

No. 664,705.

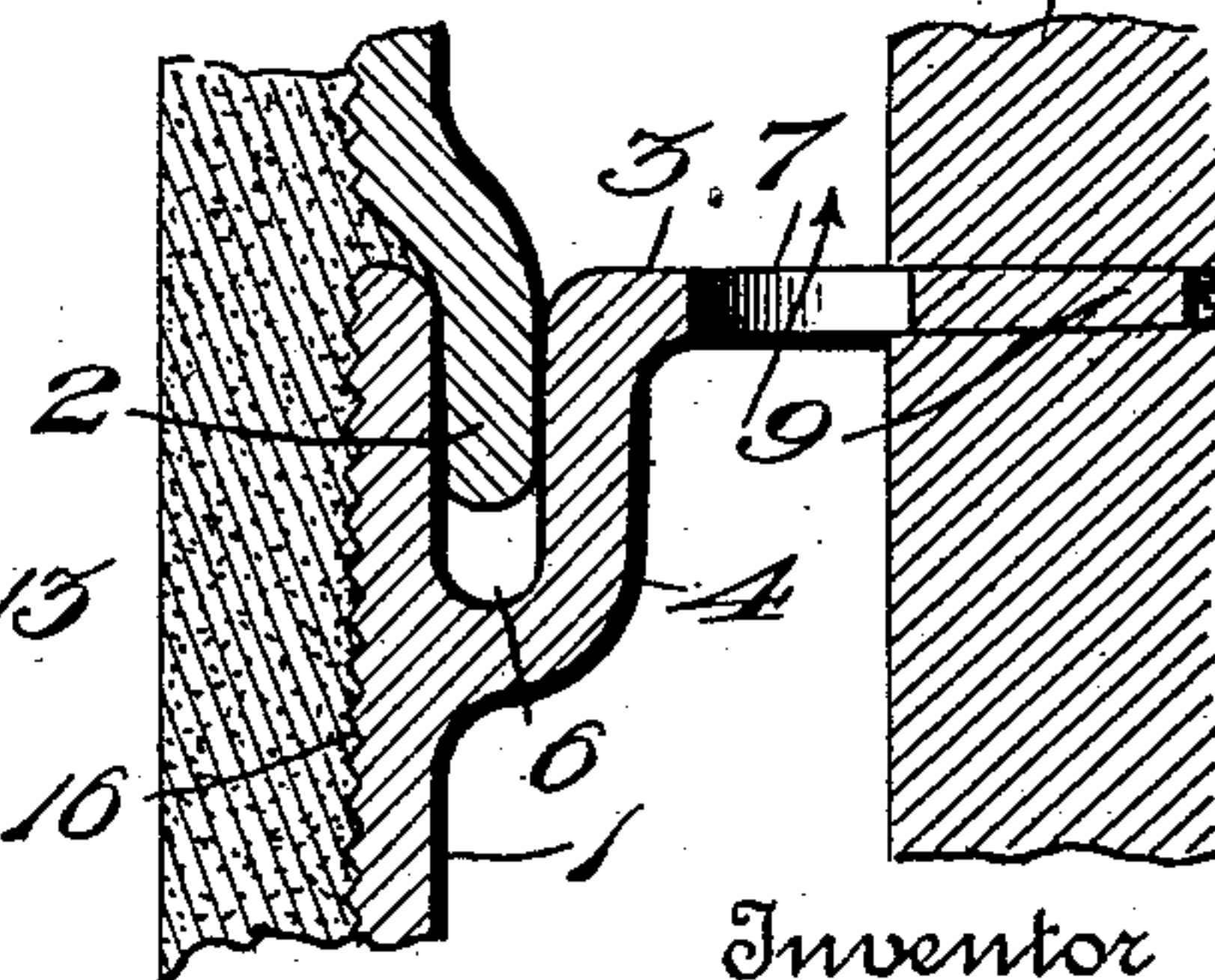
