

(No Model.)

2 Sheets—Sheet 1.

J. LEE, Sr.
BUILDING BLOCK.

No. 541,815.

Patented June 25, 1895.

Fig. 1.

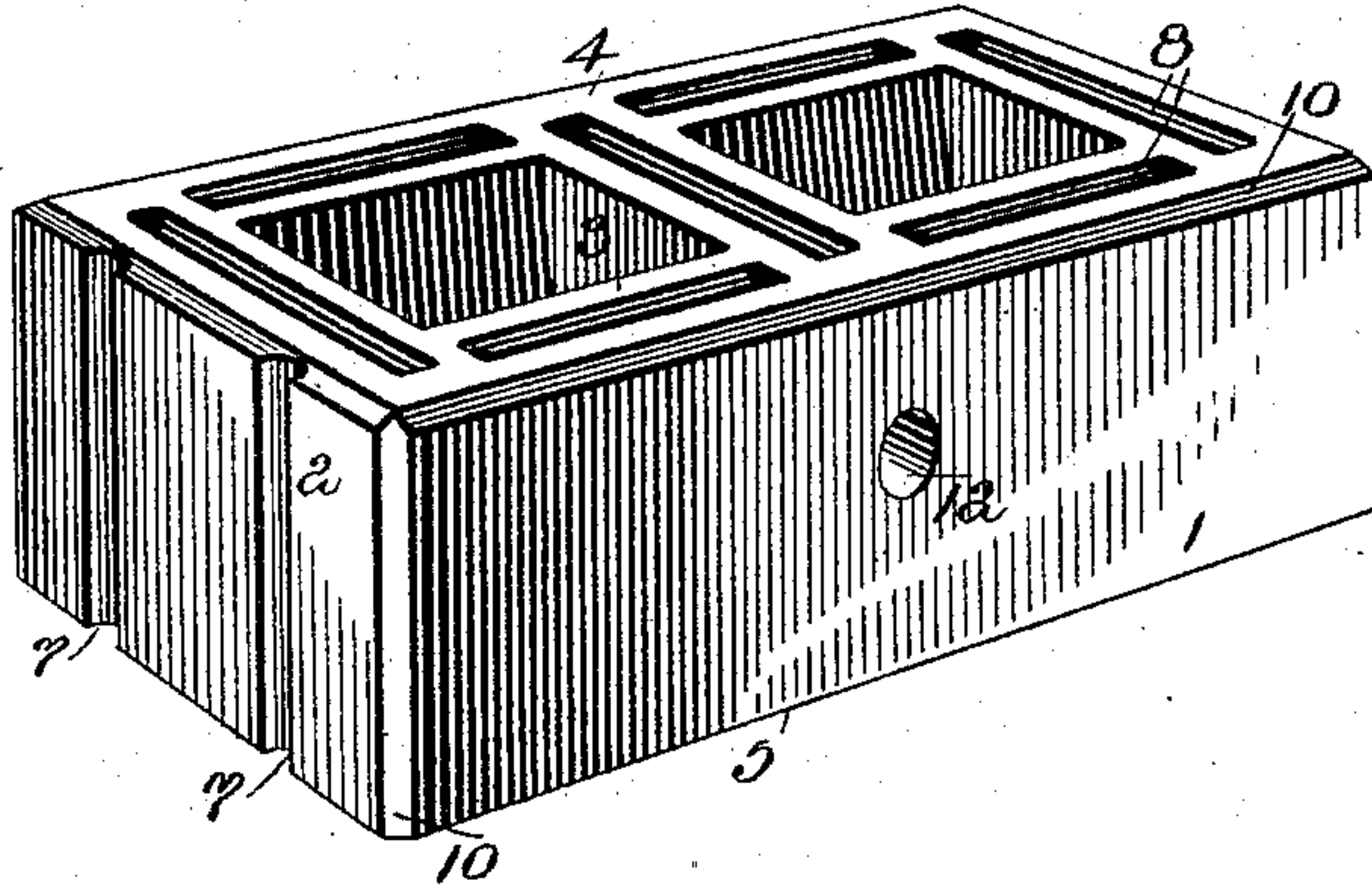


Fig. 2.

