

No. 692,544.

Patented Feb. 4, 1902.

J. L. RECORD.  
TILE WALL.

(Application filed Aug. 20, 1901.)

(No Model.)

2 Sheets—Sheet 1.

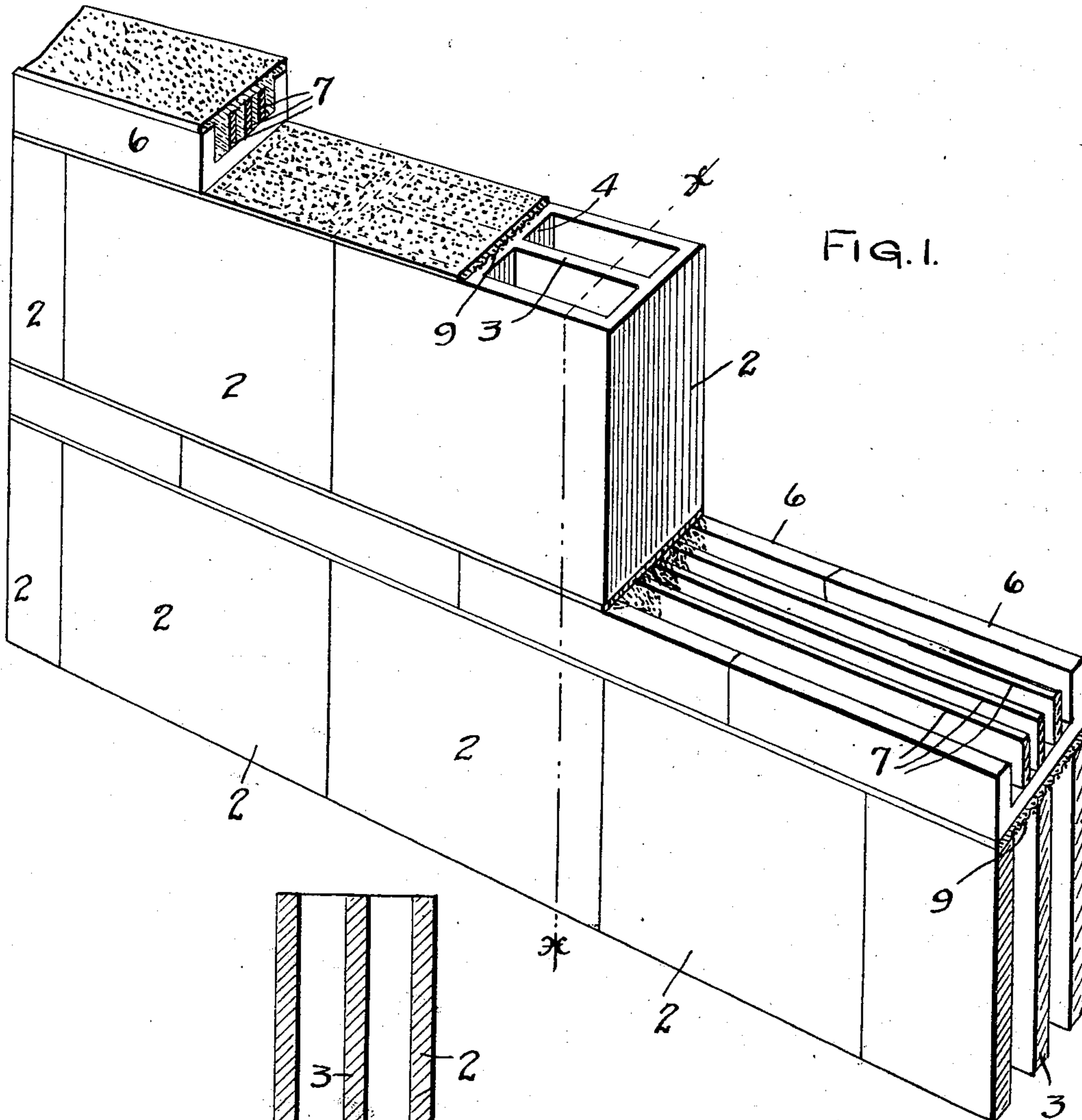


FIG. 1.