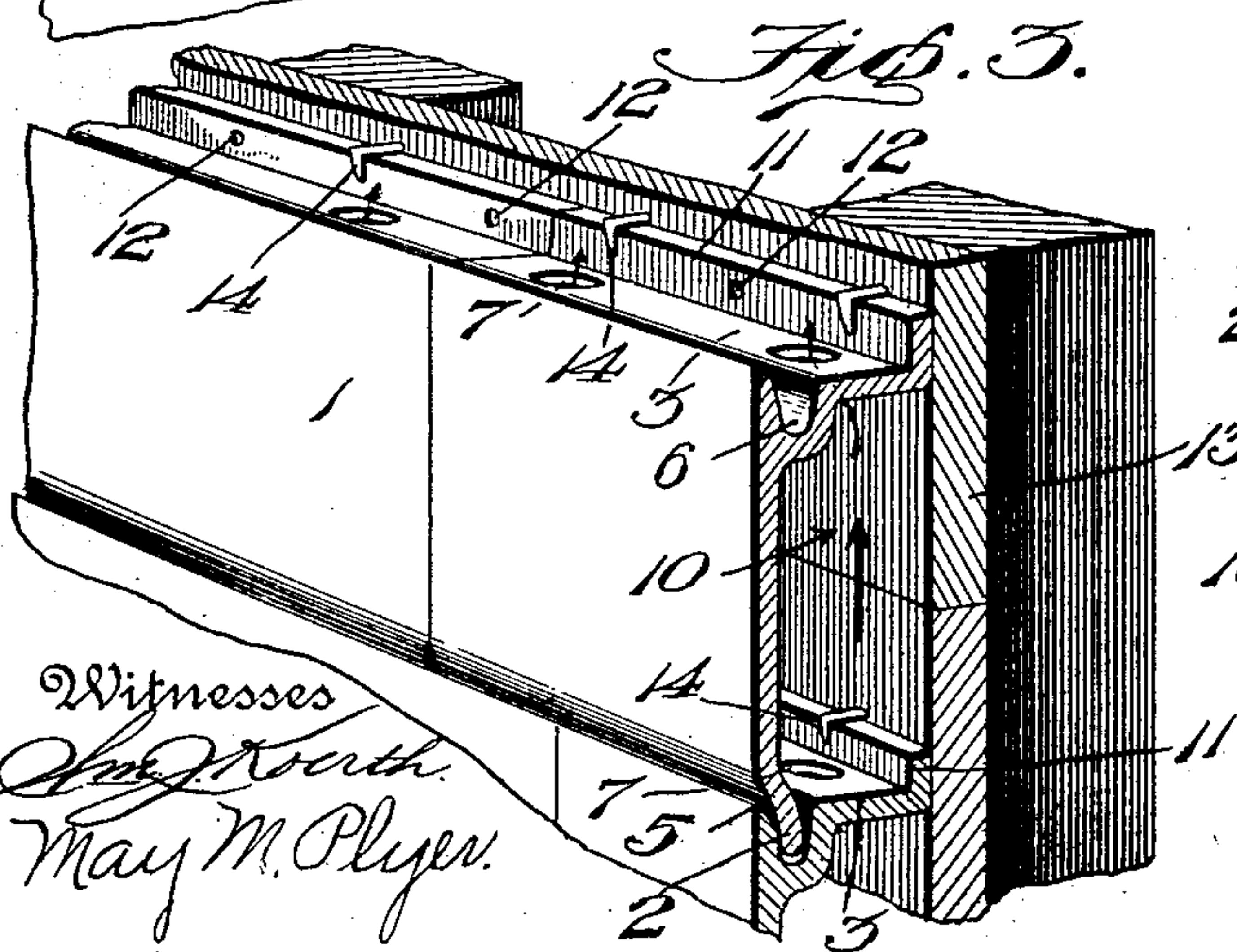
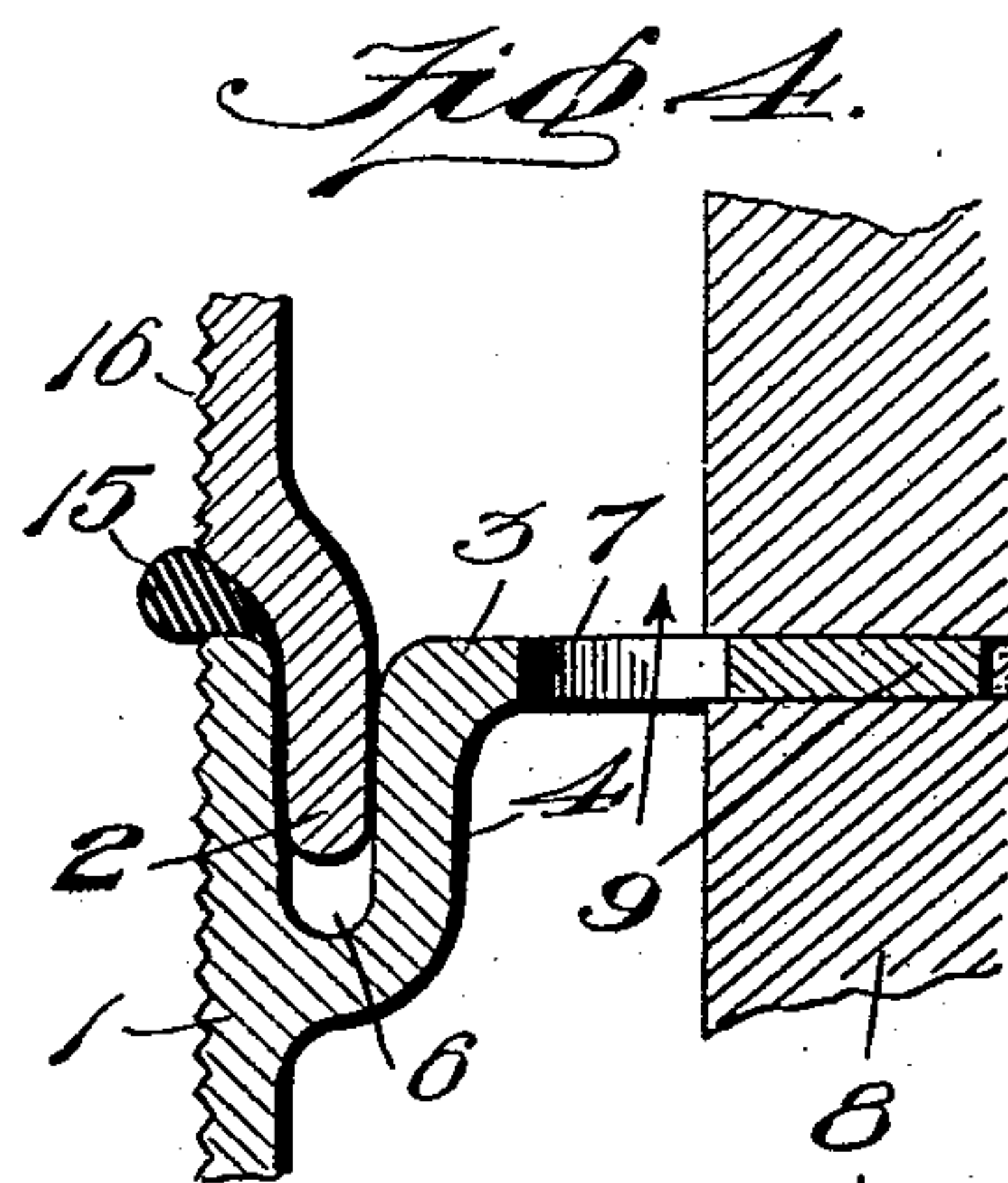
