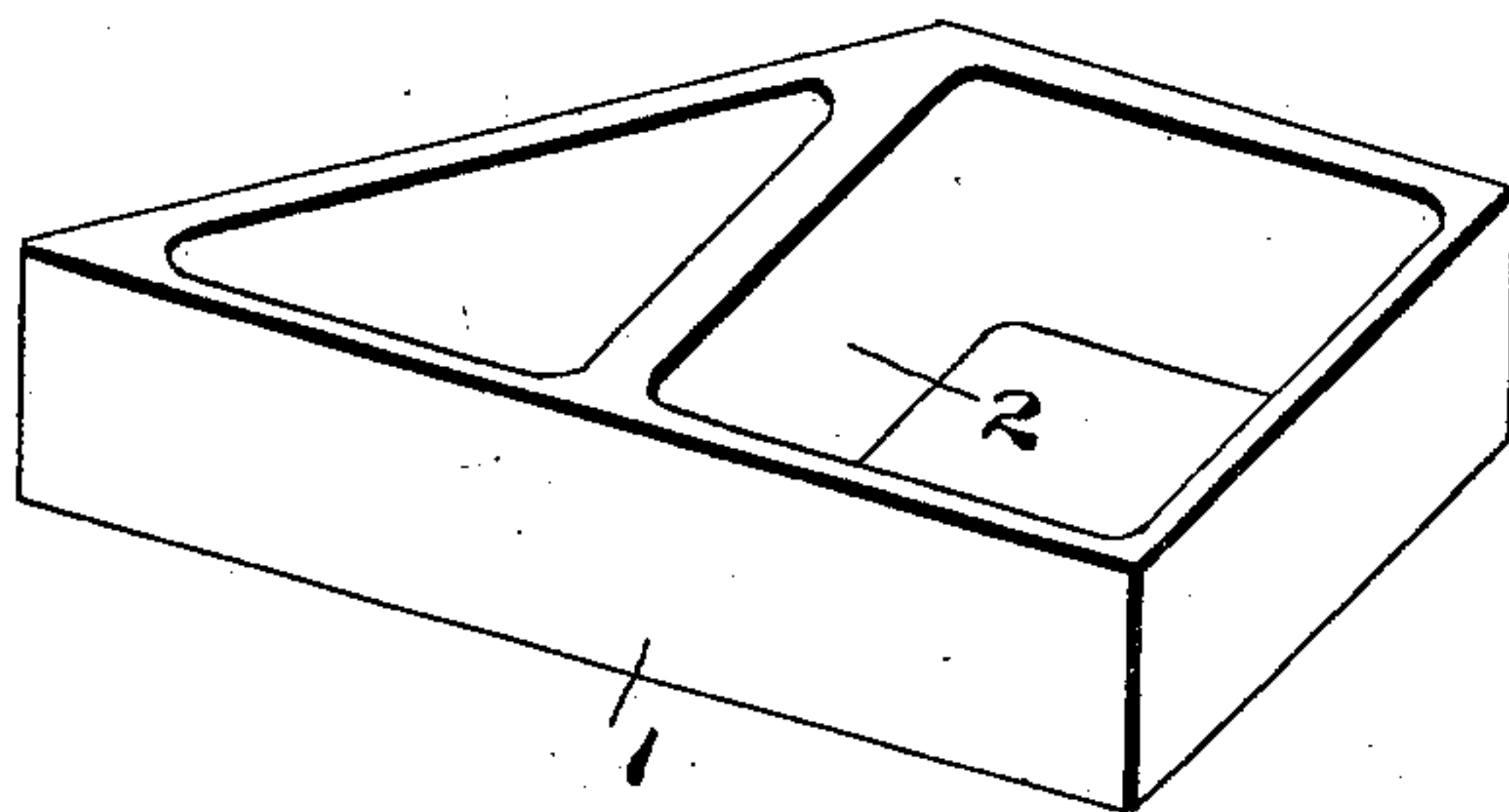
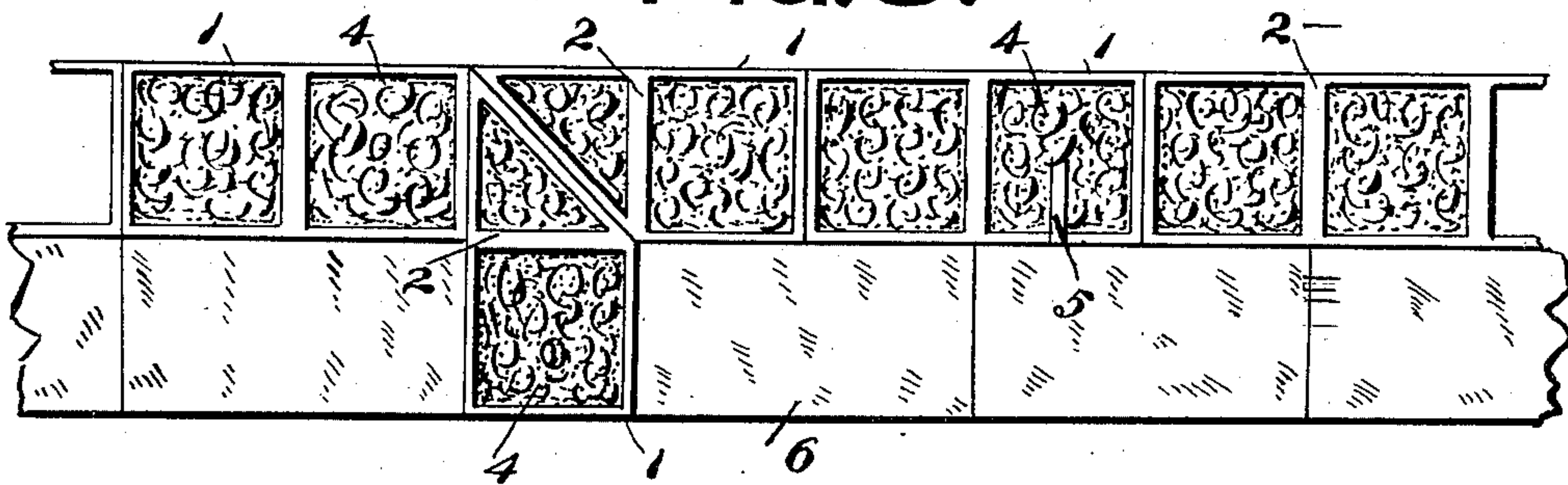


FIG. 6.



