

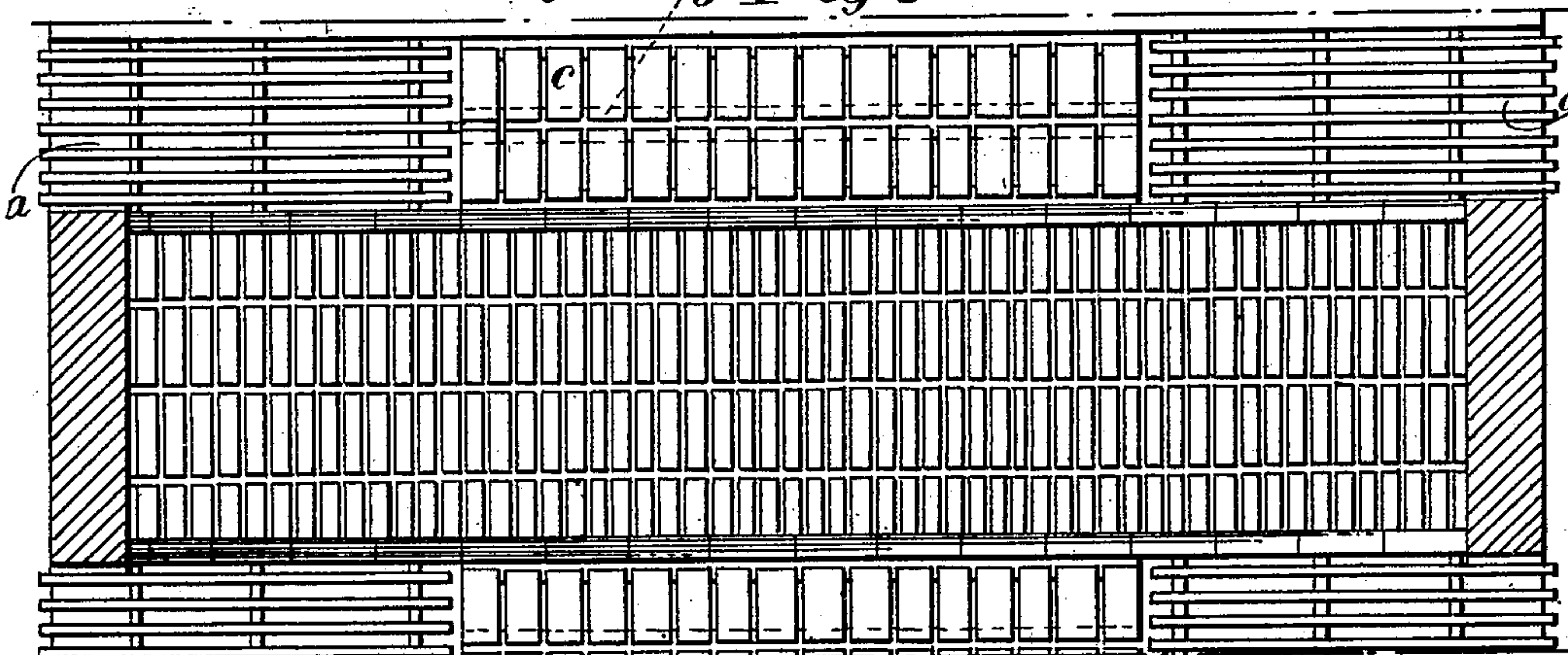
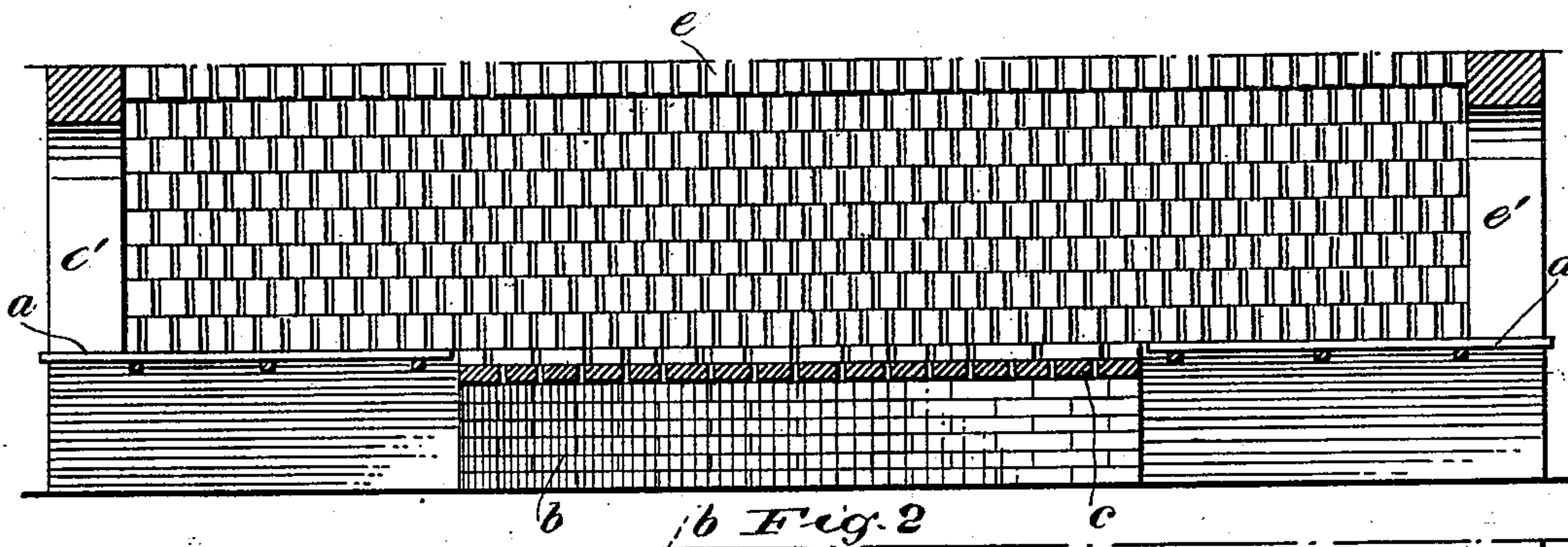