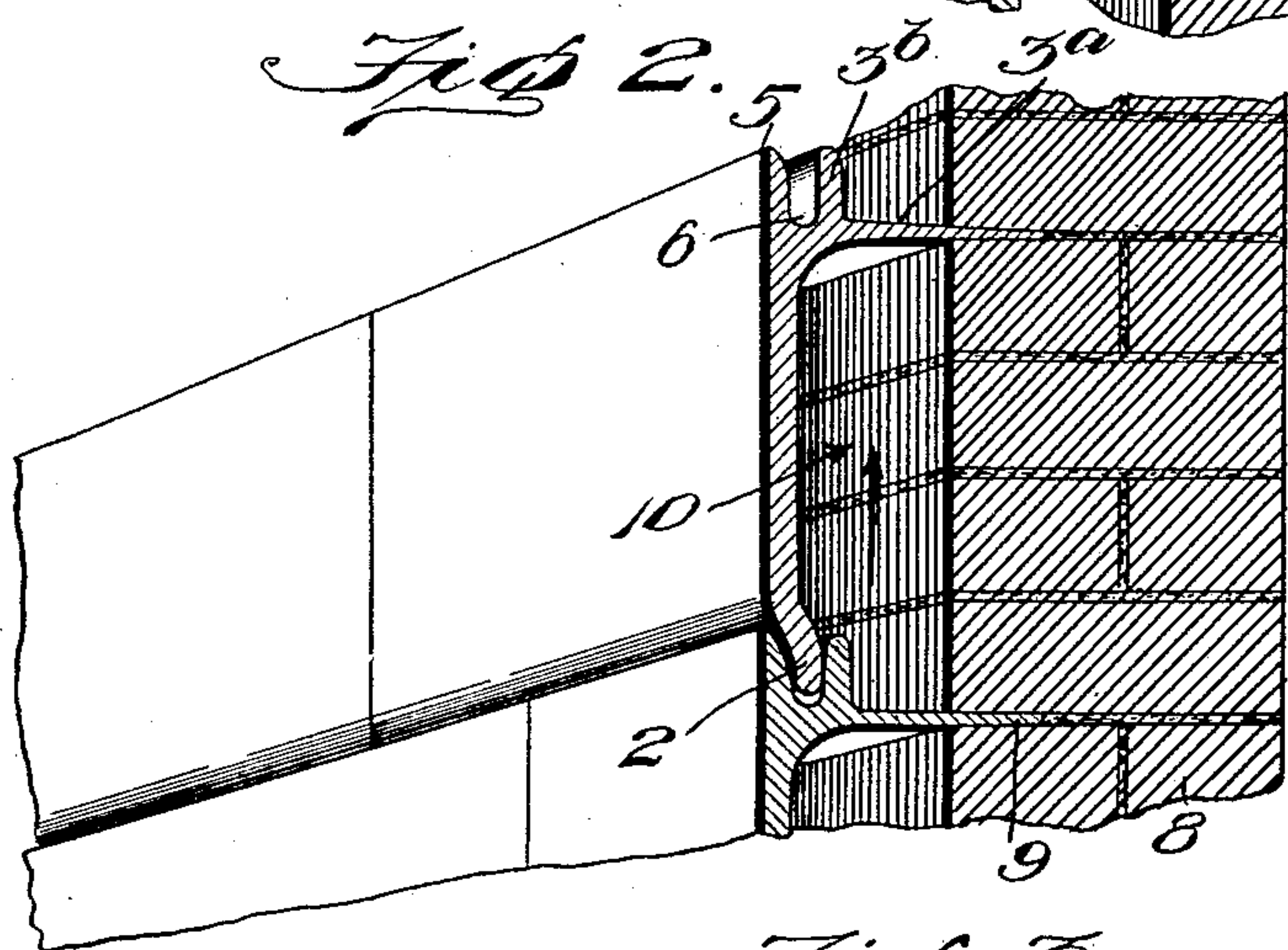
