

D. W. LLOYD.

METHOD OF MANUFACTURING BUILDING BLOCKS.

APPLICATION FILED NOV. 10, 1904.

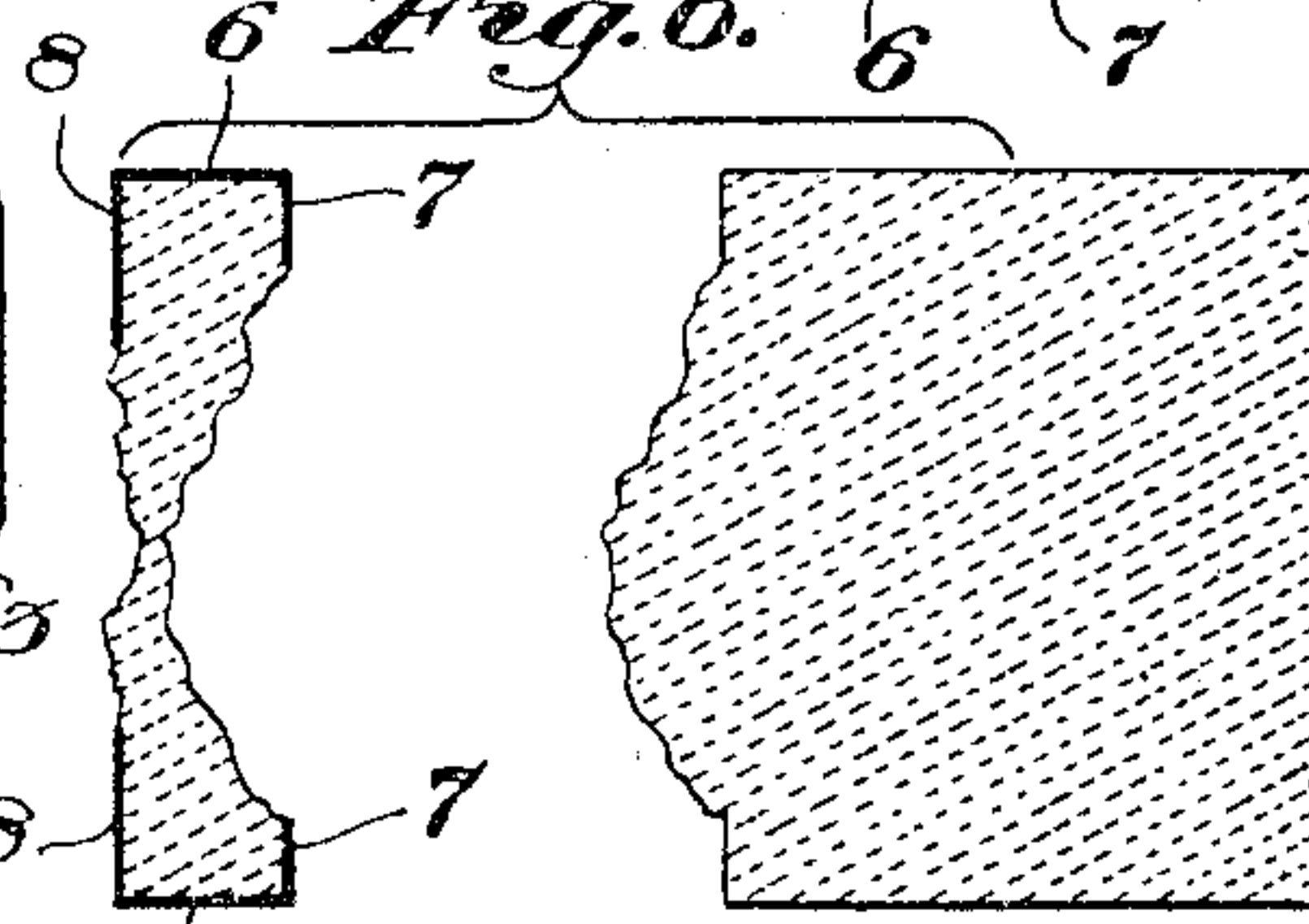
