

(No Model.)

2 Sheets—Sheet 1.

R. A. & J. F. BROWN.
TILE KILN.

No. 255,247.

Patented Mar. 21, 1882.

Fig. 1.

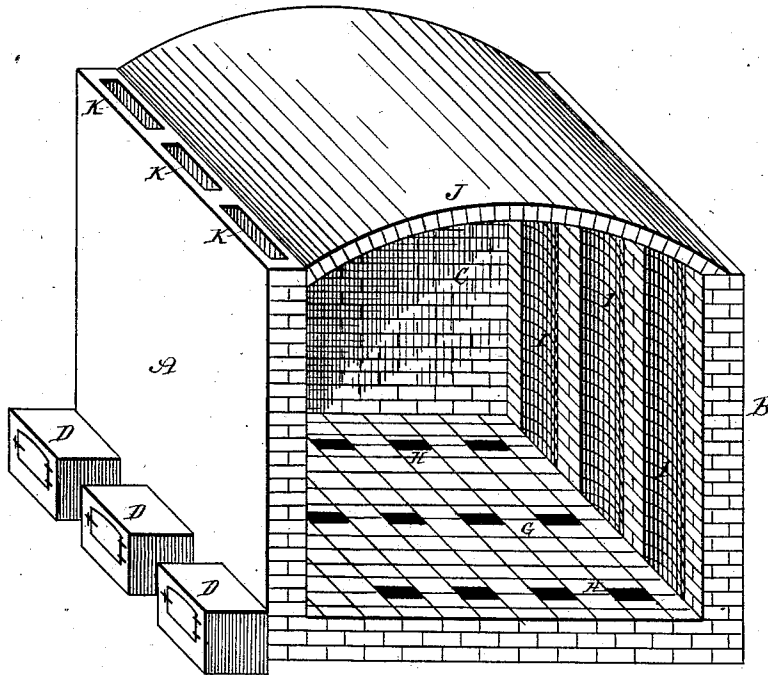
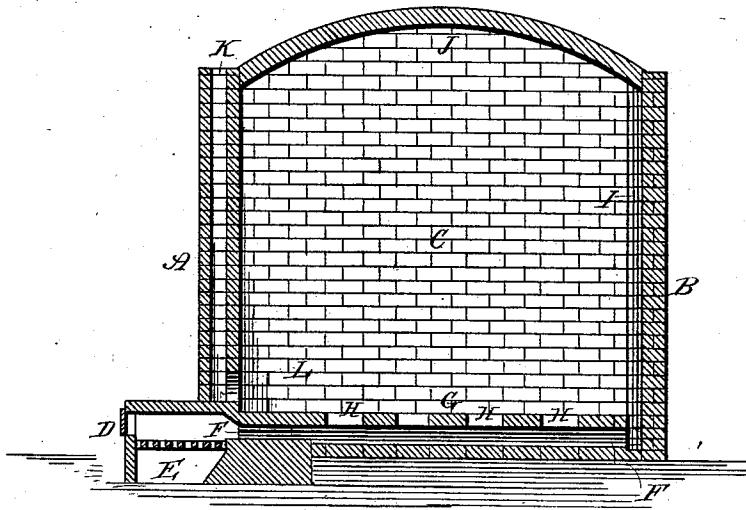


Fig. 2.



Witnesses:

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Fig. 3.

