

(No Model.)

T. STIER.

KILN OR MUFFLE FOR POTTERY, &c.

No. 246,238.

Patented Aug. 23, 1881.

Fig. 1.

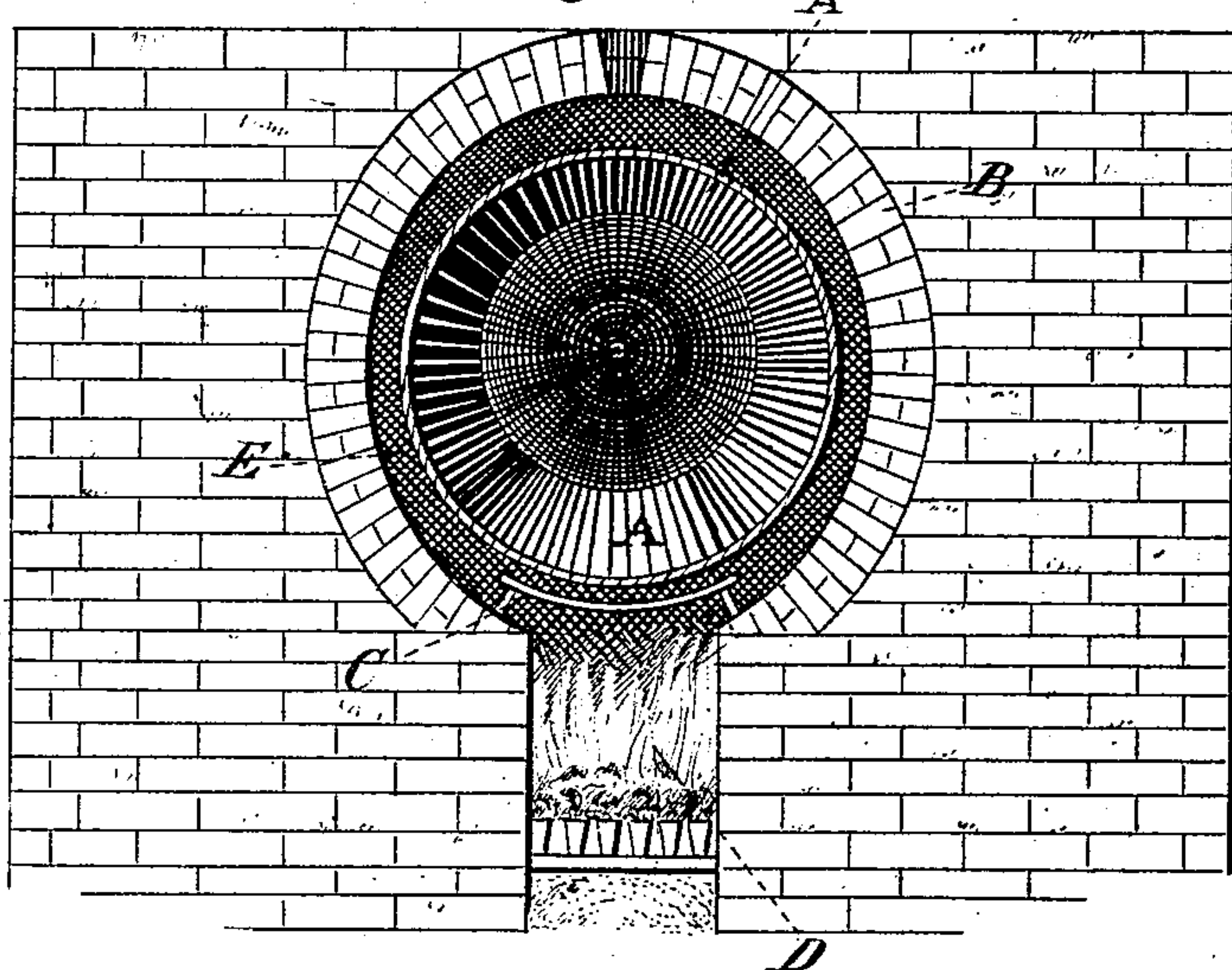


Fig. 2.