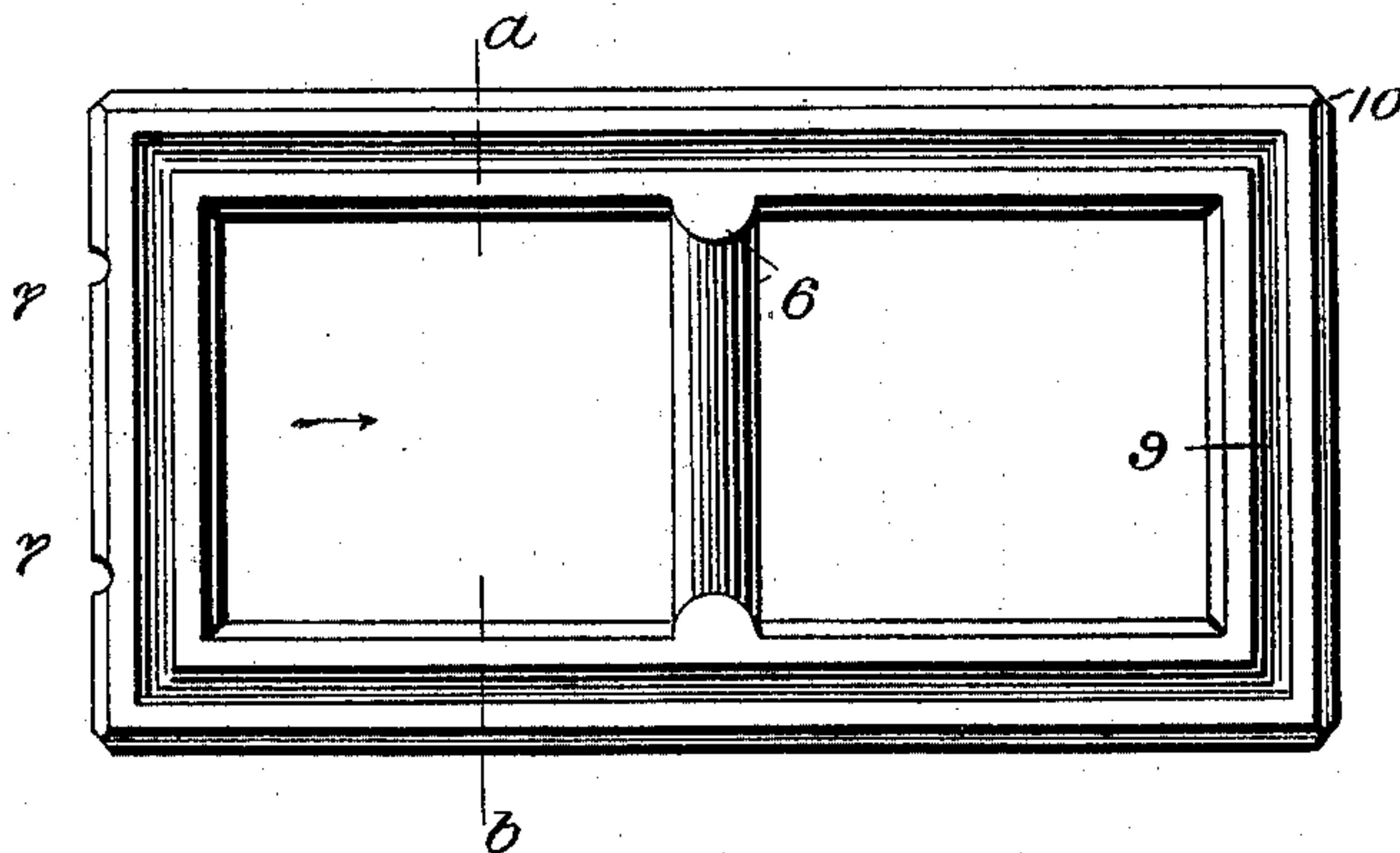