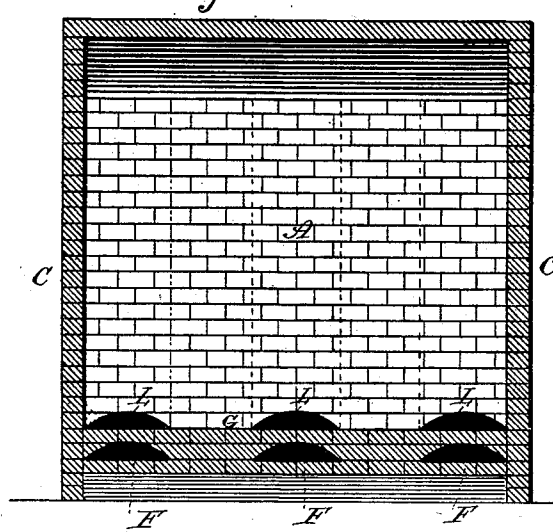
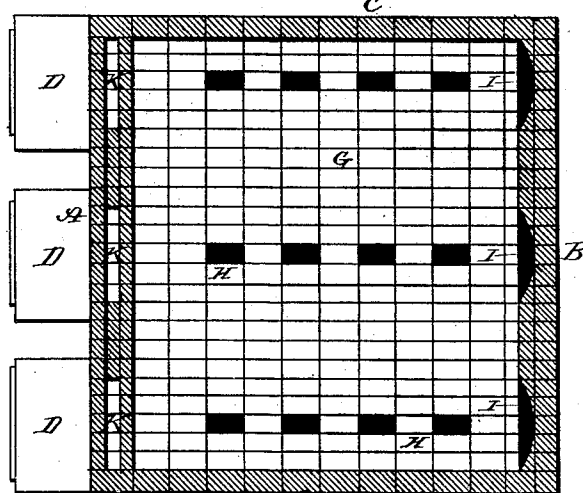


Fig. 4.



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Inventors:

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UNITED STATES PATENT OFFICE.

ROBERT A. BROWN AND JOHN F. BROWN, OF WASHINGTON, INDIANA.

TILE-KILN.

SPECIFICATION forming part of Letters Patent No. 255,247, dated March 21, 1882.

Application filed February 3, 1882. (No model.)

To all whom it may concern:

Be it known that we, ROBERT A. BROWN and JOHN F. BROWN, of Washington, in the county of Daviess and State of Indiana, have invented certain new and useful Improvements in Tile-Kilns; and we 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, which form a part of this specification.

Figure 1 is a perspective view of our improved tile-kiln, one of the side walls being broken away in order to show the interior construction. Fig. 2 is a longitudinal vertical sectional view. Fig. 3 is a vertical cross-section, and Fig. 4 is a horizontal sectional view.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to brick-kilns; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A represents the front wall, B the back wall, and C C the side walls, of our improved kiln.

D D are the furnaces, any desired number of which may be used, said furnaces being constructed in the usual manner and located mainly in front of the front wall, A.

E E are the ash-pits.

F F are arched flues or combustion-chambers, which extend rearward from the furnaces D, longitudinally through the kiln, under the floor G, which is provided with openings H, communicating with said flues.

The back wall, B, of the kiln is provided with a series of vertical concave recesses, I, the lower ends of which communicate with the rear ends of the longitudinal flues F, of which they form extensions, so as to admit of the passage of the products of combustion in an upward direction. The said concave recesses I terminate just below the arched roof J of the kiln.

K K are vertical flues, constructed outside the front wall, A, of the kiln, and extending

upward from the furnaces D, with which, however, they are not connected directly. The front wall, A, is provided just above the floor G with openings L, connecting the interior of the kiln with the lower ends of the flues K.

The operation of our invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. The bricks are to be packed or placed in the kiln in such a manner as to leave the concave passages I in the back wall open. When fire is started in the furnaces the products of combustion will pass through the longitudinal flues F, under the floor, through the openings H, in which heat will pass upward through the interstices between the bricks. From the flues F the products of combustion pass upward through the concave passages I, under the arched roof J, down through the bricks, and through the openings L in the front wall, out into the exit-flues K.

By this construction of the kiln brick and tile may be burned evenly and rapidly and with less expense for fuel than in other kilns known to us.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. A brick-kiln the back wall of which is provided with vertical concave recesses communicating with the floor-flues, substantially as set forth.

2. The herein-described improved kiln, provided with furnaces D, floor-flues F, having openings H extending through the floor G, back wall, B, having vertical concave recesses I communicating with the flues F, arched roof J, flues K, and front wall, A, having openings L connecting the interior of the kiln with the lower ends of the exit-flues K, all constructed and arranged substantially as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

ROBERT A. BROWN.
JOHN F. BROWN.

Witnesses:

OWEN K. FEGAN,
JOHN C. BILLHEIMER.