WITNESSES:

*Richard Mohler.*

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# UNITED STATES PATENT OFFICE.

PETER J. MCGUIRE, OF BLAIRSVILLE, PENNSYLVANIA.

## WALL STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 754,384, dated March 8, 1904.

Application filed December 6, 1902. Renewed October 20, 1903. Serial No. 177,818. (No model.)

*To all whom it may concern:*

Be it known that I, PETER J. MCGUIRE, a citizen of the United States, residing at Blairsville, in the county of Indiana and State of Pennsylvania, have invented a new and useful Improvement in Wall Structures, of which improvement the following is a specification.

This invention relates to improvements in wall structure, particularly to "veneer" and partition walls.

The object of my invention is to construct walls having glass facing or tiles as a substitute for enamel brick, pressed brick, porcelain tile, &c., in dwelling-houses and other structures.

My improved wall structure is practically water or moisture proof, is strong, and, barring injury, will remain intact for an indefinite period. Furthermore, the exposed surface or surfaces being composed wholly of glass may be easily cleaned.

In the accompanying drawings I have by various views illustrated my improved wall structure, in which—

Figure 1 is a perspective view of one of the tile employed in the wall structure. Fig. 2 is a plan view of a portion of the wall, showing the corner thereof. Fig. 3 is a perspective view of said wall. Fig. 4 is a side elevation of a portion of a wall, partly in section, showing the interior thereof. Fig. 5 is a perspective view of a modified form of tile adapted for use as a tie in walls of this character. Fig. 6 is a plan view of a wall, showing the manner in which the tie-brick is employed.

By further reference to said drawings for a detailed description of the tile and wall constructed therefrom, together with the manner in which the same is secured to a false backing in cases where said false wall is employed, it will be seen that said wall is constructed of a multiplicity of rectangular open-frame glass tiles 1, each having formed across its center a partition or web 2. In building the wall the tiles' ends are butted against one another and the edges fitted upon one another on the half-lap in straight-course work, so that the abutting ends will meet upon and be supported by the partition. These abutting and edge joints are preferably void of any in-

tervening cement or mortar; but the entire inner spaces formed between the partition and meeting ends are filled with concrete, cement, mortar, or other suitable material 4, thereby locking the tile in place and practically forming a solid mass or wall with a glass surface on one or both sides, as the case may be, the appearance being very attractive and practically moisture-proof and indestructible by atmospheric conditions. The breadth of the glass tile I prefer shall be half that of its length, so that in building corners the lap shall be equal to one-half of the tile and the openings register. It is also preferable that the central partition be double the thickness of the end or side of the tile to match the lap and openings.

In building veneer surface-walls where a false wall of wood or other material is employed as a backing-support it becomes necessary to employ suitable ties 5, in which case the ties are attached to said false wall at intervals, pass through offset 3 in the edge of the tile, and are buried in the concrete or filling 4 of the wall, thereby tying said wall to the false wall. In some instances it is advisable as an auxiliary wall-tie to employ at intervals the form of tile shown at Fig. 4, in which one end is cut off at an angle of forty-five degrees. In this case one of the said angular tile is laid crosswise in the straight course with one projected at right angles therefrom, so that it may be embedded in the false wall 6 and act as a tile to aid in supporting the wall.

It is to be understood that walls of circular or other forms may be made as well as those shown, the shape of the tile being made to suit such cases.

A wall constructed of glass tile with an interior filling as described will be very attractive in appearance and can be made at less cost in some instances than walls otherwise constructed of other material.

Having thus fully shown and described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A wall structure, comprehending a multiplicity of superposed open glass frames or tiles overlapping one another each of which is pro-



vided with a single cross web or partition of double the thickness of the tile ends so as to support the abutting ends of the tile at the lappings and cause the openings therein to register and form a plurality of parallel non-communicating spaces from top to bottom, a filling in each of said spaces to lock the tiles together and form a solid mass or wall, a false wall at the rear of said tile wall, and ties connecting said walls together.

2. A wall structure, comprehending a multiplicity of glass frames or tile arranged upon and overlapping one another so as to form a hollow space therein, a filling in said space to lock said tile together and form a solid mass or structure, and ties embedded in said filling and extending through said wall.

3. A wall structure, comprehending a multiplicity of glass frames or tile each having an inner cross web or partition and each arranged one upon the other with their openings registering, a filling in said openings to lock said tile together and form a solid mass or struc-

ture, and ties embedded in said filling and extending through said wall.

4. A wall structure, comprehending a multiplicity of glass frames or tile each having an inner cross web or partition and each arranged one upon and overlapping the other so as to form a hollow space therein some of which are arranged to cross-lap at intervals to project beyond the wall-surface at the rear, a false wall at the rear embedding said projecting tile and provided at intervals with ties extending through said tile into the hollow space therein, and a filling in said tile-space to lock the tile together and to said ties to form a solid mass or structure.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

PETER J. McGUIRE.

In presence of—

CHAS. H. MOORE,  
R. H. FREY.