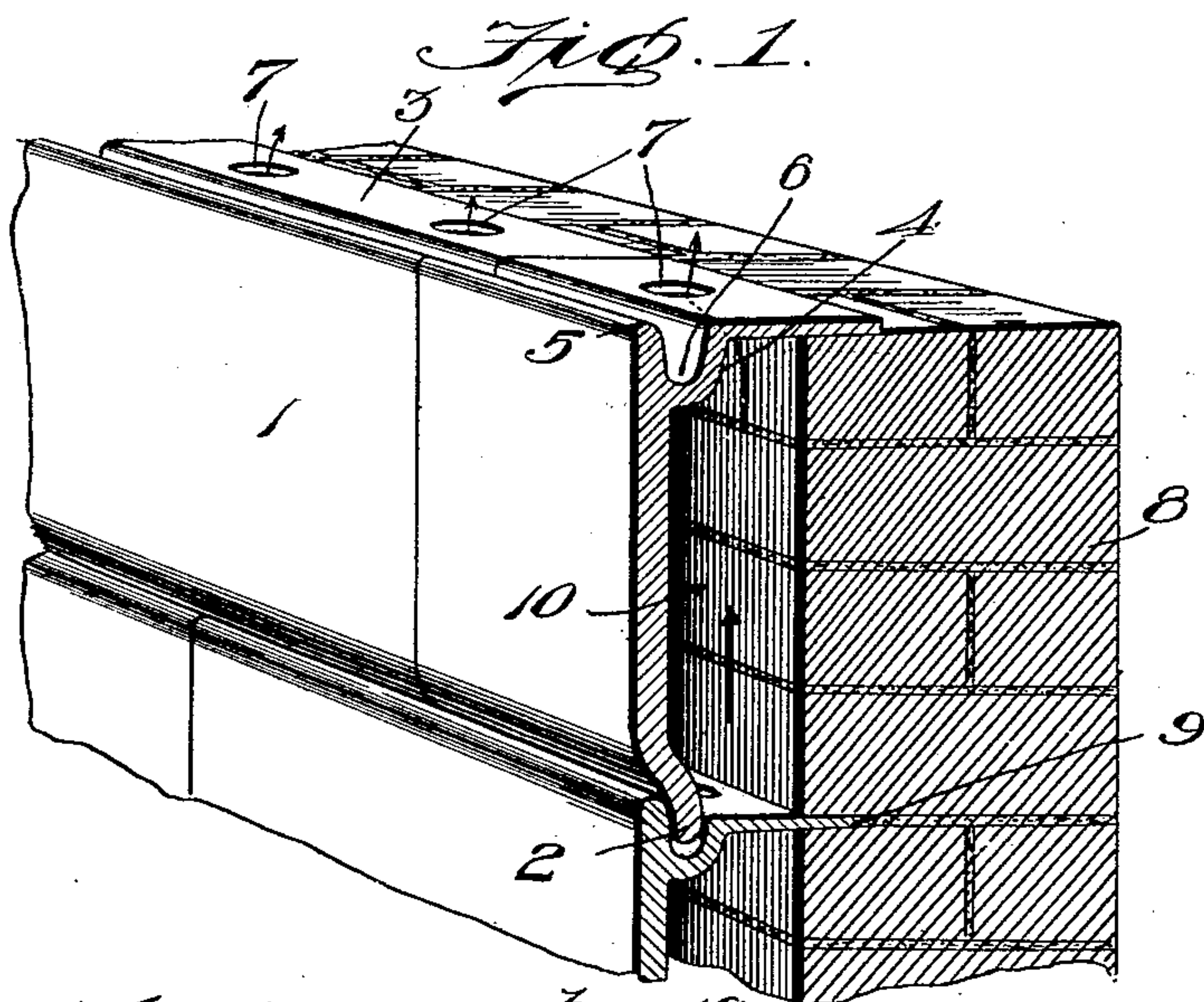
Patented Dec. 25, 1900.