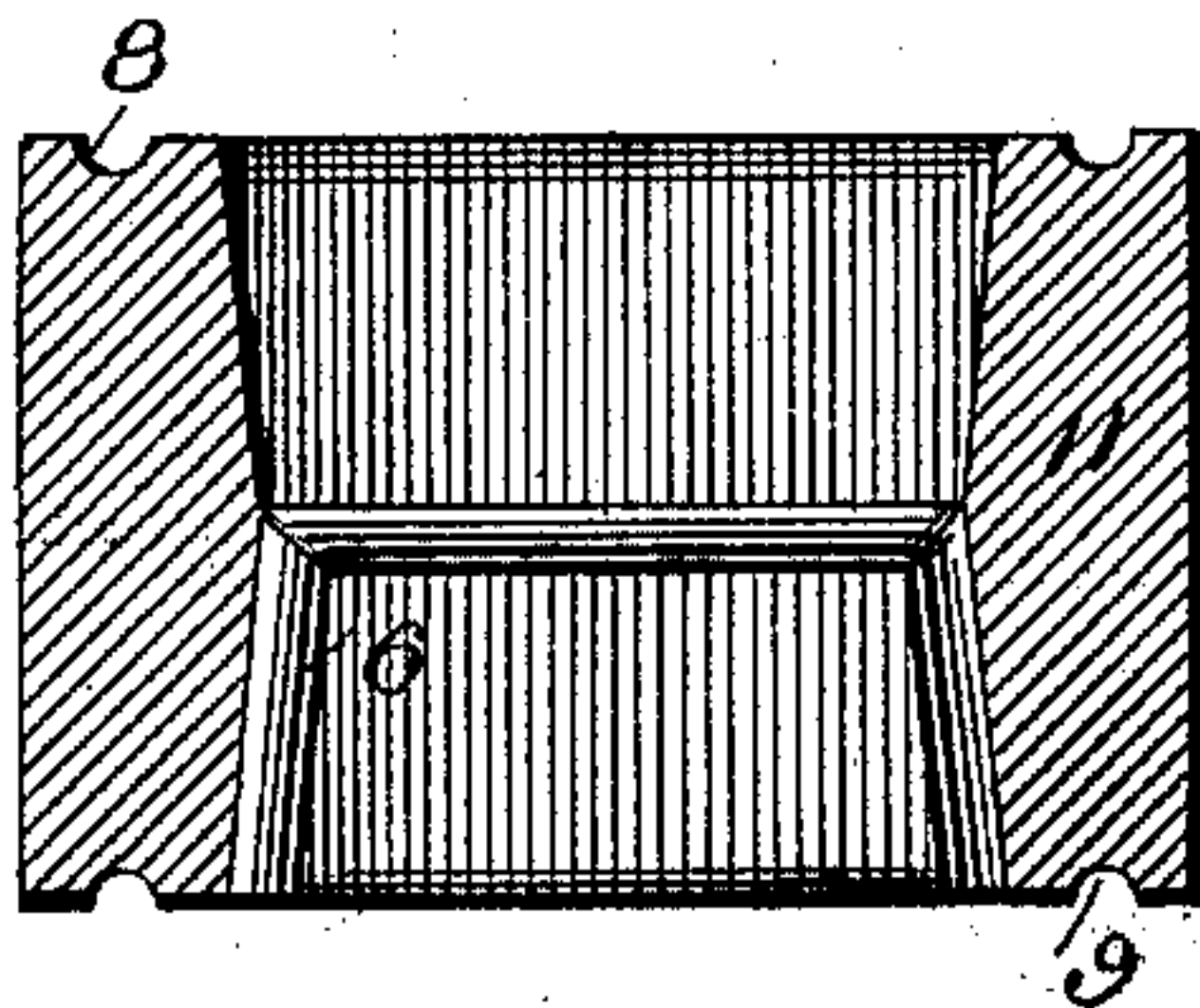