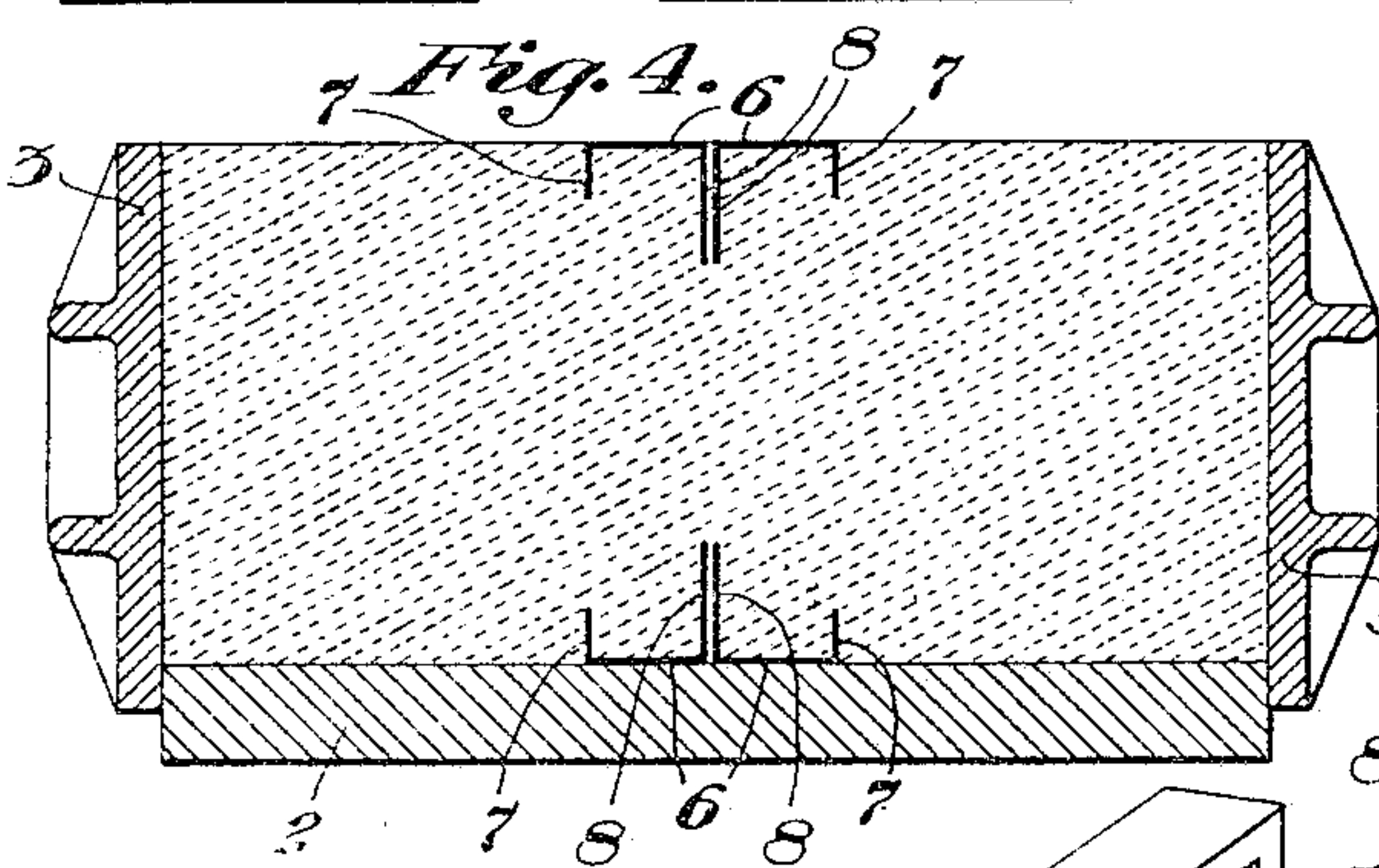
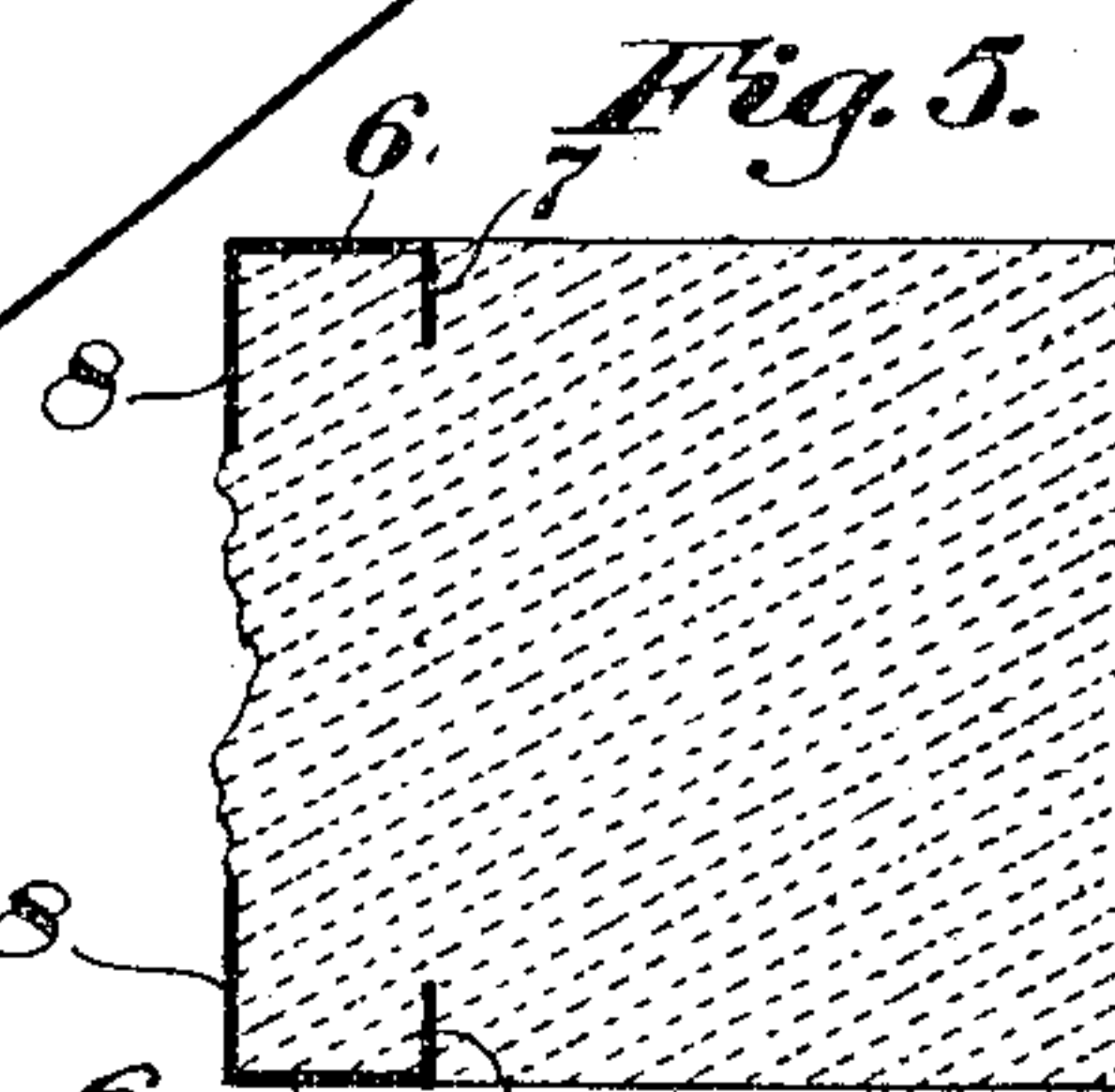