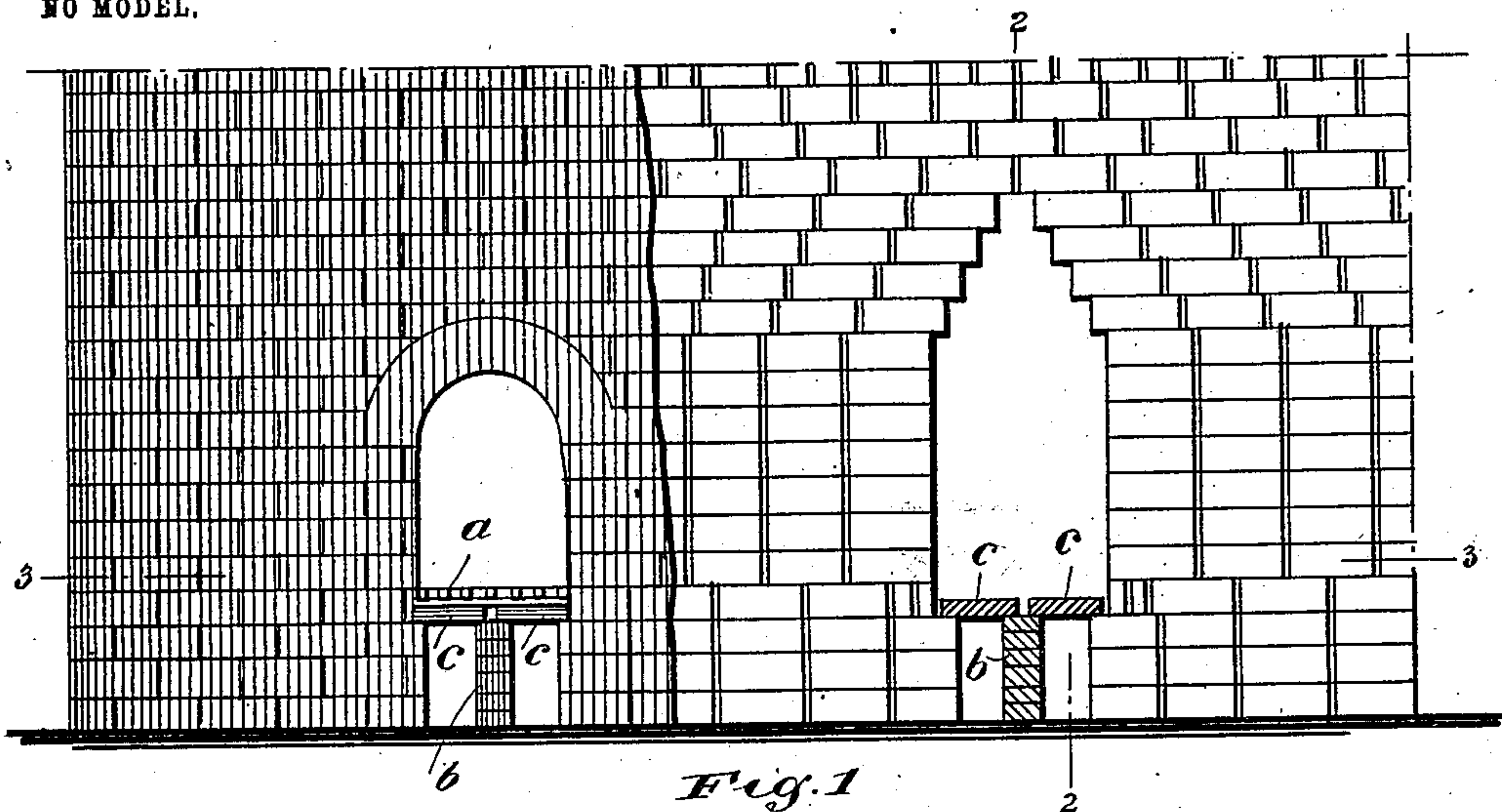
No. 723,620.