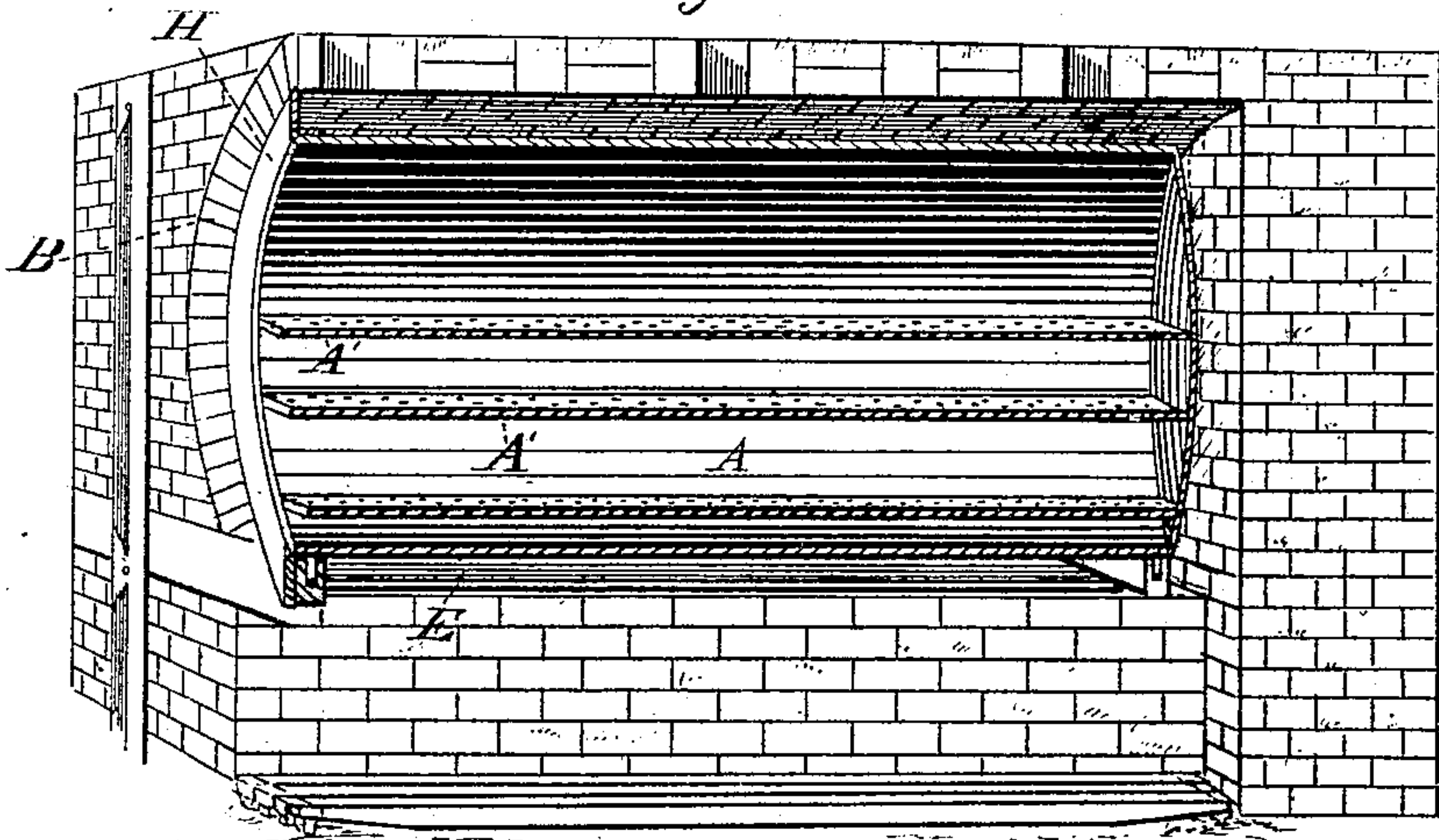