Fig. 3.



Witnesses:

Arthur Ashley
W. A. Ruff

John Lee Sr.
Inventor:

Edward Weaver
Atty

(No Model.)

2 Sheets—Sheet 2.

J. LEE, Sr.
BUILDING BLOCK.

No. 541,815.

Patented June 25, 1895.

Fig. 4.

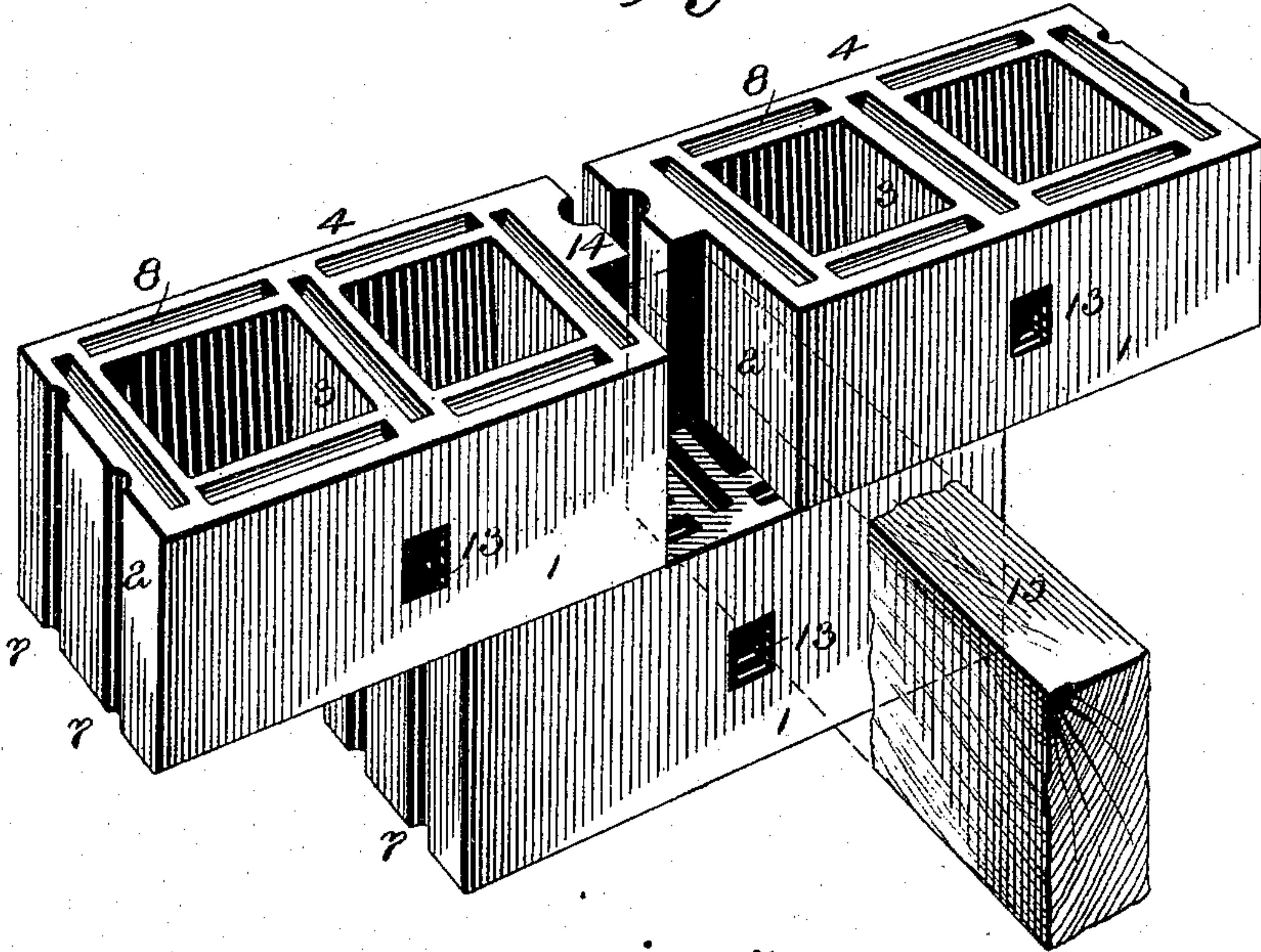


Fig. 5.

