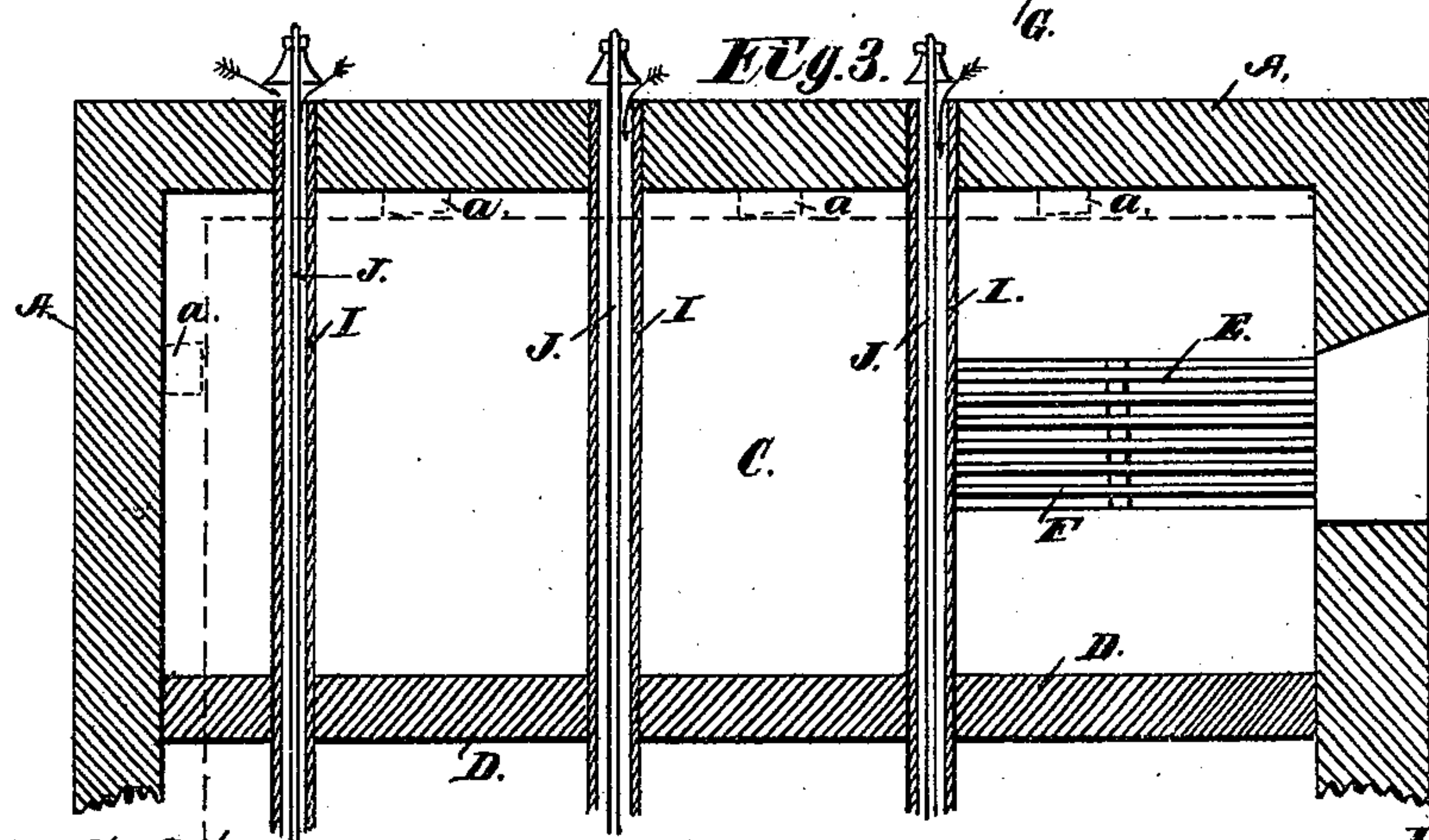