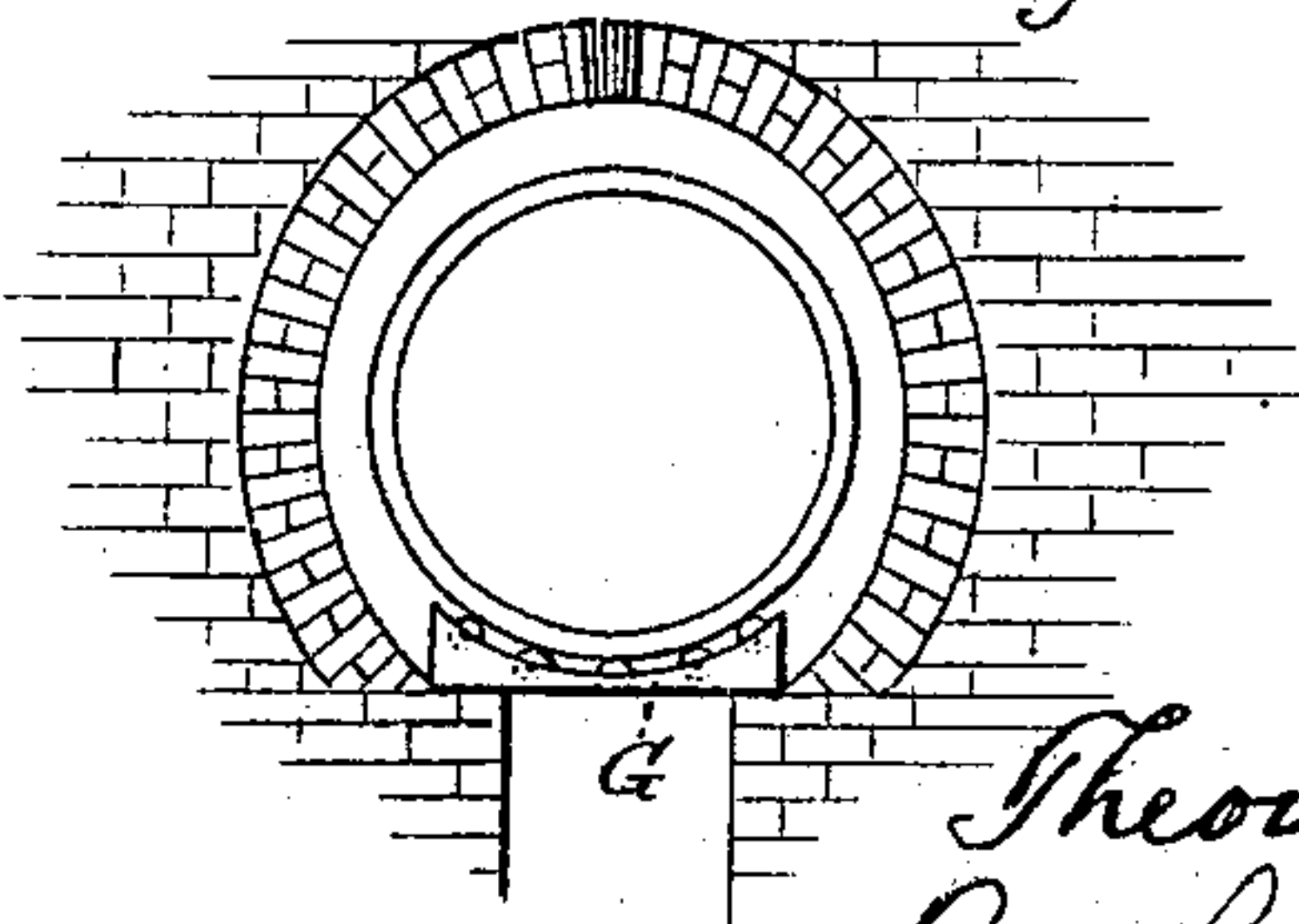