D. W. ANDERSON.

WALL TILE FOR HEATING AND VENTILATING.

(Application filed Jan. 17, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

DAVID WILEY ANDERSON, OF RICHMOND, VIRGINIA.

WALL-TILE FOR HEATING AND VENTILATING.

SPECIFICATION forming part of Letters Patent No. 664,705, dated December 25, 1900.

Application filed January 17, 1900. Serial No. 1,787. (No model.)

To all whom it may concern:

Be it known that I, DAVID WILEY ANDERSON, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Wall-Tiles for Heating and Ventilating; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to heating and ventilating tiles for buildings, the primary object being to provide a wall-facing composed of tiles so constructed as to be adapted to be secured to a wall at a sufficient distance therefrom to form conduits between the facing and wall for the passage of either hot or cold air for heating or ventilating a building or for preventing damage by dampness.

A further object of the invention is to provide a facing consisting of tiles having projecting securing-flanges.

Further objects are to provide facing-tiles with means for securing them to either a brick or frame wall and to permit the adjustment of the tiles vertically to facilitate their application to a wall.

The characteristic features of the invention and its details of construction will be fully described hereinafter and defined in the appended claims, in connection with the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a view in perspective of a portion of a brick wall with sections of two rows of tiles embodying the invention secured thereto. Fig. 2 is a similar view showing a slightly-modified construction of the tiles. Fig. 3 is a similar view showing an embodiment of the invention adapted to be applied to the sheathing of a frame structure; and Fig. 4 is an edge view of a further modification, illustrating the vertical adjustability of the tiles.

Referring to Fig. 1, the reference-numeral 1 designates the body of the tile, having its lower edge curved inwardly to form a transverse tongue 2.

3 designates a horizontal flange projecting from the inner side of the tile, near the upper edge thereof, and having its outer side 4, which connects with the body of the tile,

curved downward to form, in connection with the upper edge 5 of the tile, a U-shaped horizontal groove 6 to receive the tongue 2 of the next adjacent tile.

The flange 3 of each of the tiles is formed with an opening 7 to provide for the circulation of air between the wall 8 and the tile facing.

The inner sides 9 of the flanges 3 are secured by inserting them between adjacent layers of bricks or other masonry, as clearly shown in Fig. 1, a sufficient distance to firmly hold them in place and at the same time to leave an air-space 10 between each of the tiles and the surface of the wall. Thus I provide for a free circulation of air both vertically and horizontally and effectually protect the wall from dampness.