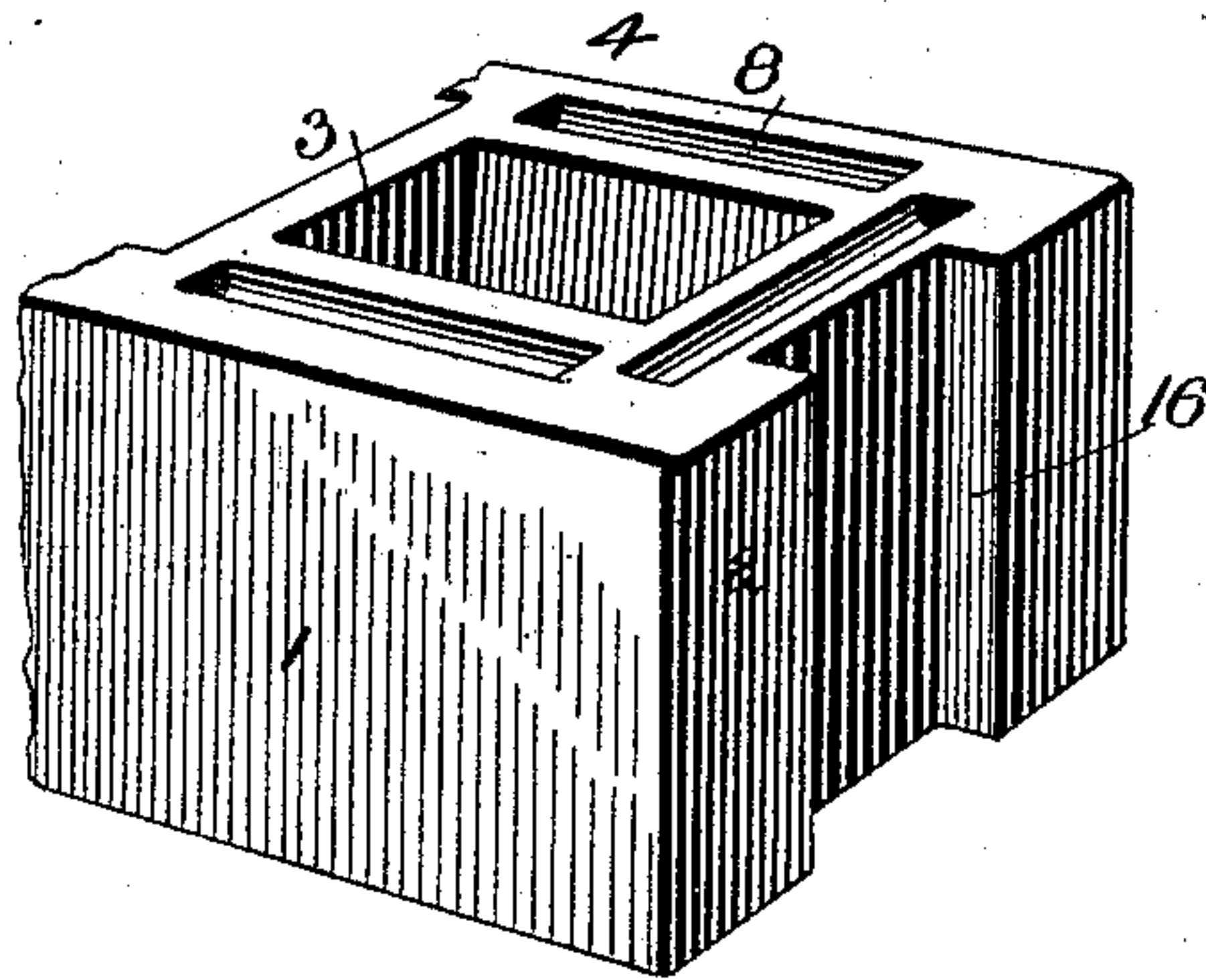
