

(No Model.)

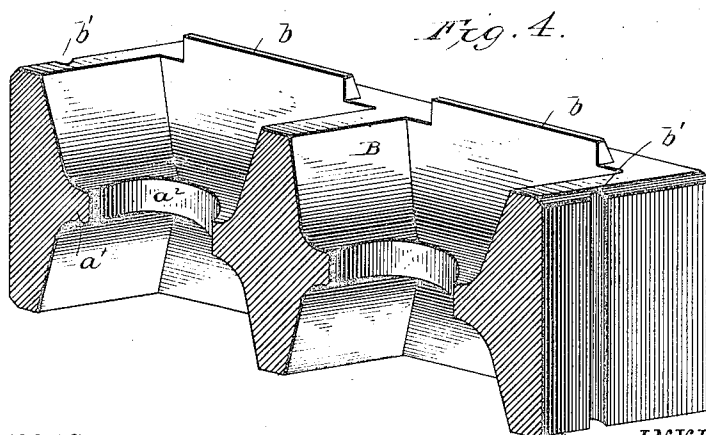
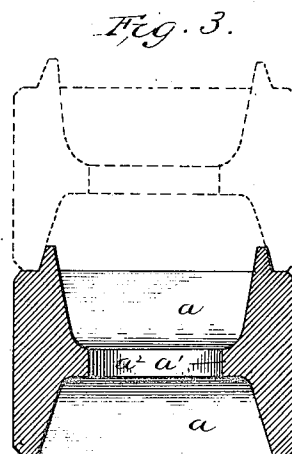
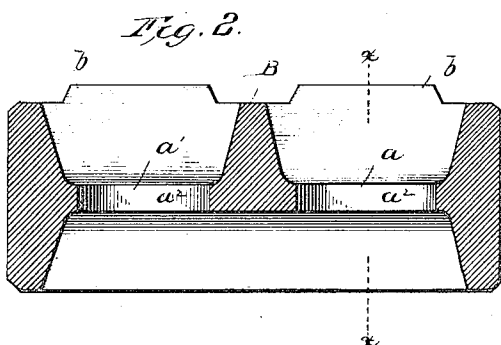
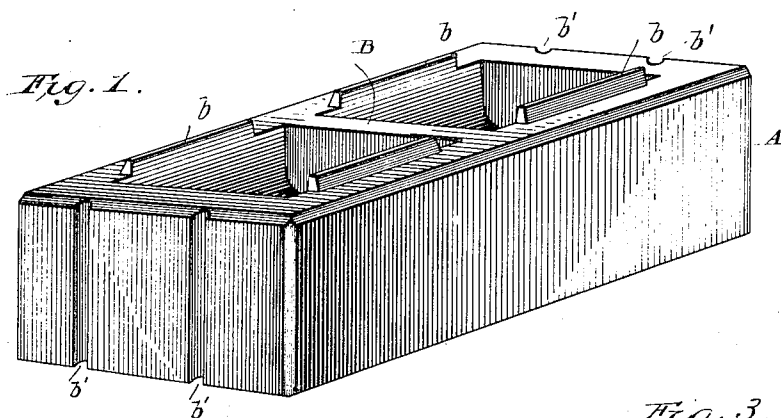
2 Sheets—Sheet 1.

J. LEE.

HOLLOW BUILDING BLOCK OR BRICK.

No. 390,175.

Patented Sept. 25, 1888.



WITNESSES

Edwin I. Jewell,

John Anders, Jr.

INVENTOR.

John Lee
By [Signature]
Attorneys.

(No Model.)

2 Sheets—Sheet 2.

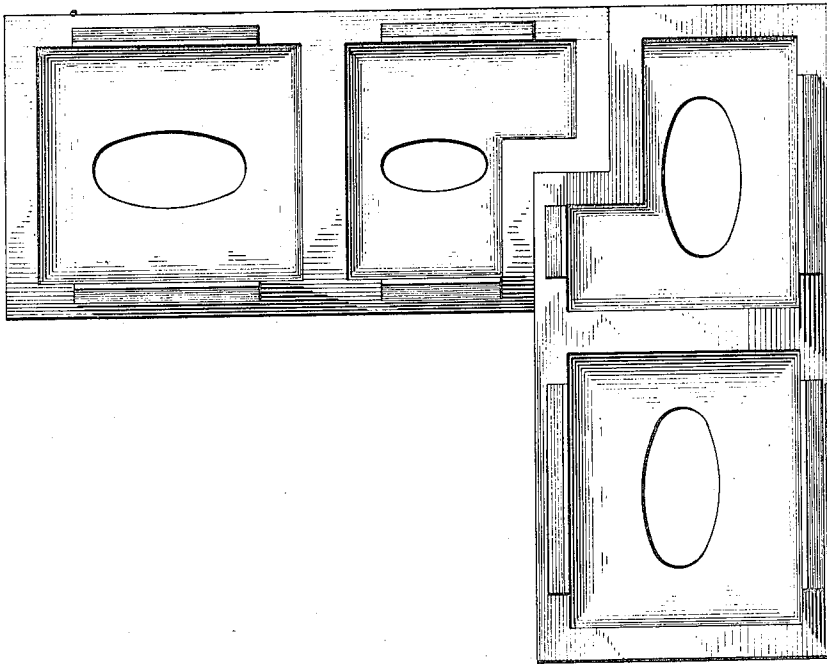
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Fig. 5.