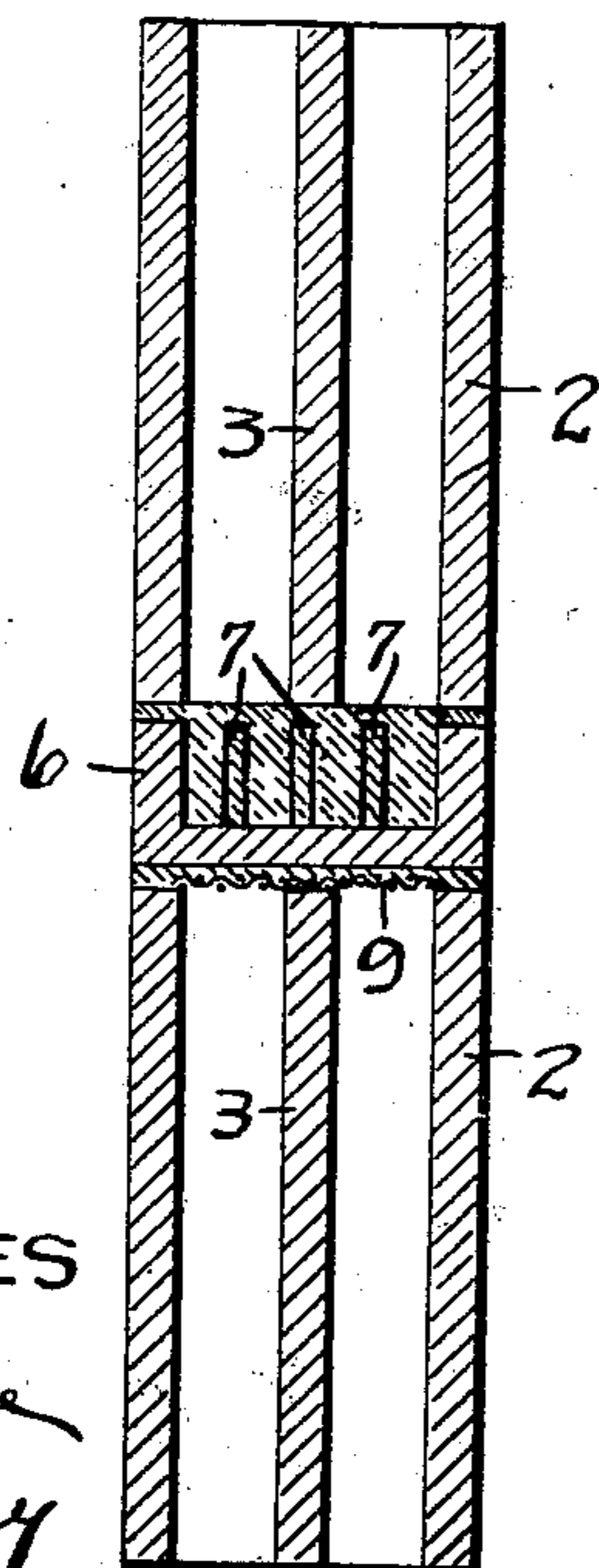


FIG. 2

WITNESSES  
*E. J. Stause*  
*M. E. Cooley*

INVENTOR  