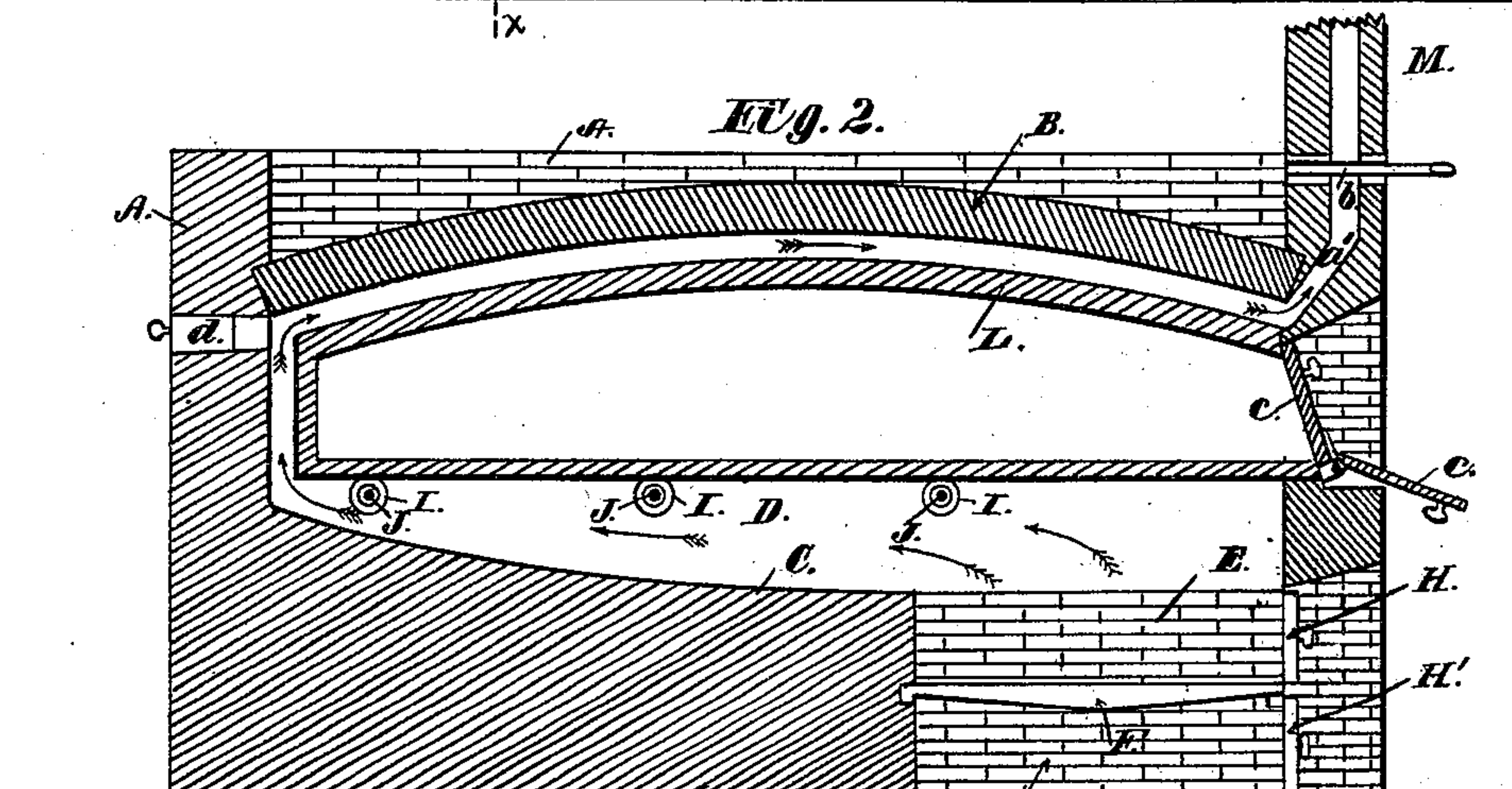