WITNESSES

Edwin I. Yewell.
Frank H. Warder

INVENTOR

John Lee
By [Signature]
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN LEE, OF STERLING, OHIO.

HOLLOW BUILDING BLOCK OR BRICK.

SPECIFICATION forming part of Letters Patent No. 390,175, dated September 25, 1888

Application filed October 25, 1887. Serial No. 253,285. (No model.)

To all whom it may concern:

Be it known that I, JOHN LEE, a citizen of the United States of America, residing at Sterling, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Hollow Building Blocks or Bricks, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention pertains to certain new and useful improvements in building blocks or bricks, the same having reference more particularly to that class of bricks providing means for the free circulation of air throughout the wall constructed thereof.

15 The object of the invention is the provision of simple and efficient means for allowing the circulation of air through a wall constructed of blocks or bricks after my invention; means for preventing the warping of the sides of the blocks or bricks while being burned or when drying; means for the application of mortar between the ends of the adjoining bricks, and, lastly, means for securing in position bricks or 25 blocks disposed horizontally one upon another.

To these ends the invention comprises the detail construction and arrangement of the parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

30 In the accompanying drawings, Figure 1 is a view in perspective of my invention. Figs. 2 and 3 are respectively longitudinal and cross-sectional views thereof, the latter being taken on the line *x x*, Fig. 2. Fig. 4 is a perspective view, in section, of a modified form of my invention; and Fig. 5 is a plan view of the corner blocks or bricks.

Referring to the drawings, A indicates the block or brick, which can be of any desired size, the dimensions of the preferred size being eight inches high, eight inches wide, and sixteen inches long, said block or brick having its outer corner edges and upper and lower horizontal edges beveled, as shown in Fig. 1. This block or brick A is composed of upper and lower horizontal arches, *a a*, as shown in Fig. 3, the same being separated by two horizontal partitions, *a' a'*, which are in the form of a continuous inwardly-projecting flange, and in each of these partitions or flanges is formed a preferably oval-shaped opening or aperture, *a''*.

It will be seen that the sides and the ends of

the arches are slightly curved on their inner surfaces, as shown.

B is a central vertically-disposed partition 55 connecting the longitudinal sides of the block or brick A, dividing the upper arch thereof into two apartments. At the opposite sides of the two apartments in the upper arch *a* formed by the partition B are four upwardly-project- 60 ing tongues or flanges, *b*, the inner surfaces of which are on a line with the inner surfaces of the longitudinal sides of the block or brick A, as shown in Fig. 3.

In each vertical end of my block or brick are 65 formed two or more parallel semicircular grooves, *b' b'*, designed to coincide with the corresponding grooves of the adjoining block or brick, so as to receive mortar, whereby the adjoining ends of the blocks or bricks can be 70 secured together.

By means of the double arches the strength of the block or brick is greatly augmented, and the same is rendered stronger than blocks or bricks of this class heretofore constructed, and 75 the central vertical partition additionally secures and strengthens the longitudinal sides of my block or brick and prevents the same from warping while being burned and dried.

From what has been said it will be seen that 80 by means of the tongues or flanges *b* of my block or brick a correspondingly-formed block or brick placed upon the upper horizontal edge thereof will be securely held in position, as against displacement, by reason of said tongues 85 or flanges entering the lower arch of the upper block or brick and abutting against the inner surface of the longitudinal sides thereof, and that thereby a wall constructed of my improved block or brick will be prevented from 90 falling apart or spreading, each block or brick being held firmly in contact with the one upon which it is placed. The strength of such a wall is further augmented by reason of the grooves in the ends of the block or brick, 95 wherein the mortar can be inserted, so as to permit the ends of the adjoining blocks or bricks to fit snugly against each other, and at the same time be firmly held by the mortar in said grooves.

When my block or brick is made of any size other than having the length double the width—as, for instance, twelve by sixteen—it is then necessary that corner-bricks be used, 100

so as to match or fill up break-joints in the center and corners. I have therefore provided the form shown in Fig. 5, which consists in forming the end sections of the corner-bricks 5 A' A' of approximately L shape, so that the projecting portion of one end section shall fit snugly into the correspondingly-shaped groove or recess in the end section of the other block or brick disposed at right angles thereto, as 10 shown. These corner blocks or bricks are made often the same form as those previously described—that is, they are each provided with the upper and lower arches, central partition, tongues or flanges, and mortar-recesses—so 15 that the principle of my invention is maintained throughout the entire structure of the wall or building.

In Fig. 4 I have shown a modified form of my invention, which consists in extending the 20 central vertical partition, B, entirely through the center of the block or brick, thus also dividing the lower arch into two apartments and additionally strengthening the sides thereof, and further provide against warping, as stated. 25 I claim as my invention—

1. The herein-described improved block or brick, consisting of the upper and lower arches, the horizontal partitions or flanges having openings, the central vertical partition connected to the sides of said upper arch, the 30 tongues or flanges, the inner surfaces of which are on a line with the inner surfaces of the longitudinal sides of said block or brick, and the parallel semicircular grooves in the end walls of said block or brick, substantially as shown 35 and described.

2. The herein-described brick, comprising the upper and lower arches, the horizontal partitions or flanges, the central vertical partition, and the parallel semicircular grooves in 40 the end walls of said block or brick, substantially as shown and described.

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

JOHN LEE.

Witnesses:

WARDEN WHEELER,
SADIE SEABROOK.