

I. & G. MARSH.  
Pottery Kiln.

No. 199,080.

Patented Jan. 8, 1878.

Fig. 1.

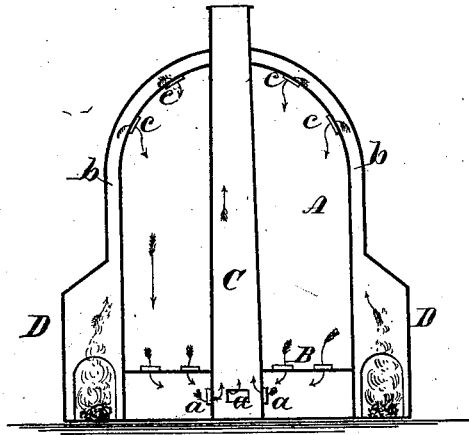
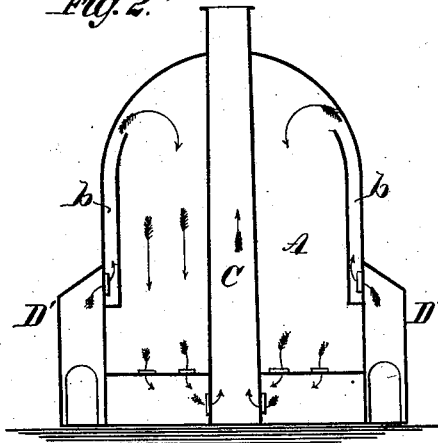


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ISAAC MARSH, OF MILTON, AND GRIGGS MARSH, OF LEWISBURG, PA.

## IMPROVEMENT IN POTTERY-KILNS.

Specification forming part of Letters Patent No. **199,080**, dated January 8, 1878; application filed December 4, 1877.

*To all whom it may concern:*

Be it known that we, ISAAC MARSH, of Milton, in the county of Northumberland and State of Pennsylvania, and GRIGGS MARSH, of Lewisburg, in the county of Union and State of Pennsylvania, have invented a new and Improved Pottery-Kiln, of which the following is a specification:

Figure 1 is a vertical section of our improved kiln. Fig. 2 represents a modified form of kiln.

Similar letters of reference indicate corresponding parts.

The object of our invention is to provide a kiln for baking or burning clay wares of every description.

The invention consists in a kiln having furnaces located at its sides, and provided with flues for conveying the products of combustion to the top of the kiln, and having a central chimney, opening into or connected with the lower part of the kiln, to create a downward draft in the kiln, to more perfectly bake the wares contained by it.

Referring to the drawing, A is a kiln, having a grated or apertured bottom, B, which is arranged a short distance above the ground or bottom proper. A chimney, C, is arranged centrally in the kiln, and has openings *a* below the apertured bottom for receiving the products of combustion. There are furnaces D at the sides of the kiln, which communicate, by means of flues *b*, with the upper portion of the kiln, for conveying thence the products of combustion.

The articles to be baked or burned are placed

upon the apertured bottom B, and the heat from the furnaces is applied first to the upper portion of the kiln. The upward draft in the chimney draws the products of combustion downward, between and around the articles contained by the kiln, through the apertured bottom, and into the openings *a*.

The heat applied in this manner bakes the wares uniformly from the top to the bottom of the kiln.

In Fig. 1 the flues *b* are located outside of the wall of the kiln, and communicate through apertures *c* with the interior of the kiln. In Fig. 2 the furnaces D' are placed outside of the kiln, and the flues *b'* are placed inside and open near the roof of the kiln. The operation is the same in both cases.

The construction of our kiln enables us to effect the burning of the clay with one-half the fuel consumed in furnaces of ordinary construction. We are also enabled to use anthracite coal as fuel.

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

A pottery-kiln consisting of raised grate-bottoms B, central chimney C, having apertures *a* below said bottom, and side furnaces, having flues provided with openings at top, all substantially as shown and described.

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Witnesses:

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