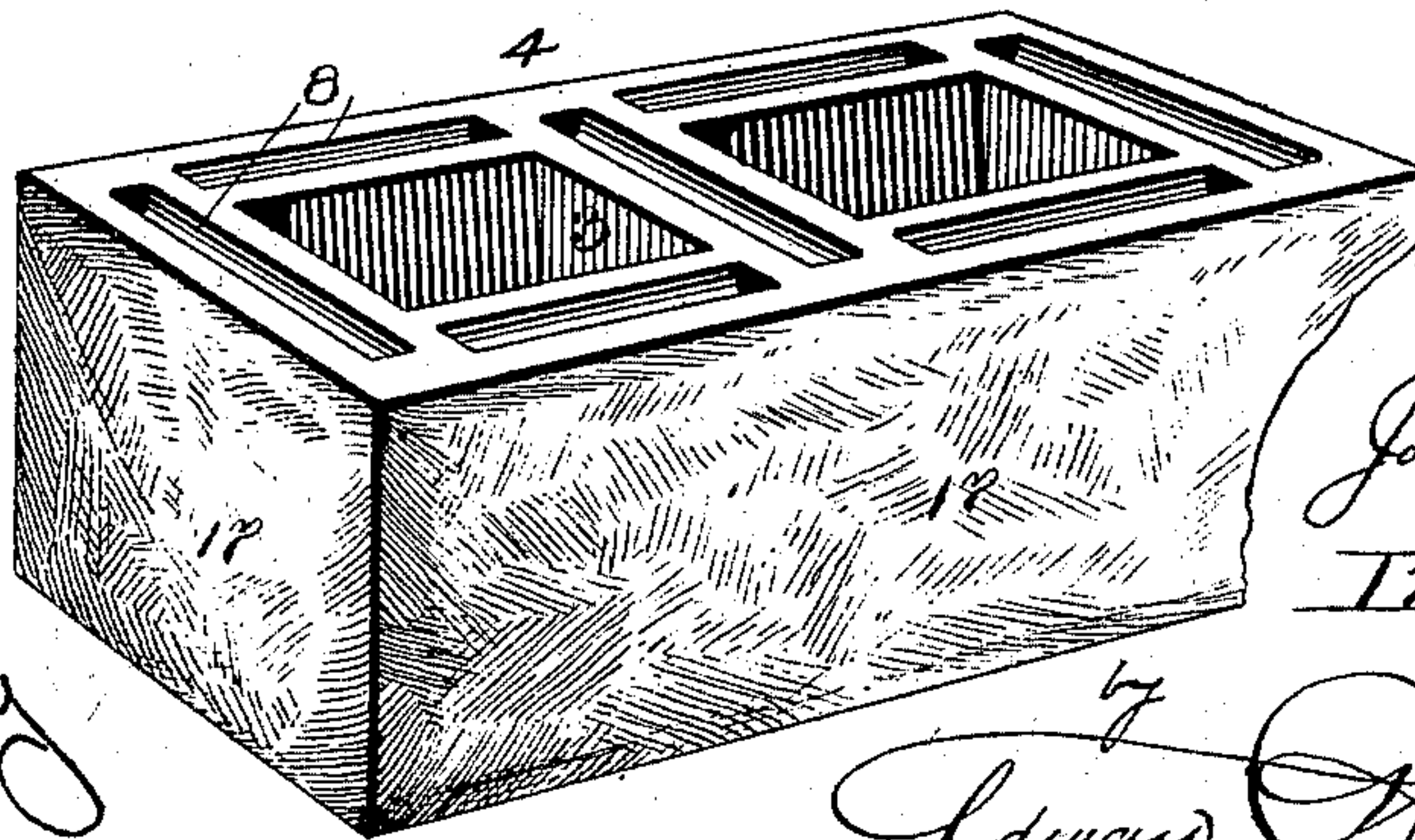