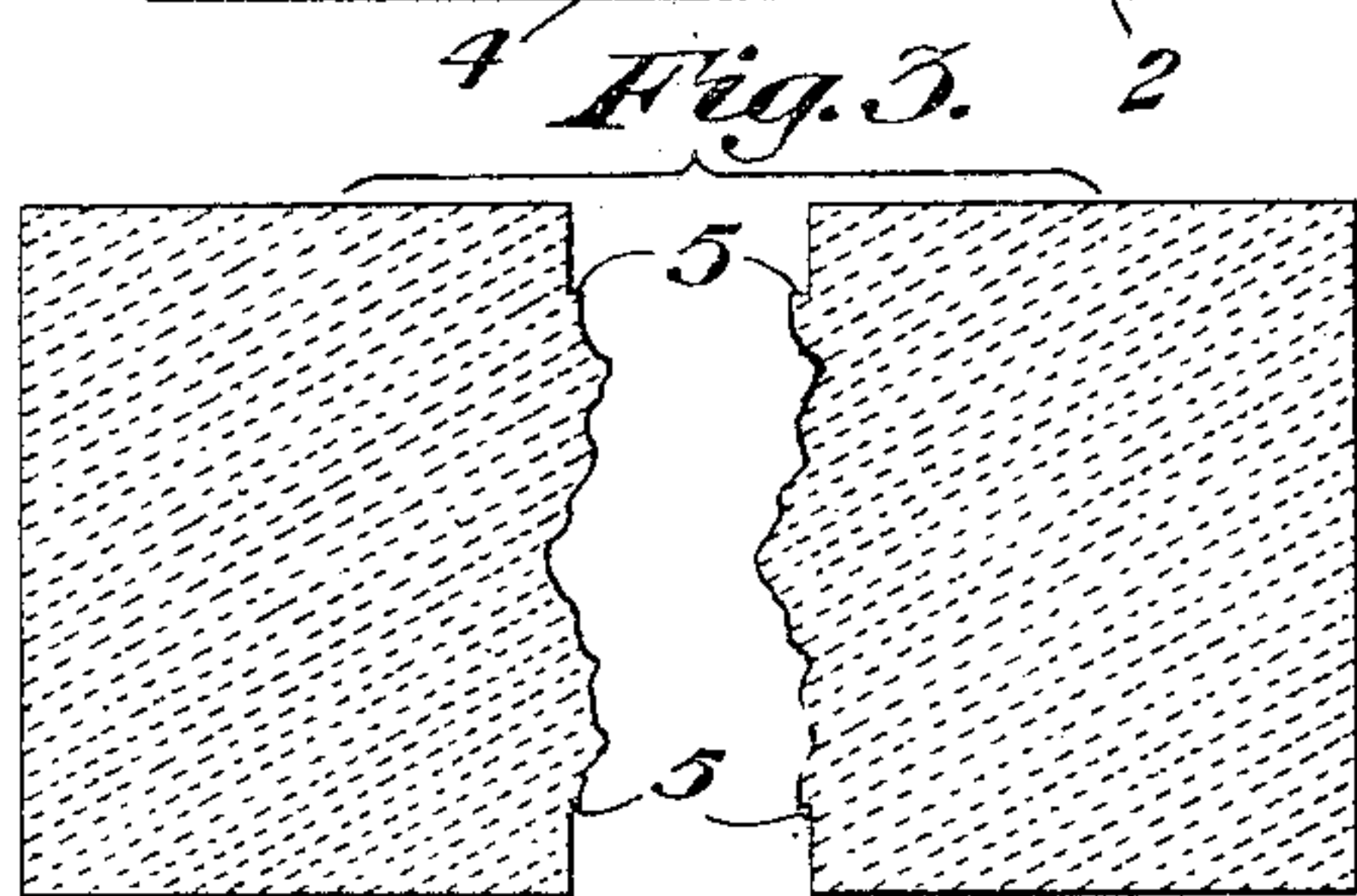
