

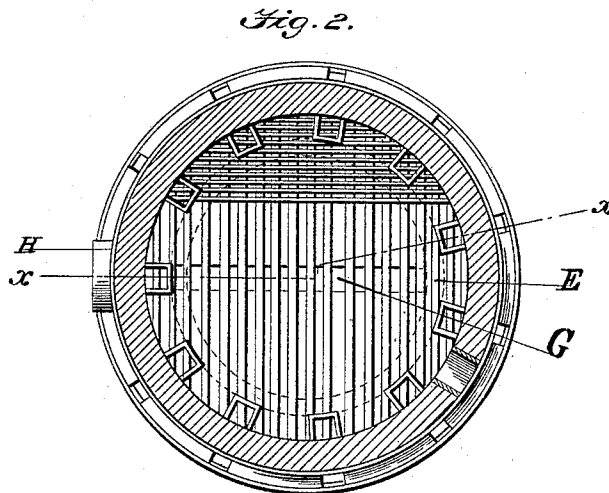
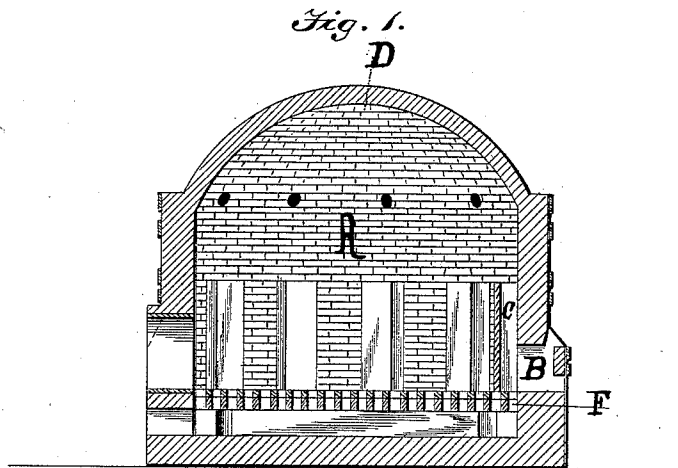
(No Model.)

2 Sheets—Sheet 1.

E. M. PIKE & J. CASTLE.
BRICK KILN.

No. 463,167.

Patented Nov. 17, 1891.



Witnesses
Harry D. Roberts.
C. M. Bates.

E. M. Pike and Inventors
J. Castle.
By their Attorneys
Pike & Co.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

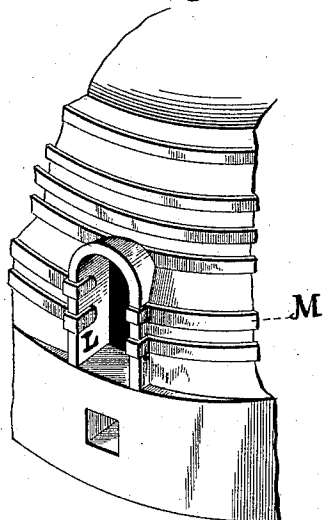


Fig. 4.

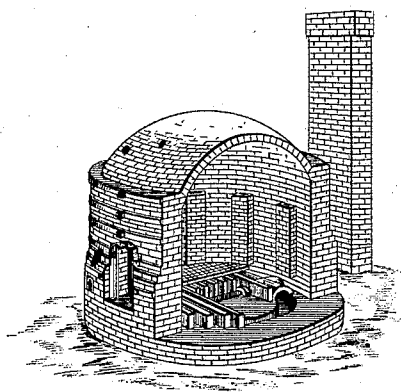
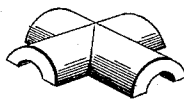


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWARD M. PIKE AND JUSTUS CASTLE, OF CHENOA, ILLINOIS.

BRICK-KILN.

SPECIFICATION forming part of Letters Patent No. 463,167, dated November 17, 1891.

Application filed April 30, 1891. Serial No. 391,104. (No model.)

To all whom it may concern:

Be it known that we, EDWARD M. PIKE and JUSTUS CASTLE, of Chenoa, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Tile and Pottery Kilns; and we 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 make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in kilns for burning articles of clay, earthenware, &c.; and it has for its object to so improve the existing prior state of the art that there will be produced a kiln which will burn quickly, uniformly, and thoroughly the articles placed therein, combining efficient work with expedition and economy.

To this end the invention consists in the novel construction and arrangement of the several parts, as will be hereinafter more particularly described, and specifically pointed out in the claim.

We have fully and clearly illustrated our invention in the accompanying drawings, to which reference is had and which form a part of this specification, wherein—

Figure 1 is a central vertical sectional view taken on the line *xx* of Fig. 2, and Fig. 2 is a horizontal sectional view of the furnace. Fig. 3 is a perspective view showing the floor-frame and bands which encircle the kiln. Fig. 4 is an inside view showing the floor and arching, and Fig. 5 is a section of arching.

A designates a downdraft kiln of ordinary size constructed of the usual materials.

B represents the fire-chambers formed in the lower walls of the kiln equally distant from each other and between any two of which the door may be placed. The walls at the point where the fire-boxes are located are formed thicker than at the top of the kiln.

C represents flues extending from said fire-

boxes upward in a vertical direction from the ground nearly to the spring of the dome or crown.

D represents the crown or dome of the kiln provided with the circular openings located near the spring thereof.

E is an annular or circular flue extending around the entire kiln on the inside at a proper distance from the walls, arched over a distance from the stack side, and connecting with the transverse flue G at both sides of the kiln and with the cross-flues F, and thence with the stack.

L represents the door-frame, preferably constructed of iron, and M designates a series of metallic bands designed to strengthen the walls by encircling them on the outside, and being held together by couplings when they do not quite meet.

Inasmuch as the heat invariably inclines toward the draft side, by arching over the annular flue E and the transverse flue G the heat is thrown in the opposite direction from the stack and secures a perfect equalization and distribution of the drafts, which cannot otherwise be done, and this feature forms a very important part of this invention.

Having thus described our invention, what we claim is—

A kiln for burning earthenware material, clay, &c., having a series of cross-flues extending the entire width of the kiln, a transverse flue extending the entire width of the kiln diametrically opposite to the cross-flues and partially arched over, and an annular or circular flue extending entirely around the kiln on the inside and partially arched over, all of which flues connect, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWARD M. PIKE.
JUSTUS CASTLE.

Witnesses:

A. D. JORDAN,
L. L. SILLIMAN.