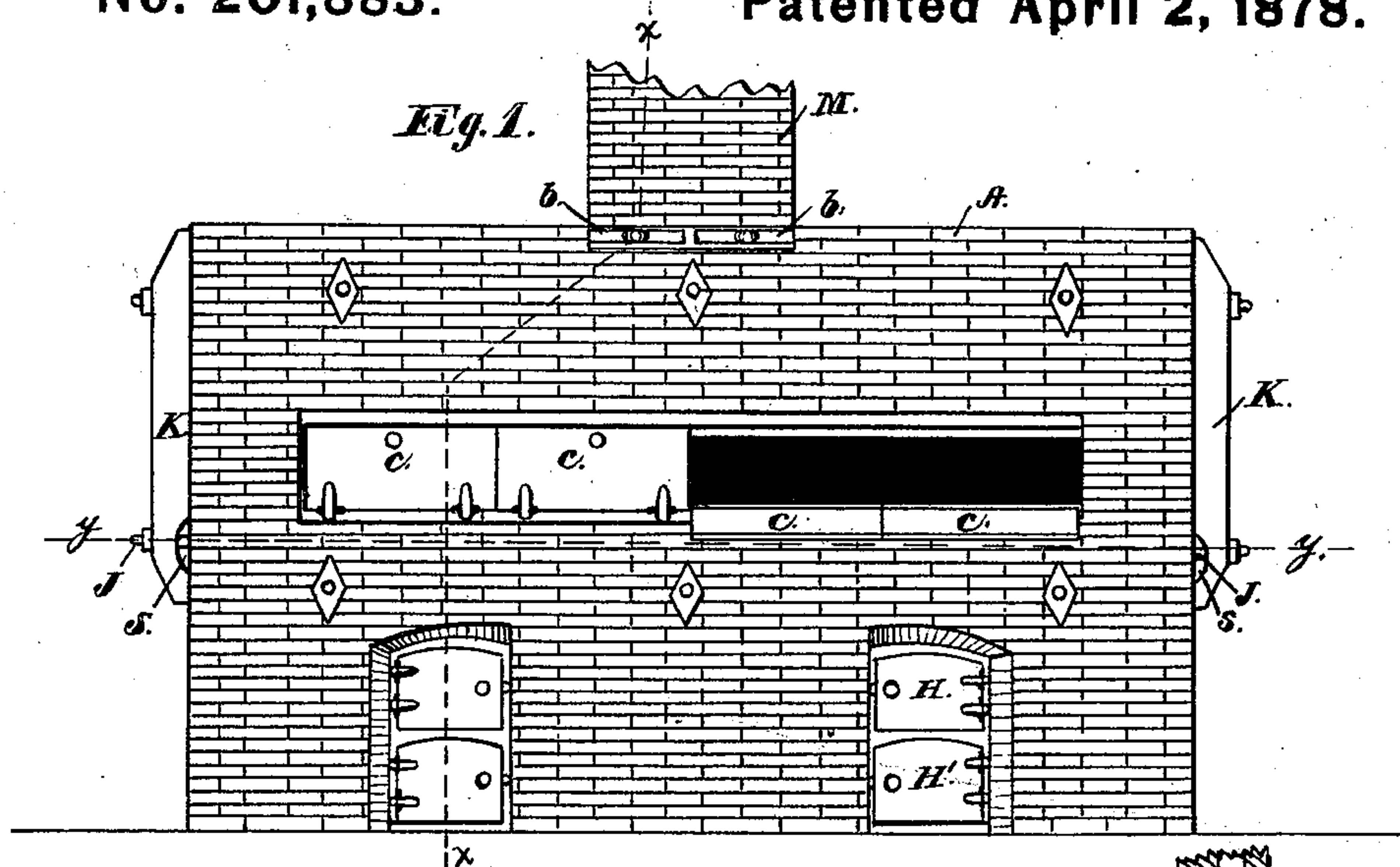