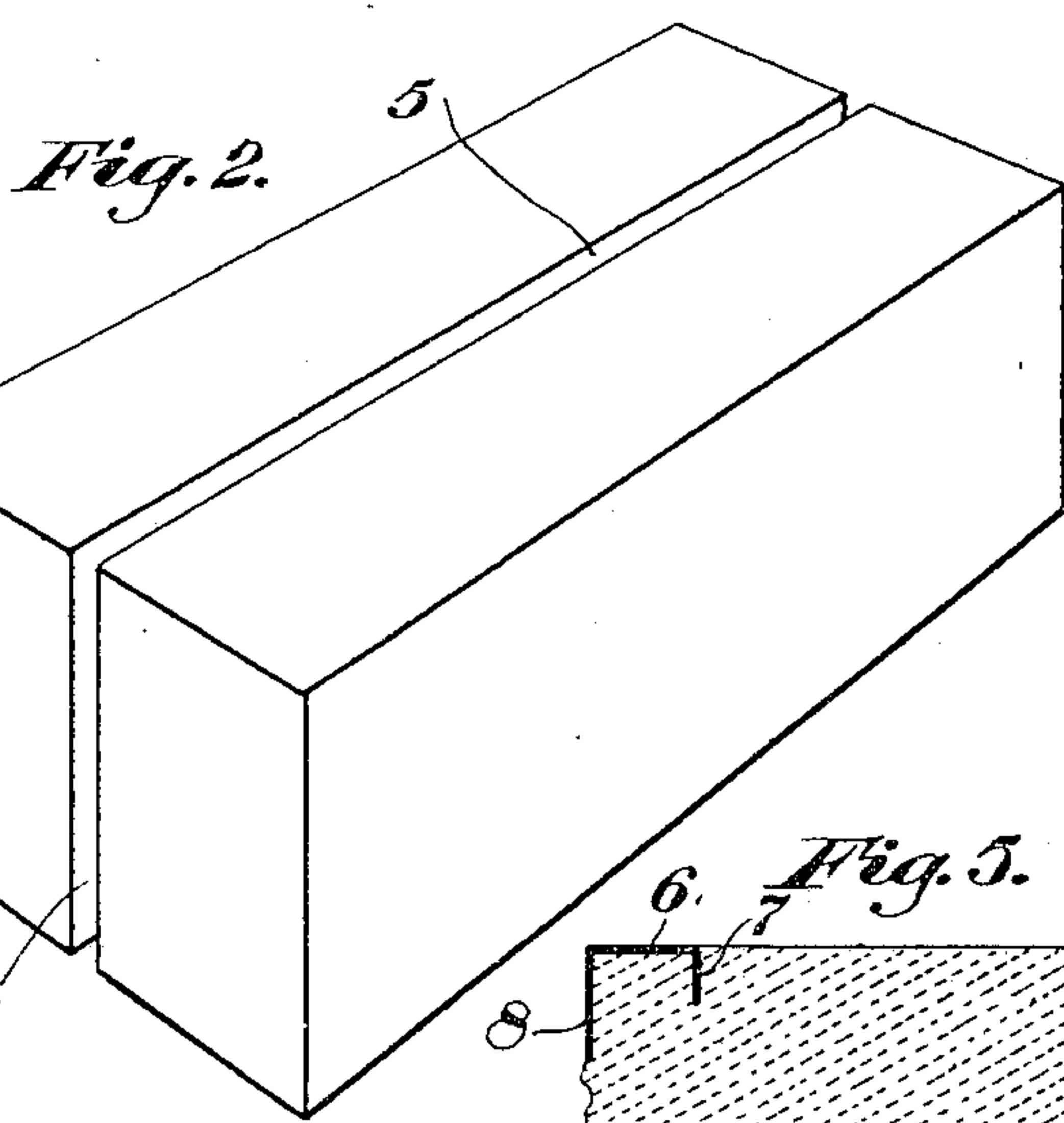
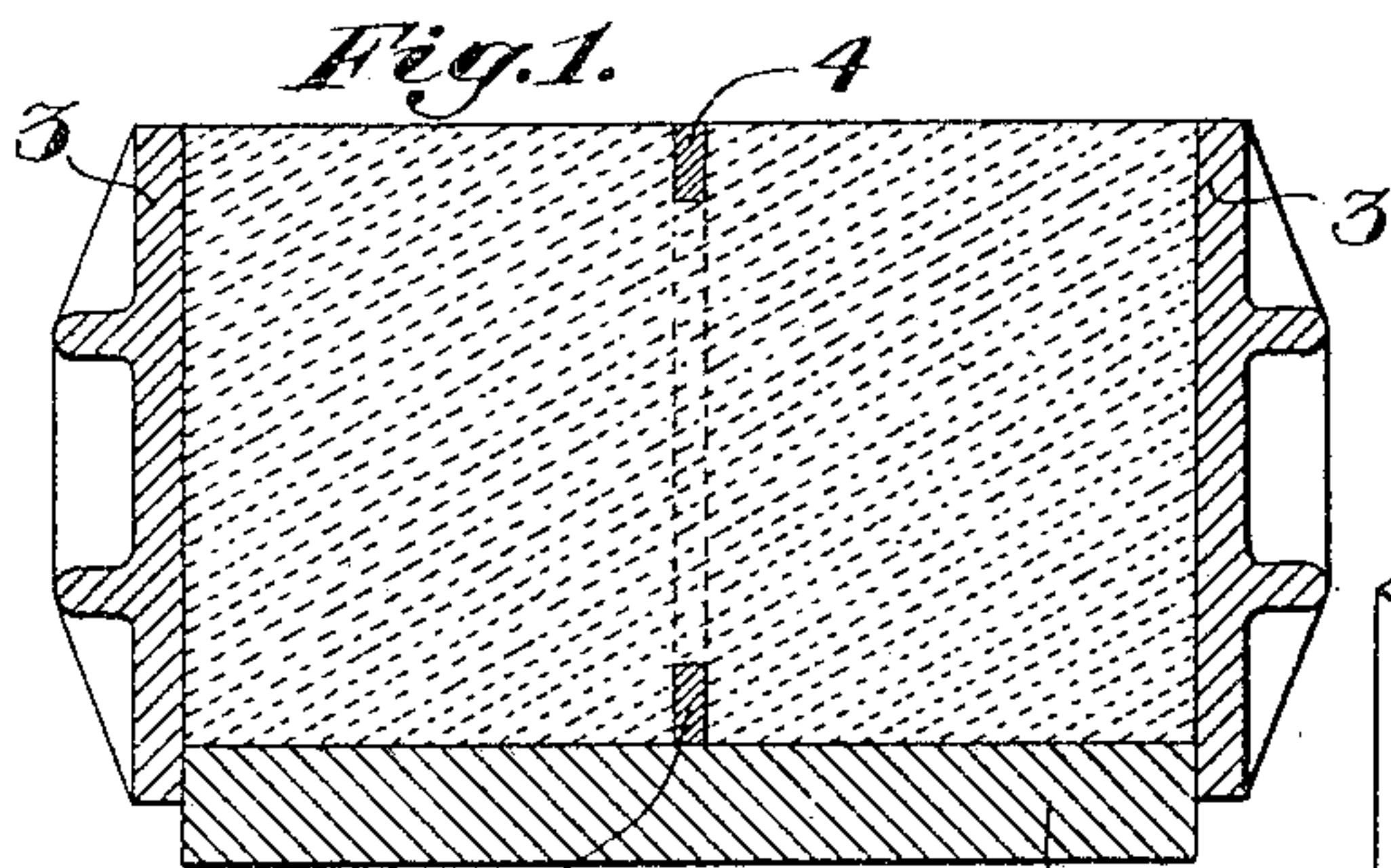