Fig. 3.



WITNESSES

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THEODORE STIER, OF EAST LIVERPOOL, OHIO, ASSIGNOR TO HOMER LAUGHLIN, OF SAME PLACE.

KILN OR MUFFLE FOR POTTERY, &c.

SPECIFICATION forming part of Letters Patent No. 246,238, dated August 23, 1881.

Application filed June 13, 1881. (No model.)

To all whom it may concern:

Be it known that I, THEODORE STIER, of East Liverpool, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Kilns or Muffles for Pottery, &c.; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to kilns, and more especially to that class denominated "muffles," and adapted for burning china, stone, glass, or enameled iron; and it consists in a metallic oven so arranged that it is surrounded except at one end with a heated chamber, and so constructed that it is adapted to be revolved or turned within its heated chamber, and in parts and combination of parts which will more fully hereinafter appear.

In the drawings, Figure 1 is a transverse vertical sectional view of my invention, showing the oval mantel or brick wall which surrounds the muffle, also the furnace and the plate which protects the bottom of the muffle from the direct heat of the furnace. Fig. 2 is a longitudinal vertical sectional view of my device. Fig. 3 is a rear view of my device, showing the base upon which the muffle rests and upon which it turns.

In the said drawings, A is the muffle, which is preferably made circular in form and of iron. C is a plate, preferably of the same form as the muffle, and is interposed between the furnace and the muffle proper to protect the muffle from the direct action of the heat at the point where it rests immediately over the furnace.

D is the furnace or fire-place, which may be constructed in any suitable form or shape.

E is the space between the muffle and the surrounding wall.

G is the base upon which the rear portion of the muffle rests.

It will be noticed in the drawings that the surrounding walls of the circular muffle A are made oval in form, instead of circular. I have discovered that this form more equally dis-

tributes the heat arising from the furnace than if it were of the same shape as the muffle itself.

A' represents shelves within the interior of the muffle, which are adapted to receive and support the ware to be burned. These shelves should be suspended by iron or terra-cotta supports or any other arrangement by which they can be easily removed from the muffle.

H is a flange riveted to the front end of the muffle, and adapted to cover the space E between the muffle and its surrounding wall, and the object of this is to permit the heat arising from the furnace to reach the outer extremity of the muffle, as heretofore a portion of this space E has been filled with brick and mortar.

The operation of my device is as follows: The ware is placed in the muffle upon the shelf A', the opening to the muffle closed, the fires started in the furnace D, when the heat will rise, strike the plate C, and be dispersed, passing through the open space E and around the muffle A through the exit-flue above. This muffle, being circular in form, can be readily revolved upon its base G, and to facilitate the turning the base G may be provided with anti-friction rolls. After the muffle has been fired a number of times, certain portions of it that have been more directly exposed to the heat may become damaged by the excessive heat. By my construction it can be turned a little, so as to present a new surface at the point most directly exposed, and in course of time thus expose every portion of the muffle equally until it is all worn or burned out. The object of the plate or shield is to protect that portion of the muffle directly over the furnace, so that it may wear as long as possible before it is necessary to turn it.

The essential features of my invention are the heating-chamber completely surrounding and enveloping the muffle and the circular muffle so constructed that it may be turned within its chamber.

What I claim is—

1. The combination, with a muffle provided with trays or shelves for supporting china or other articles to be burned, of a heating-chamber completely surrounding the muffle, substantially as set forth.

2. The combination, with a muffle provided with trays or shelves for supporting china or other articles to be burned, said muffle constructed to be turned within the chamber, of
5 a heating-chamber completely surrounding the muffle, substantially as set forth.

3. The combination, with a muffle provided with trays or shelves for supporting china or other articles to be burned, of a heating-chamber completely surrounding the muffle, and an
10 annular flange secured to one end of the muffle and adapted to form the end wall of the heating-chamber, substantially as set forth.

4. The combination, with a muffle adapted
15 to be rotated in its heating-chamber, of removable trays or shelves located in the muffle, substantially as set forth.

5. The combination, with a muffle constructed and adapted for burning china and other articles, of the support G and anti-friction rolls in-
20 terposed between the muffle and said support, substantially as set forth.

6. The combination, with a muffle adapted to be rotated, said muffle constructed and adapted for burning china and other articles,
25 of a plate interposed between the fire-box and muffle, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THEODORE STIER.

Witnesses:

JOSIAH CRAWFORD,
WILLIAM S. FARRELL.