J. KOHNLE.
Baker's Oven.

No. 201,883.

Patented April 2, 1878.



Witnesses,
Chas. M. Peck
Q. E. Grant

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN KOHNLE, OF DAYTON, OHIO.

IMPROVEMENT IN BAKERS' OVENS.

Specification forming part of Letters Patent No. **201,883**, dated April 2, 1878; application filed February 25, 1878.

To all whom it may concern:

Be it known that I, JOHN KOHNLE, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Bake-Ovens; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention belongs to that class of bake-ovens known as "perpetual ovens;" and its novelty consists in the construction and arrangement of the parts, as will be hereinafter set forth.

In the accompanying drawing, Figure 1 is a front elevation of my improved oven. Fig. 2 is a sectional view, in side elevation, through the broken line *x x* of Fig. 1. Fig. 3 is a sectional plan view through the line *y y* of Fig. 1.

The frame of my oven consists of four outside walls, A, having an inner lining of fire-brick, and an arched top or dome, B, also of fire-brick.

C is the furnace-bed, slanting upward in the rear, as seen in Fig. 2. Upon this bed is built the division-wall D, which divides the furnace into two equal compartments, in each of which is a fire-box, E, grate-bars F, and ash-pit G, as shown.

H H' are the doors in the front wall, which afford access to the fire-box and ash-pit. I I are three or more horizontal metal tubes, passing entirely through the furnace and the side walls, and so placed that their tops are flush with the top of the division-wall, through which they pass. Through these tubes brace-rods J extend, and pass through the vertical braces K upon the side walls, to which latter they are connected, as usual, by nuts.

Those portions of the braces K directly over the ends of the tubes are cut away, as at S, Fig. 1, to allow the air to pass freely through the latter. The upper portions of the walls are also braced by rods, in any suitable way.

Upon the tubes I and the division-walls D is built the oven L, whose floor is preferably composed of tiles, while its sides and top are of fire-brick, the latter arched, as shown. At the two sides and at the back of the oven L is a space of from three to four inches between them and the walls, as indicated by the

dotted lines in Fig. 3. This space is divided by brick projections *a* extending at intervals from the sides of the walls, thus forming between them flues. The distance between the top of the oven and the under side of the dome is also from three to four inches.

M is the chimney, located upon the front wall, and having flues *a'* opening into it from the space between the oven and the dome. These flues are controlled by suitably constructed dampers *b*, provided with external handles for operating them.

In the front wall are the oven-doors *c*, which afford access to the oven. In the rear wall, at the back of the oven, I place removable plugs *d*, or registers of any suitable construction.

The advantages and mode of operation of an oven of this construction are as follows:

The heat from the furnaces has free circulation entirely around the oven, so that it may be heated to any requisite ascertained temperature and be kept so, and thus all danger of not sufficiently baking the bread avoided.

The degree of heat may be ascertained by a thermometer suitably connected to the oven.

By means of the vents *d* and the drafts and dampers, the degree of heat may be regulated to a nicety.

By the construction of the oven-door in several sections, it is not necessary to open the whole front of the oven when the dough is put in or the bread removed. In this way I make the whole of the oven accessible, without the disadvantage of cooling it off every time it becomes necessary to open it.

By leaving the ends of the tubes on which the oven rests open, air can circulate through and prevent their warping with the heat.

I am aware that in the construction of bake-ovens it is not new to locate the oven-chamber over the furnace, with passages around and above it for the free circulation of the heat; and also that it is not new to provide more than one door for ingress to the oven, and consequently do not broadly claim such construction.

Having thus fully described my invention, I claim as follows:

1. In an oven, the supporting-tubes I, pass-

ing through the outer walls and open at their ends to permit the free circulation of the outside air, substantially as set forth.

2. The herein-described bake-oven, consisting of the outer walls A, dome B, furnace E, division-wall D, tubes I, oven-chamber L, vents *d*, and flues *a'*, and dampers *b*, the whole con-

structed and arranged substantially as specified.

Witness my hand this 18th day of February, A. D. 1878.

Witnesses:

JOHN KOHNLE.

CHAS. M. PECK,

WM. RITCHIE.