Fig. 6.



Witnesses:

Arthur Ashby
W. A. Ruff

John Lee, Sr.
Inventor:

by Edward Weaver, atty

UNITED STATES PATENT OFFICE.

JOHN LEE, SR., OF STERLING, OHIO.

BUILDING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 541,815, dated June 25, 1895.

Application filed June 13, 1894. Serial No. 514,471. (No model.)

To all whom it may concern:

Be it known that I, JOHN LEE, Sr., a citizen of the United States, residing at Sterling, in the county of Wayne and State of Ohio, have
5 invented certain new and useful Improvements in Building-Blocks; 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
10 make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

The invention relates to new and useful improvements in building blocks and the method of their manufacture, having particular reference to that class of building blocks known as "hollow blocks," or such blocks as permit a
15 free circulation of air within their walls.

The object of my invention is to provide a hollow block of the character already described and having either plain or ornamental faces combined with such peculiarities of construction and form as to present great structural strength, bonding properties, and means
25 for securing window-frames, joists, lathing and other objects which are found desirable to secure into a building wall.

In Patent No. 390,175 I have described and
30 made claim for a building block upon which the matter of this application presents improvements of such a nature as to form a new manufacture.

To consummate the ends already suggested,
35 my invention comprises such detail construction and aggregation of parts as are hereinafter fully set forth, and more particularly as defined in the claims.

In the accompanying drawings, Figure 1
40 represents one of my improved building blocks as seen in perspective. Fig. 2 is a view of Fig. 1 as seen from below. Fig. 3 is a sectional view of Fig. 2 upon the line *a-b* and looking in the direction of the arrow. Fig. 4
45 represents a portion of wall constructed of my improved blocks, and showing method of resting floor joists, or other timbers, in the wall. Fig. 5 represents a perspective view of one of my improved blocks such as door- or window-
50 frames are secured to. Fig. 6 represents a

perspective view of one of my improved blocks wherein the faces are ornamented.

In all of the figures, the same numeral designates the same part.

Referring to the drawings, 1 indicates the
55 broad face of the block, 2 the end face, and 3 a vertically-disposed partition connecting the sides 1 and having a direction parallel to the ends 2. It will be further noticed that the said vertically-disposed partition extends about
60 half-way from top 4 to bottom 5 of the block, and lugs or rounded projections 6 on the inner surfaces of the sides, are continuous of the said partition 3 to the bottom 5.

In the ends 2 of the block are vertical parallel grooves 7, two or more in number, and
65 so placed that when the blocks are end for end, such grooves will register. Mortar or cement being introduced in the resulting recesses, a perfect bond is established between the blocks.
70 To establish further bonding between the several courses of blocks, a series of grooves 8 are made upon the top 4 of the block, such grooves being in the material of the sides 1, ends 2, and partition 3 respectively. In the bottom
75 of the block (Fig. 2) is a continuous groove 9. It will readily be understood that when one block is placed upon the other, the sets of grooves 8 and 9 register, and cement being placed therein, a perfect bond is established.
80

It may be sometimes found desirable to bevel the edges of the blocks at 10 in Figs. 1 and 2.

It will be remembered that in my Patent No. 390,175 already mentioned, claim was
85 made for a horizontal partition having openings, this for the purpose of augmenting the strength of the block. Reference to Fig. 3 will reveal that in the matter of the present application, the same result is accomplished
90 by converging the inner surfaces of the sides and ends toward the interior of the block, such convergence being illustrated in section 11 of sides 1, Fig. 3. This form of construction presents all of the advantages of the horizontal flange described in my former patent,
95 without being fragile and liable to breakage.