Fig. 7.

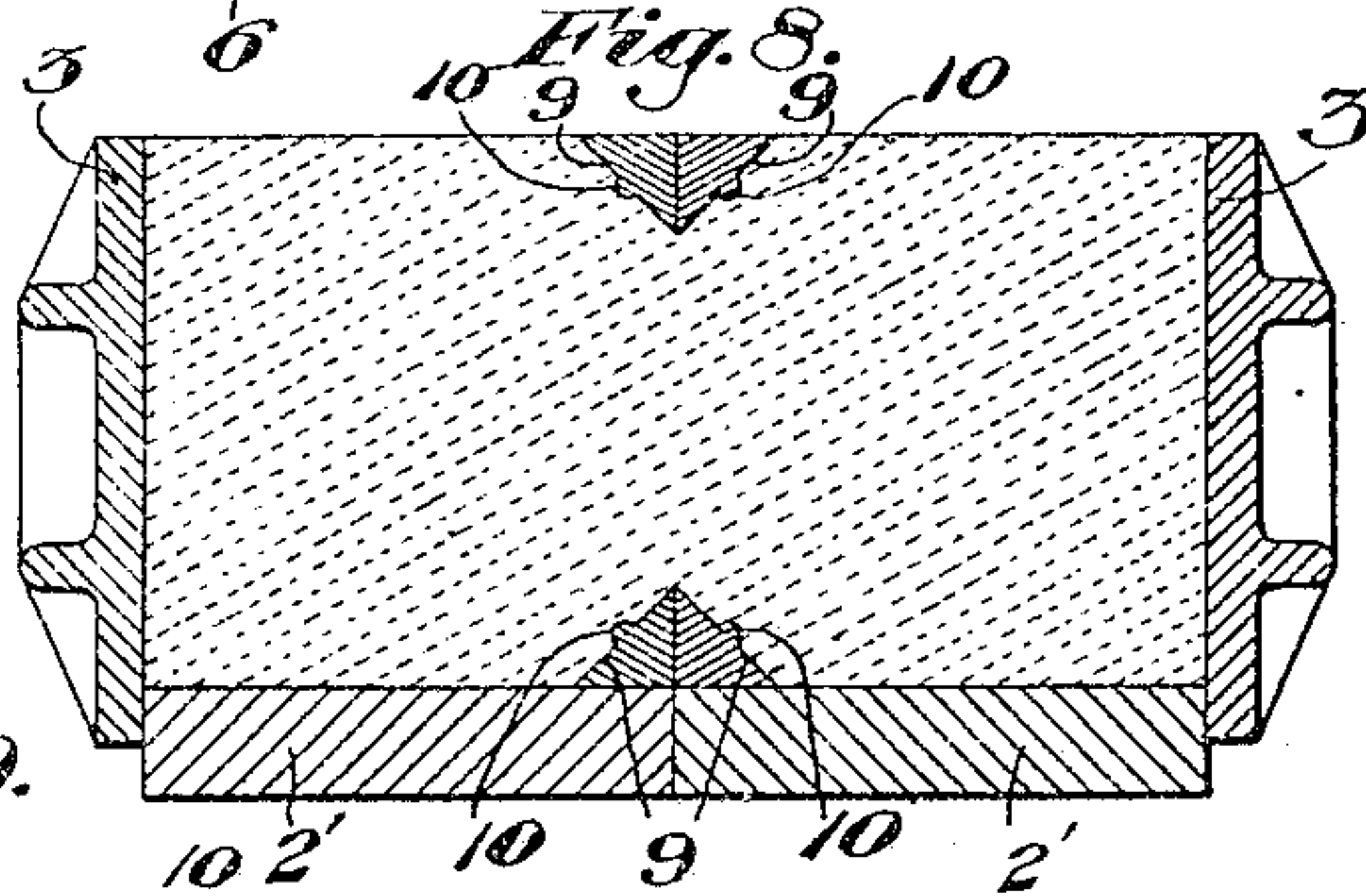
