(No model.)

J. LEE.

BUILDING BRICK.

No. 274,449. Patented Mar. 20, 1883.

Fig. 1.

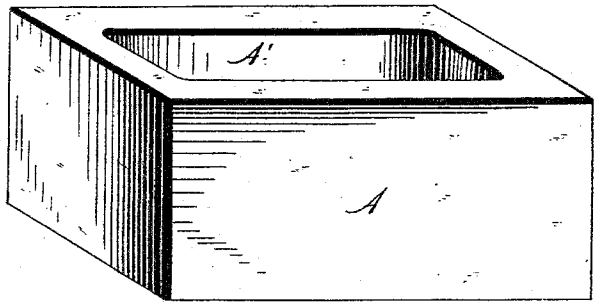


Fig. 2.

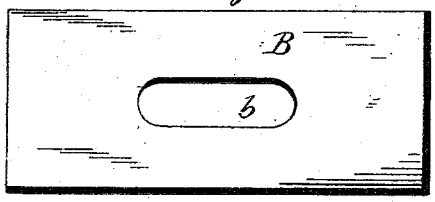


Fig. 3.

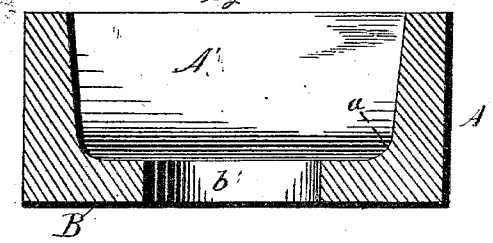


Fig. 4.

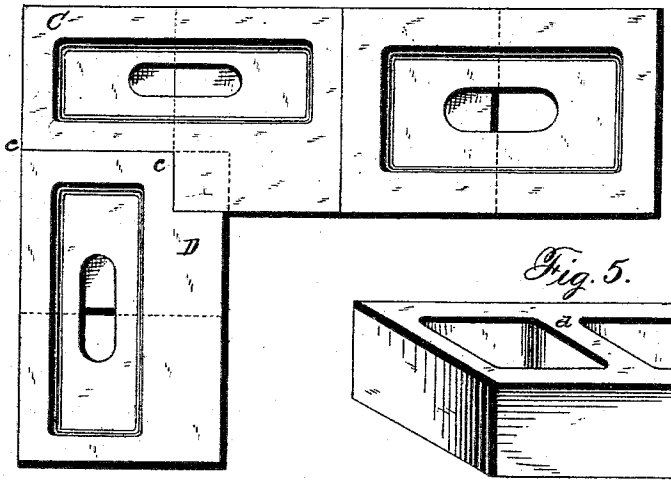


Fig. 5.

Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN LEE, OF RUSSELL, OHIO.

BUILDING-BRICK.

SPECIFICATION forming part of Letters Patent No. 274,449, dated March 20, 1883.

Application filed January 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN LEE, of Russell, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Building-Brick; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to the manufacture of bricks or building-blocks; and my invention consists in forming a brick or block practically hollow and perforated, so that when laid in the wall the wall will contain an air-space, and all danger of a damp and unwholesome building is obviated.

It consists, further, in forming a flange or rim around the inner upper edge of the cavity, by which the brick can be more easily handled, and also serves as a safeguard to prevent the bricks or blocks from warping or twisting while being burned.

My invention consists, further, in certain details in the construction of corner-bricks and in the structure of the wall, which will be more fully described hereinafter, and pointed out in the claims.

Figure 1 is a view in perspective of the bottom of my preferred form of brick. Fig. 2 is a top view. Fig. 3 is a sectional view. Fig. 4 is a top view of the corner of the wall, showing the lap of the corner-bricks. Fig. 5 is a view in perspective of a modified form of brick. Fig. 6 is a sectional view of the same.

Referring to the drawings, A designates my preferred form of brick, which may be of any required dimensions; but for the most practical and best results in walls of ordinary thickness I make them twelve inches long, nine inches wide, and six inches thick. The central portion of the brick is made hollow, as shown. The upper portion of said cavity is rounded at the corners, so that it forms an arch to resist the compression strain of the superstructure. This rounded portion is shown at *a*, Fig. 3. The upper edges of the brick are provided with an inwardly-projecting flange, B, in which is formed a recess, *b*, which enters the main cavity A′ of the brick, and thus produces a continuous air-space within the wall when properly laid. The projecting flange B is a very important feature of my invention. It gives strength and rigidity to the block at the very point required. It serves as a hand-hold for workmen to more readily handle and place the blocks in the required position, and also serves as a strengthening-rib to prevent the blocks from twisting and warping in the kiln while being burned. Furthermore, the flange, by projecting over from the upper edge, serves to arrest the products of combustion in the kiln in their passage through the bricks in the process of burning, and insures a uniform burning of the bricks in all their parts, so that one portion will not be overburned or the products of combustion wasted by its too free passage through the kiln.

C indicates the corner-brick, which is recessed on its edge, as shown at *c* by full lines, Fig. 4, so as to fit into a smaller recess in the abutting brick D of the adjacent or joining wall, and thus a perfect bond of union is secured between the walls. Corner-bricks of such construction are not necessary, except where the brick are made wide enough to form the entire thickness of the wall. Where their length is double the width of the brick, so that they can be laid as headers and stretchers, it is not necessary. Bricks of any angle or pitch for the gable ends of buildings may also be made hollow and with the same characteristics as the ones just described; and I do not wish to limit myself to bricks of any particular peripheral outline. The bricks C and D are readily formed by placing a piece of wood or metal within the mold and having a corresponding piece made detachable from the plunger; or separate mold or plunger may be used in the manufacture of the corner-brick.

In Figs. 6 and 7, I have shown a modification, in which case the walls of the hollow brick are connected by a cross-piece, *d*, which answers well for a hand-hold and prevents the brick from warping during the process of drying and burning. The advantages of my preferred form of brick are obvious, and may be stated as follows: The flange affords a hand-hold for the mason to more readily handle the brick and protects them from warping during the drying and burning process. By making the bricks practically hollow, free circulation

of air is permitted in the walls of the building to keep them dry. In burning such brick the inside and outside are burned alike and with a much less expenditure of fuel than in the burning of the ordinary brick. Less clay is used in the manufacture of such brick, and by making them of the size specified much less mortar is used in setting them in place.

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

1. A hollow brick or building-block the upper edge of which is provided with an inwardly-projecting perforated flange, B, as and for the purpose set forth.

2. A hollow brick or building-block the upper portion of the cavity of which is rounded, and the walls of which terminate in a perforated projecting flange, as set forth.

3. A hollow brick or building-block for the corners of walls, provided with a recess or rabbet, which permits it to impinge on the brick of the adjacent wall to bind the same, as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN LEE.

Witnesses:
G. M. Ross,
W. I. Kiefer.