

H. B. EVANS.

BRICK-KILNS.

No. 184,359.

Patented Nov. 14, 1876.

Fig. 1.

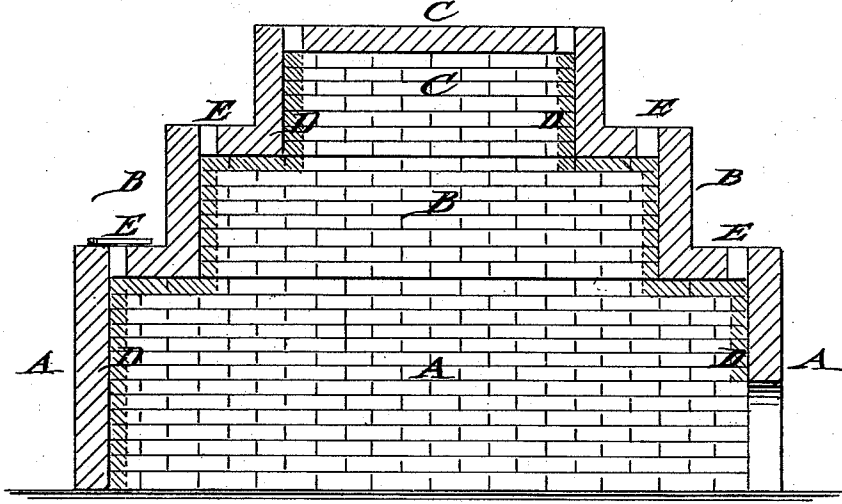
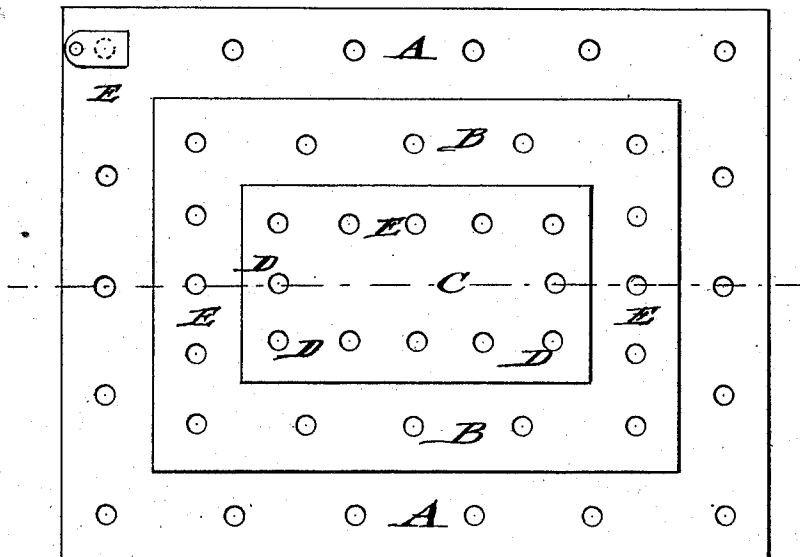


Fig. 2.



WITNESSES:

E. Woff.
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UNITED STATES PATENT OFFICE

HOLLAND B. EVANS, OF ST. CHARLES, MISSOURI.

IMPROVEMENT IN BRICK-KILNS.

Specification forming part of Letters Patent No. 184,359, dated November 14, 1876; application filed August 14, 1876.

To all whom it may concern:

Be it known that I, HOLLAND B. EVANS, of St. Charles, in the county of St. Charles and State of Missouri, have invented a new and Improved Brick-Kiln, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical transverse section of my improved brick-kiln, and Fig. 2 a top view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates, in part, to improvements in the brick kiln granted heretofore, jointly, to me and Ernest G. Kemper, under date of November 9, 1875, and numbered 169,684, so that a more efficient working of the same may be obtained.

The invention consists in the arrangement of a number of permanent corner and side flues, that run from the bottom and arches to the top of the main part of the kiln, and then under the different compartments to the uppermost compartment, and out at the highest point of the same. It consists, further, of a series of shorter flues at the top of the main part and compartments of the kiln, which are closed in suitable manner, as required to adjust the heat in the kiln.

In the drawing, A represents the lower or main part of the kiln, and B and C the compartments, which are graduated in size, so as to diminish from the lower part to the smallest top compartment. This outer or permanent part of the kiln, and especially the lower portion, is constructed in substantial manner, as more fully set forth in the patent mentioned.

In the permanent part of the kiln, corner and side flues D are arranged, that run from the bottom of the kiln between the arches, and some of them from small spaces communicating with the arches, to the top, and under the top and side walls of the compartments out at the top compartment.

If the kiln is not built with graduating compartments, but with sloping or other top shape, the side and corner flues run along the sloping or other top part to the highest point of

the same. These permanent flues heat up thoroughly the top, sides, and bottom parts of the kiln by conducting the heat and gases of combustion to the upper parts.

The top opening of the flues D may be closed by sliding or pivoted covers, or in any other suitable manner, so that the heat may be readily controlled and regulated thereby. Besides the permanent heating-flues, the upper or top parts of the lower or main portion of the kiln, and of the compartments, are arranged with a number of temporary flues, E, that are only extended to a depth of one, two, or three courses or layers of bricks. These flues are opened or covered and closed, either by pivoted or sliding covers or by bricks or otherwise, and the top of the kiln then covered with ashes.

The flues serve to give complete control of the kiln, as the heat may be drawn to any part of it, and reduced by closing at other parts where the heat is too great.

When the bricks are nearly all burned the flues may perhaps be all closed, which may be readily done by what is called "plating"—namely, by placing two layers of bricks over the top, and leaving out a brick from time to time, which is dropped into its place when it is desired to close the temporary flue formed thereby. The permanent flues secure thus a constant supply of heat at the top part of the kiln, while the short temporary flues, distributed over the top of the kiln and compartments, serve to regulate the heat and give complete control over the kiln during the process of burning the bricks.

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

A brick-kiln consisting of graduated compartments A B C, having the flues D E, arranged substantially as and for the purpose specified.

HOLLAND B. EVANS.

Witnesses:

LOUIS H. BREKER,
A. H. EDWARDS.