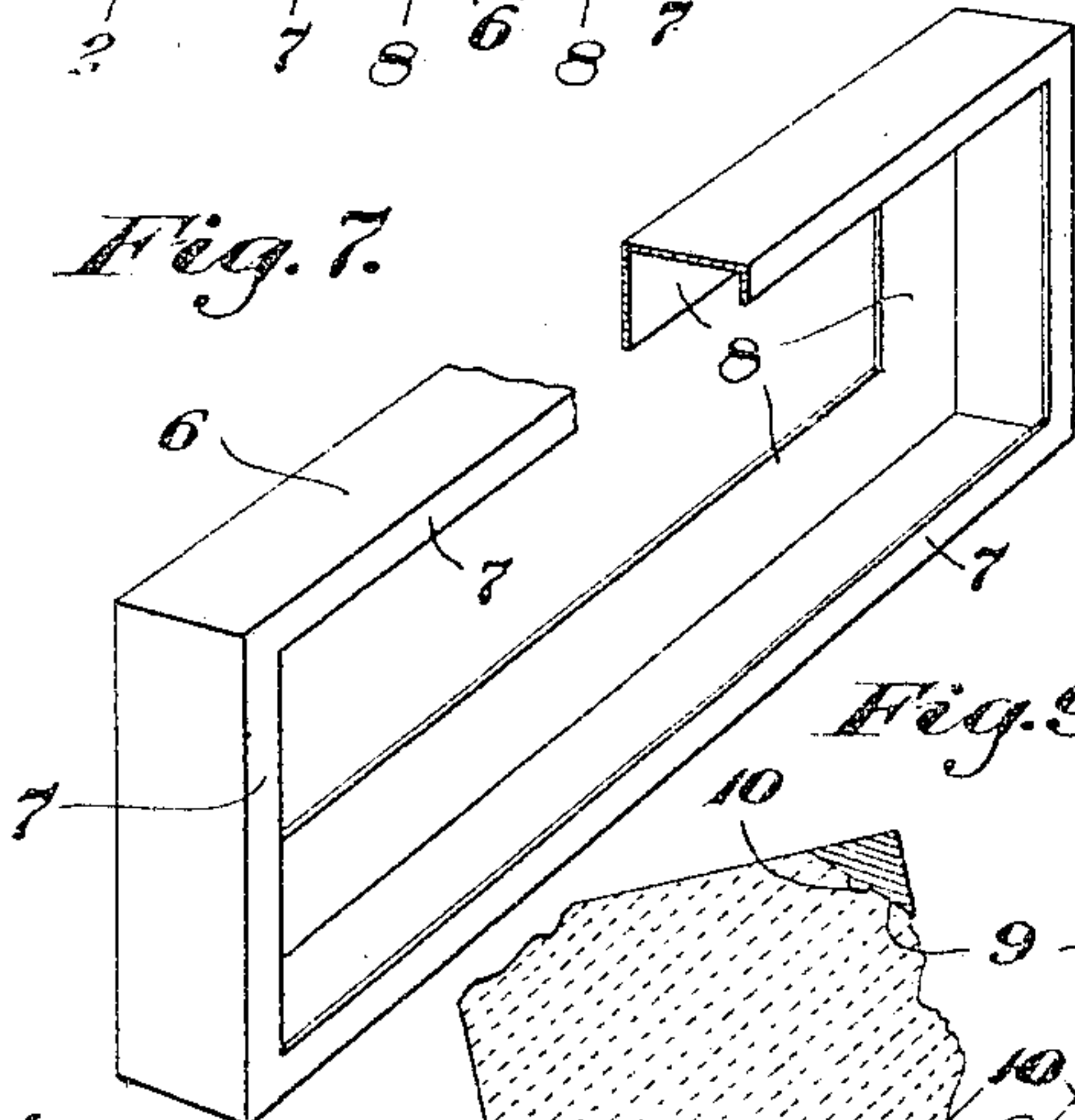
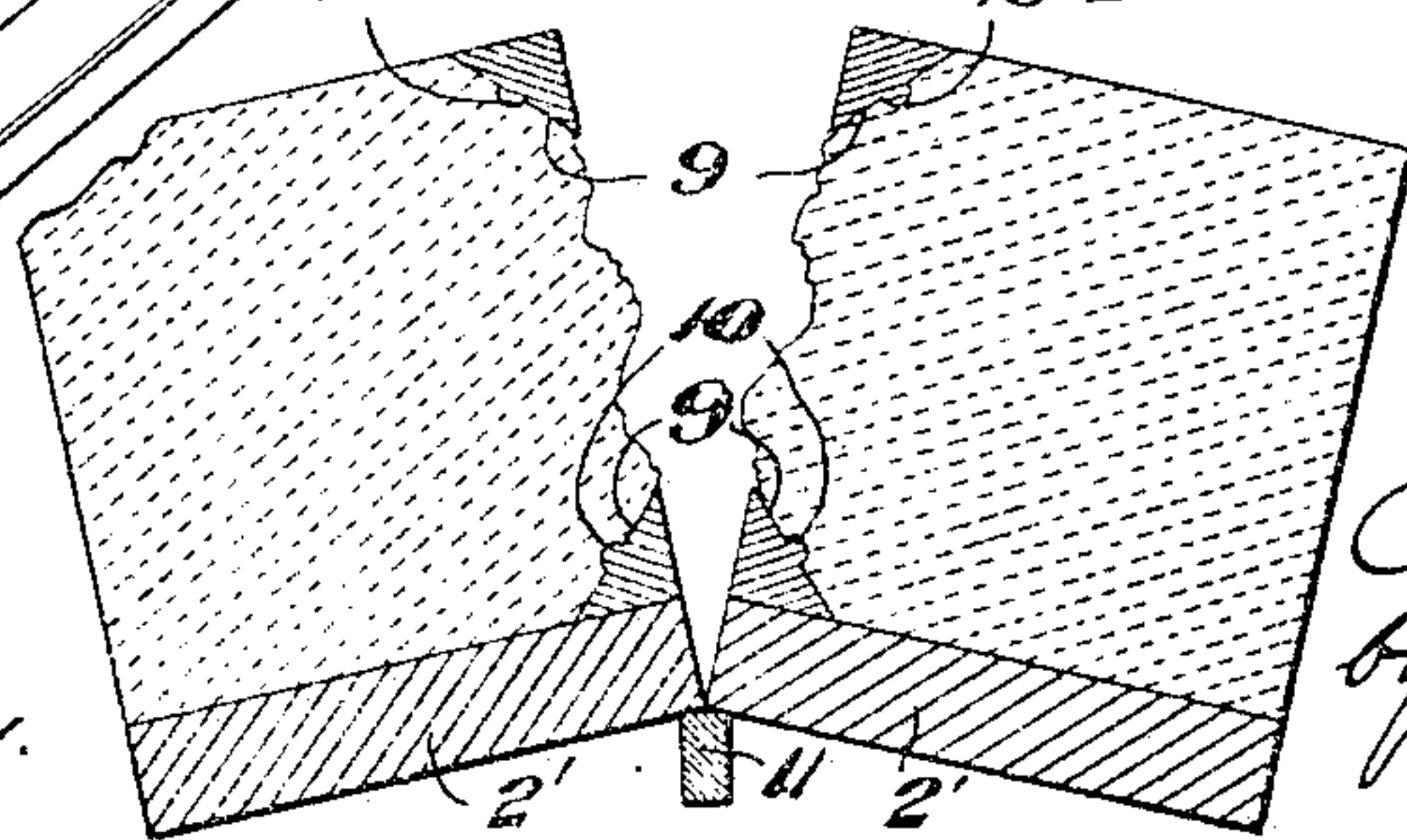