JAMES L. RECORD  
BY *Paul Hawley*  
HIS ATTORNEYS

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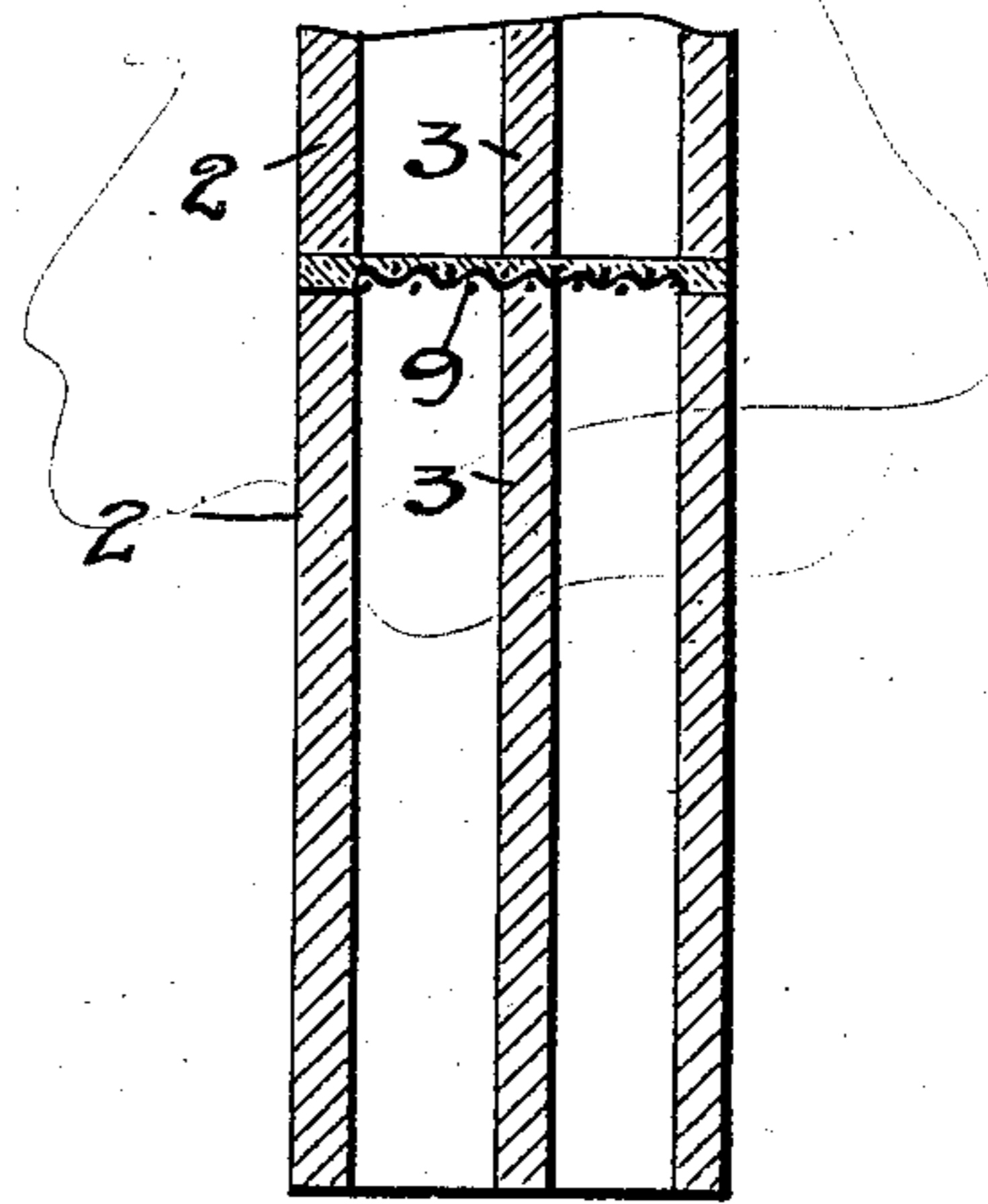
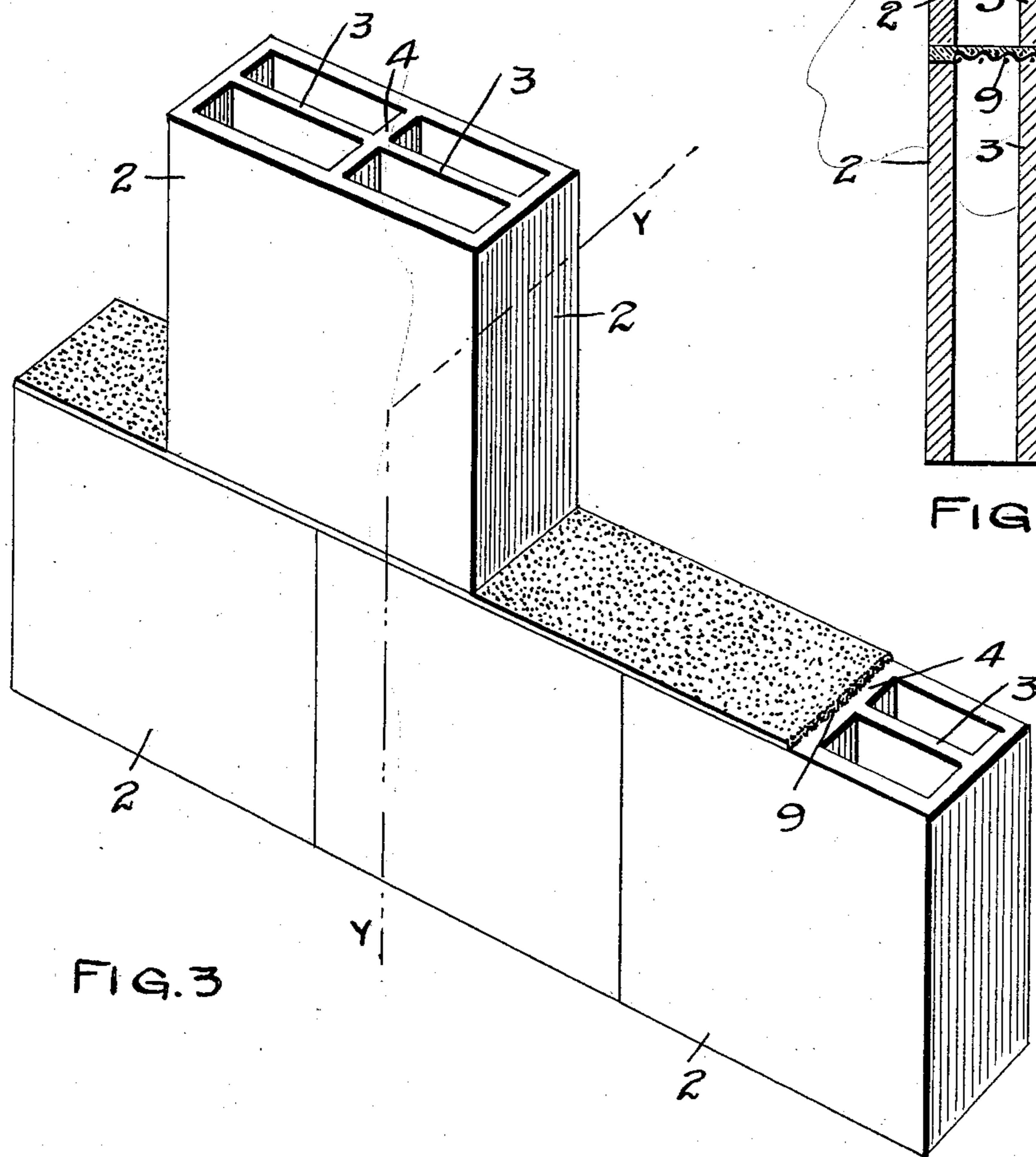
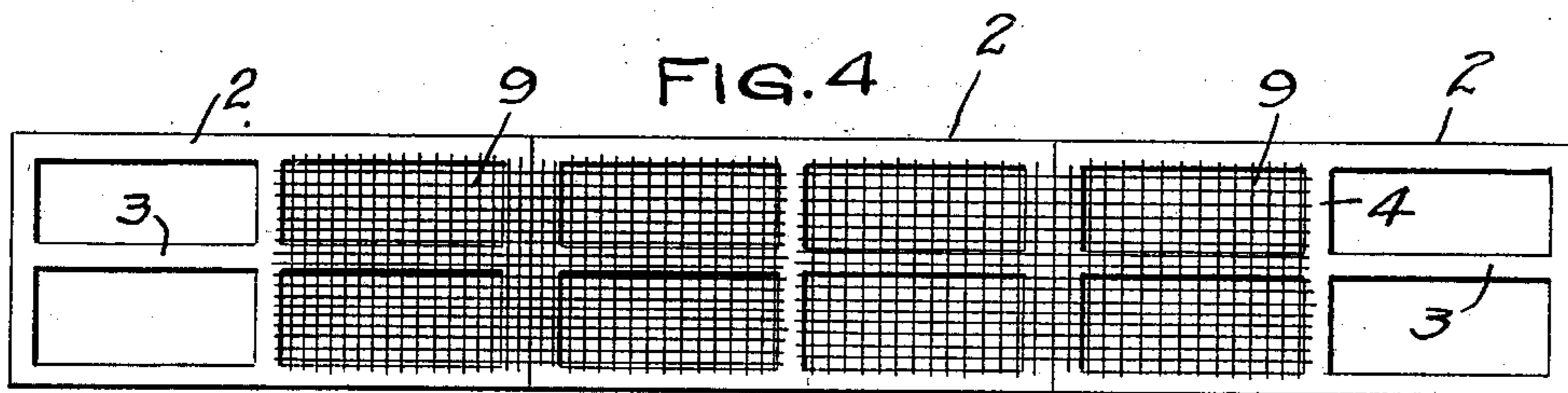