PATENTED MAR. 24, 1903.

J. PECK.  
BRICK KILN.

APPLICATION FILED MAY 23, 1902.

NO MODEL.



· **WITNESSES:**

Witnesses:  
John Ascription  
Isaac B. Owens.

Fig. 3

**INVENTOR**

*John Peck*

BY

Wm

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

JOHN PECK, OF HAVERSTRAW, NEW YORK.

## BRICK-KILN.

SPECIFICATION forming part of Letters Patent No. 723,620, dated March 24, 1903.

Application filed May 23, 1902. Serial No. 108,678. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN PECK, a citizen of the United States, and a resident of Haverstraw, in the county of Rockland and State of New York, have invented a new and Improved Brick-Kiln, of which the following is a full, clear, and exact description.

The object of this invention is to construct a brick-kiln in which the draft through the arches will be more effective than in the usual construction, thus enabling fuel such as oil and soft coal to be used advantageously.

This specification is an exact description of one example of my invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a view showing part of the kiln in front elevation and illustrating another part broken away to show the interior construction of the arch. Fig. 2 is a vertical section on the line 2 2 of Fig. 1, and Fig. 3 is a horizontal section on the line 3 3 of Fig. 1.

*e* indicates the arch, which may be of the usual form and which has at each end a stoking door-opening *e'*, extending from the ground or bottom of the arch upward.

The invention consists in locating in the middle of the arch *e*, intermediate the end grate-bars *a*, a sort of grate built up of brick arranged in checker-work, and according to the construction here shown consisting of a supporting-pier *b*, on which are laid the top bricks *c*, the said top bricks being placed transversely and being spaced from each other, so as to allow the draft to pass freely between them. The grate-bars *a* are of metal and of the usual construction and extend from the checker-work to and into the door-openings *e'*. These bars, together with the checker-work formed of the bricks *c* and *b*, fill the entire length of the arch.

In burning, the kiln fire is started on the grate-bars *a*, the firemen stoking simultaneously through the openings *e'* and the fires at the ends of the arch gradually worked inward toward the center until the two fires

meet, and the whole arch will then be under the action of the fire. The advantage of this arrangement is that the bricks *b* and *c* form practically a grate, and the fire may be burned thereon as effectively as on the iron bars *a*, while at the same time the expense of maintaining the iron bars is avoided, for if iron grate-bars be extended entirely through the arch they will soon be burned away at the middle portion of the arch, which is too far from the mouths to be cleaned, because it is extremely difficult, if not impossible, for a workman to rake out the ashes from the middle of the arch or slice the fire, and the ashes accumulating under and on top of the iron grate at the middle of the arch will cause the bars to be burned away. The brick employed to make the grate in the middle of the arch are, however, indestructible. In building the kiln to form this checker-work in the middle of the arch I employ previously-burned brick, since "green" brick have not the strength necessary for this purpose. By constructing the kiln in this manner I am enabled to maintain a fire throughout the length of the arch, and I avoid the necessity of frequently changing the grate-bars.

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

1. A brick-kiln having a grate at each end of the arch and having in the middle portion of the arch an open or checker work of brick to which the grate-bars extend, for the purpose specified, said brickwork being formed of a pier running longitudinally along the arch, and of top bricks placed transversely on the pier and extending horizontally from each other to the walls of the arch, said top brick being spaced from each other to admit a circulation of air between them.

2. A brick-kiln having a fire-arch running therethrough from wall to wall and having at each end a door-opening extending continuously from the ground or bottom of the arch upward, an open or checker work of brick laid in the middle portion of the arch and forming a brick grate, and iron grates extending from the respective ends of said

checker-work of brick, outward to and into  
said door-openings at the ends of the arch  
and at an elevation below the tops of said  
openings, whereby to permit continuous firing  
5 through each door-opening equally upon each  
of said iron grates.

In testimony whereof I have signed my

name to this specification in the presence of  
two subscribing witnesses.

JOHN PECK.

Witnesses:

J. HEFFERNAN,  
ISAAC B. OWENS.