Fig. 9.



Witnesses:
E. R. Rodd.
Chas. S. Popley.

Inventor:
David W. Lloyd.
by C. M. Clark
his attorney.

UNITED STATES PATENT OFFICE.

DAVID W. LLOYD, OF PITTSBURG, PENNSYLVANIA.

METHOD OF MANUFACTURING BUILDING-BLOCKS.

SPECIFICATION forming part of Letters Patent No. 787,199, dated April 11, 1905.

Application filed November 10, 1904. Serial No. 232,084.

To all whom it may concern:

Be it known that I, DAVID W. LLOYD, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Methods of Manufacturing Building-Blocks, of which the following is a specification, reference being had therein to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical cross-section through a mold used in my improved method of manufacturing building-blocks. Fig. 2 is a perspective view of the entire block as molded therein. Fig. 3 is a transverse section through the block after having been severed. Fig. 4 is a view similar to Fig. 1, showing the application of a modified form of severing-frame. Fig. 5 is a partial similar view showing one side of the molded block with one of said frames incorporated therewith. Fig. 6 is a similar view showing the frame and a portion of the face of the block as having been detached by severing. Fig. 7 is a detail view of one of such frames. Fig. 8 is a view similar to Fig. 1, showing the use of a modified form of severing-frame. Fig. 9 is a similar view of the molded block and portions of the apparatus, illustrating the operation of severing.

My invention refers to an improved method of manufacturing building-blocks of concrete, cement, or similar substance, and refers particularly to the means for severing a singly-made double block so as to provide a line of natural fracture closely approximating and resembling the natural face of broken rock.

The invention consists generally in molding a double block originally in any suitable molding apparatus provided with a supporting-floor 2 and sides or ends 3, between which the block is formed in the usual manner. The interior dimensions of the molding-flask are such as to contain the entire double block, and for the purpose of facilitating fracture thereof after the molding operation I employ a suitable dividing device or frame and have shown in the drawings several different constructions adapted to this purpose.

In Fig. 1 I have shown an ordinary dividing-partition 4, which may consist simply of

a thin bar of metal inserted along the top and bottom and both ends of the block, so as to form therein an original groove 5. After the block is partially hardened it is separated upon this line by any suitable means and will break apart, as shown in Fig. 3, leaving the roughened naturally-severed faces, as shown, a smooth border or margin surrounding the face of the block conforming to the outline of the dividing-partition. Where it is desired to exaggerate the projecting face of the block, I employ frames 6, (shown in detail in Fig. 7,) having a supplemental inwardly-extending flange 7 and an outer deeper parting-flange 8, two of such frames being set closely together in the formation of the original block. After the blocks have been separated by fracturing through the central part this frame is then forcibly removed from each side and will carry with it an additional portion of the block, as indicated in Fig. 6, leaving the remaining projecting portion adhering thereto.

For the purpose of more accurately insuring the positive cleavage truly around the parting-line formed by the frame I have secured excellent results by the form of frame shown in Figs. 8 and 9, wherein it is provided with inner beveled faces 9, so that when the two frames are inserted in the mold together face to face, as shown, they provide a V-shaped groove surrounding the block, which insures a true cleavage at the outside, but leaves the interior line of fracture indeterminate, so as to secure the same desirable results already described. The frame as thus made with the beveled faces 9 produces a corresponding beveled face around the outer edges of the block, and a small parting-bead 10 may be used to advantage in the frame to define the width of such beveled portion, the block cleaving therefrom through the middle portion upon opening the frame. For the purpose of gently breaking the block in two I have made the bottom of the flask 2' in two corresponding sections, as indicated, so that by raising upwardly by a lever or pry-bar 11, the weight of the block resting upon each side, it will come apart by its own weight without any jarring, unnecessary strains, or disfigurement of the somewhat soft raw material. After hav-

ing been thus severed the frames may be removed, and the blocks are set aside to harden and will assume an appearance closely resembling natural stone.

5 It will be understood that any number of blocks may be made from a single block by properly designing and using the dividing-frames, although for ordinary purposes I prefer to make the blocks double, thereby providing flat rectangular backs, sides, and ends, best adapted for incorporation in a building structure. It will be understood that I do not desire to be limited to any particular form of flask, mold, or parting-frame, but that the method may be utilized by the use or substitution of any suitable devices or means for the purpose within the province and judgment of the skilled mechanic, and that all such are to be considered as within the scope of the following claims.

What I claim is—

1. The method of manufacturing building-blocks of concrete or similar material consisting in molding a single block within a suitable flask provided with separable and detachable groove-forming devices adapted to be embedded in the block, separating the block at the parting-line formed by said devices, and finally removing the groove-forming devices from the block, substantially as set forth.

2. The method of manufacturing building-blocks of concrete or similar material consist-

ing in molding a single block within a suitable flask provided with separable groove-forming devices, separating the block at the parting-line formed by said devices, and finally removing the groove-forming devices from the block together with a portion of the severed block, substantially as set forth.

3. The method of manufacturing building-blocks of concrete or similar material consisting in molding a single block within a suitable flask and upon a separable supporting-base with separable and detachable groove-forming devices adapted to be embedded in the block, then breaking the block while green upon a line of fracture corresponding with the groove formed by said devices, substantially as set forth.

4. The method of manufacturing building-blocks of concrete or similar material consisting in molding a single block within a suitable flask and upon a separable supporting-base with separable and detachable groove-forming devices adapted to be embedded in the block, and then raising the meeting edges of said base to cause the block to sever by gravity while green, substantially as set forth.

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

DAVID W. LLOYD.

Witnesses:

JAS. J. McAFEE,
C. M. CLARKE.