FIG. 5



WITNESSES

E. J. Stande  
W. E. Goolley

**INVENTOR**

JAMES L. RECORD

BY *Paul & Hawley*  
HIS ATTORNEYS

# UNITED STATES PATENT OFFICE.

JAMES L. RECORD, OF MINNEAPOLIS, MINNESOTA.

## TILE WALL.

**SPECIFICATION** forming part of Letters Patent No. 692,544, dated February 4, 1902.

Application filed August 20, 1901. Serial No. 72,654. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES L. RECORD, of Minneapolis, Hennepin county, Minnesota, have invented certain new and useful improvements in Tile Walls, of which the following is a specification.

This invention relates to improvements in walls made from hollow tiles; and the objects I have in view are to provide means for having a wide and full cement bed between the courses of tile.

As usually constructed walls that are made of hollow tiles have the tiles placed one upon another with cement between the joints. The larger and thicker tiles are usually made with cross walls or partitions, providing two or four openings through the tiles. When the tiles are placed one upon top of another and cement is placed between them, the cement must be lodged upon the narrow edges of the walls of the tiles that have been placed in position, and then the next course or row of tiles must be placed thereon with their edges embedded in the cement. The edges of the walls of the tiles are, however, so narrow in cross-section that only a small amount of cement can be placed thereon, and in putting the next tiles in position considerable of this cement is apt to be loosened and to drop down into the hollow tiles. The same difficulty is experienced where tiles of different shapes are used for the alternate courses. In this instance also it is not practicable in the usual mode of construction to provide a good cement bed for the row of tiles that are placed upon top of the hollow tiles. This mode of construction is particularly objectionable in the tile walls of grain or other storage-bins where there is a large amount of lateral pressure upon the walls, and particularly so in those tile walls in which bands or strips of metal are embedded in the walls in the process of construction. Where large circular tanks are constructed and these bands are placed in trough-shaped tiles forming part of the wall, it frequently occurs that in placing the bands in position some of the tiles in the row in which the bands are placed will be loosened, and as there is such a small amount of cement between these tiles and the hollow tiles below it is difficult or impossible to secure a proper cementing of the tiles in

position. If the tiles are not properly cemented together, the water gets between them and considerable damage to the tanks or walls results. I obviate the foregoing objections and materially improve and strengthen tile walls by providing strips of wire fabric or similar material, which are placed upon the tops of the hollow tiles and which hold the cement in position and prevent it from dropping down into the tiles while the upper tiles are being placed thereon. By this means I form a good bed of cement between the rows of tiles, and thereby secure a positive connection and a waterproof joint between them.