The securing of lathing to walls made of my improved building blocks is accomplished in the following manner: In the manufacture
100

of the blocks, I cause to be made in some of them round holes 12 (Fig. 1) or square holes (Fig. 4) which enter for the distance of an inch or two as practice may dictate. It is also to be noticed that greater security is attained by extending this hole 12 or 13 into the material of the central vertically disposed partition. Within the described holes 12 and 13, wedges of wood are driven in the manner well known to the builders' art, such wedges forming proper surfaces for nailing lathing, &c. The provision of these holes does away with the wedging in the joints of the tile wall breaking the continuity of the course-bonding. Flooring joists or other timbers, as 15 (Fig. 4) are securely introduced into a wall constructed of my improved building blocks in a manner particularly shown in Fig. 4. The ends of the blocks have made thereon a rabbet or open recess 14, and when two of these blocks are placed end to end, such recesses register and form an opening or pocket which retains the end of the joist 15, the latter resting upon the vertically disposed partition of the block in the next course below.

Window frames may be secured by the interposition of blocks formed as in Fig. 5. A vertical recess is made in the end face of the block, such recess 16 being several inches in width and an inch in depth more or less. A cleat of wood is nailed upon the sides of the window-frame in a vertical direction, such cleat being of a size to fit snugly in the recess 16 before mentioned. A number of the blocks shown in Fig. 5 being placed one upon the other, the recesses 16 form a continuous groove which engages the cleat described as upon the window-frame. The said cleat thereupon acts as a key to secure the frame to its proper seat.

In the manufacture of my improved building block, which is accomplished by the pressure of clay or similar material in a mold or die by a press made for the purpose, and in which the pressure is applied from the top of the block by suitable plungers and actuated mechanism, and by which process a homogeneous product is obtained, it is often found desirable to produce a block having an ornamental surface. In Fig. 6, such a surface has been shown upon the side and end of the block, being in this case an imitation of rough hewn stone. It may be readily understood however, that such ornamental surfaces can be such as the fancy may suggest.

While a building block has been described as having grooves in the ends, it must not be understood that such grooves are necessarily in both ends or in either end, as there occur places in the setting or laying of building

blocks where such grooves would be undesirable, as for instance where a block is placed as a "header."

I claim as my invention—

1. A hollow building block, with a central vertically-disposed partition flush with the top of the block and extending part way through the same, and projections 6 supplemental of the said partition to the bottom of the block, substantially as described.

2. A hollow building block with a central vertically disposed partition extending part way through the said block, a rectangularly disposed series of bonding grooves upon its top, and an endless bonding groove upon its bottom substantially as described.

3. A hollow building block, with a central vertically-disposed partition flush with the top of the block, and extending part way through the same, projections 6 supplemental of the said partition to the bottom of the block, and walls whose inner faces converge toward the interior of the block.

4. A hollow building block, with a central vertically-disposed partition flush with the top of the block, and extending part way through the same, projections 6 supplemental of the said partition to the bottom of the block, and walls with face-form of rough-hewn or spalled stone.

5. A hollow building block, with central vertically-disposed partition, and wedging-recesses 12 and 13 in the face of the block, said recesses extending into the body of the said partition.

6. A hollow building block, with central vertically-disposed partition flush with the top of the block and extending part way through the same, projections 6 supplemental of the said partition to the bottom of the block, and a rabbet or rectangular recess 14 to receive a flooring joist, substantially as described.

7. A hollow building block, with a central vertically disposed partition flush with the top of the block, and extending part way through the same, projections 6 supplemental of the said partition, walls whose inner faces converge toward the interior of the block, and open vertical recesses or channels in the ends of the said block, such channels having a rectangular section and being for the purpose of containing window- or door-framing, or nailing strips therefor, substantially as has been described.

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

JOHN LEE, SR.

Witnesses:

FRANKLIN A. HOUGHTON,
JOHN LEE, Jr.