The construction shown in Fig. 2 differs from that of Fig. 1 only in the form of the flanges. In this instance the flange 3^a projects horizontally below the horizontal plane of the upper edge of the tile and is provided with a vertical flange 3^b, which forms one side of the horizontal groove 6^a.

In Fig. 3 the inner edge of the flange 3 instead of being secured between the layers of bricks, as in Figs. 1 and 2, is turned upward to form a vertical cleat 11, formed with nail-holes 12 and adapted to be secured against the sheathing 13 of a frame building, the securing-nails 14 being preferably clenched over the upper edges of the cleats 11, as clearly illustrated in Fig. 3.

In Fig. 4 the tongue 2 is wider than that shown in Fig. 1 and the groove 6 is correspondingly deeper to permit of the vertical adjustment of the tiles to compensate for variations in the thickness of the layers of bricks between which the flanges 3 are secured. It will be obvious that it is only necessary for the tongues 2 to project into the grooves 6 a sufficient distance to insure a firm interlocking engagement, and the relative adjustability of the tiles is a matter of importance in fitting them upon a wall. The spaces between the contiguous edges of the tiles formed by the adjustment of the tiles away from each other may be pointed up or filled in, as shown at 15 in Fig. 4, to represent stonework or block-tilework without plastering.

In Fig. 4 I have also shown the outer sur-

face 16 of the tile facing roughened to receive plaster, and the spaces between the edges of the tiles cooperate with such roughened surface to aid in supporting and anchoring the plaster; as shown at the lower portion of Fig. 4.

The construction of the tiles as above described is such that they may be reversed or turned, so that the tongues will be uppermost and the grooves will be at the lower edge of the tile.

The construction of my improved tile facing and its position with relation to the wall to which attached are such that the air-spaces 10 may be readily utilized as conduits for either hot or cold air, the openings 7 in the tile-flanges permitting of the free circulation of hot or cold air, as indicated by arrows in the drawings, from any suitable source of supply located in the building or adjacent thereto, and it will be apparent that by means of suitable registers located in the tile facing the hot or cold air can be supplied to rooms or apartments of the building.

By connecting a supply-pipe from a furnace or other heater to the space 10 of the tile facing in one of the lower compartments of a building hot air can be readily conveyed to all parts of the building, the circulation through the spaces 10 and the openings 7 serving not only to heat the facing and walls, but to conduct the heat through registers to the rooms.

A further important advantage of the construction of the tile facing is that it provides a convenient space between the wall and tiles for the location of gas and water pipes, and the pipes are thus thoroughly protected from freezing when heat is applied to the wall.

I would have it understood that I reserve the right to make such further modifications in the details of the invention as may properly fall within the scope of the following claims.

I claim—

1. A facing for walls, comprising tiles each formed at one edge with an inwardly-extending tongue, and at its opposite edge with a

horizontal groove, and a securing-flange projecting from the inner wall of said groove and adapted to be projected between adjacent layers of masonry to support the tile independently of supplemental fastening means.

2. A facing for walls comprising tiles each formed at one edge with an inwardly-extending tongue, and at its opposite edge with a horizontal groove and a horizontal securing-flange formed with an opening for the circulation of air.

3. The combination with a wall, of a tile facing comprising tiles each having a horizontally-projecting flange formed with an air-opening, and means for securing said flange to the wall so that an air-space will be left between the tiles and the wall.

4. The combination with a masonry wall of a facing consisting of tiles, each having an inwardly-extending tongue at one edge, and a groove at its opposite edge, and a securing-flange projected from the inner wall of said groove, and secured between the layers of masonry.

5. A wall-facing comprising vertically-adjustable interlocking tiles, each having on its inner face a horizontally-projecting securing-flange adapted to be projected and secured between layers of masonry.

6. A wall-facing comprising interlocking vertically-adjustable tiles, each having an inwardly-extending tongue at one edge, a groove at its opposite edge, and a securing-flange projecting from the inner wall of said groove, and adapted to be secured between layers of masonry.

7. A wall-facing comprising interlocking tiles formed with horizontal securing-flanges formed with air-openings, and secured to the wall at a distance therefrom to leave a space for the circulation of air.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID WILEY ANDERSON.

Witnesses:

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C. L. DENOON.