My invention consists generally in the constructions and combinations hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this invention, Figure 1 is a perspective view of a portion of a tile wall embodying my invention. Fig. 2 is a section on line *x x* of Fig. 1. Fig. 3 is a similar view showing a portion of a wall made entirely of hollow tiles. Fig. 4 is a plan view showing the manner of placing the wire netting or fabric upon the hollow tiles. Fig. 5 is a section on line *y y* of Fig. 3.

In the drawings, 2 represent hollow tiles of the ordinary form and construction. As here shown, these tiles are provided with the cross walls or partitions 3 and 4, although where smaller tiles are used these partitions or cross-walls may be omitted. In building walls or partitions from tiles of this construction it is customary to place the tiles on end and to make a cement joint between them. This joint is made by putting cement on top of the edges of the outer walls and on the edges of the cross-walls 3 and 4 and then placing the next tiles in position thereon. The edges of the walls are so narrow that only a small amount of cement can be placed thereon, and considerable of this is apt to be loosened and drop down into the hollows in the tiles when the next row of tiles is placed thereon. In some instances it is customary to use trough-shaped tiles 6 (see Figs. 1 and 2) for the alternate rows or courses. This is done particularly in building circular storage-tanks in order that strengthening bars or bands 7 may

be placed in such trough-shaped tiles. (See Figs. 1 and 2.) In this instance, also, in placing the trough-shaped tile upon the tops of the hollow tiles considerable of the cement on the edges of the hollow tiles is dislodged and drops down into the hollows in the tiles. Again, in placing the bands 7 in position in the trough-shaped tiles 6 it frequently occurs that some of the trough-shaped tiles will be moved and loosened and the cement between them and the edges of the walls of the tiles below will be displaced and knocked out of position, and it is then difficult or impossible to get a properly-cemented joint between such trough-shaped tiles 6 and the tiles upon which they rest.

I place upon the top of the hollow tiles strips or sheets of wire-netting or similar material 9. These strips may be of any length that can be conveniently used, and they extend, preferably, from one outer wall of the tiles to the other, but need not and do not usually extend across the edges of the outer walls. After these strips of netting are put in position the cement is spread across the full width of the tile, passing through the netting where the netting comes over the walls or partitions of the tiles, so as to come in contact with the edges of the walls and partitions. The cement does not drop down into the open spaces in the tiles. When the next row of tiles is put in place, whether such tiles be of trough shape, as shown in Figs. 1 and 2, or be hollow tiles, such as are shown in Figs. 3 and 5, a good cement bed is provided and a firm waterproof joint is made between the rows of tiles. In fact, the joint is even stronger and firmer with the netting in position than it would be without it, even if none of the cement became dislodged from the edges of the walls or partitions of the hollow tiles. If the upper tiles become displaced, they may be moved back into position if the cement has not become fully set, and the rigidity and tightness of the joint will not be affected.

While I have shown and described wire net-

ting or fabric as the material that I prefer to use for this purpose, I do not confine myself thereto, as any other thin open material that will hold the cement in position may be substituted for the wire netting without departing from my invention.

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

1. A tile wall formed of rows or courses of hollow tiles and provided with interposed strips or sheets of thin open material extending over the openings in said tiles and suitable cement in which said material is embedded, substantially as described.

2. A wall formed of rows or courses of hollow tiles provided with interposed strips of thin open material arranged over the openings in said tiles, substantially as described.

3. A wall provided with rows or courses of hollow tiles having strips of thin open material placed over the openings in said tiles, suitable cement placed upon the edges of the walls of the tiles and upon said open material, and other tiles arranged thereon, substantially as described.

4. The combination, with hollow tiles arranged upon end, strips of thin open material placed upon and covering the openings in said tiles, a cement bed formed upon the edges of the walls of said tiles and upon said open material, and other tiles arranged upon said cement bed, substantially as described.

5. The combination, with the hollow tiles, of the strips of wire-netting placed over the open ends of the tiles, and suitable cement in which said netting is embedded, substantially as described.

In testimony whereof I have hereunto set my hand this 16th day of August, 1901, at Minneapolis, Minnesota.

JAMES L. RECORD.

In presence of—

A. C. PAUL,

M. E. GOOLEY.