

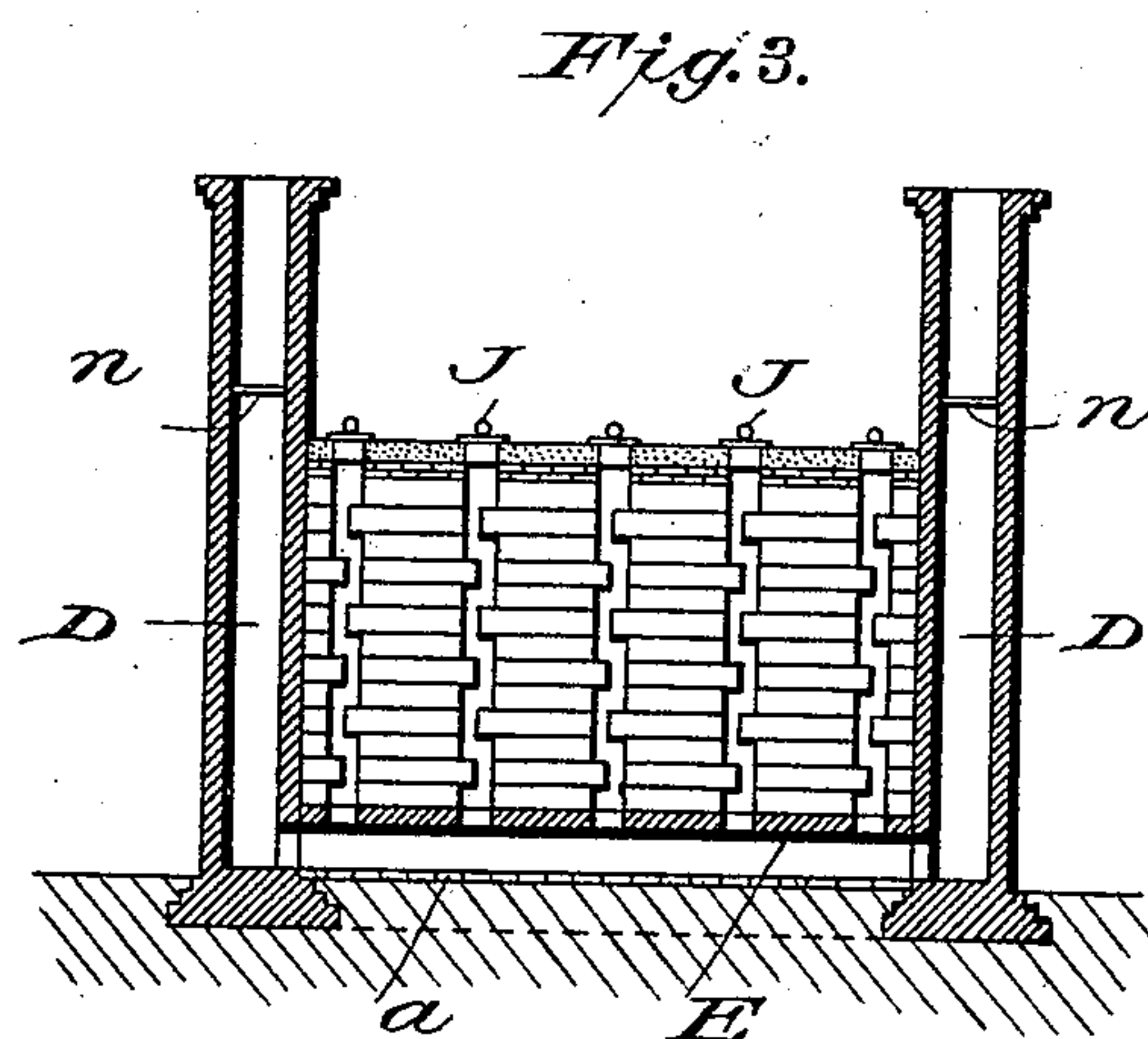
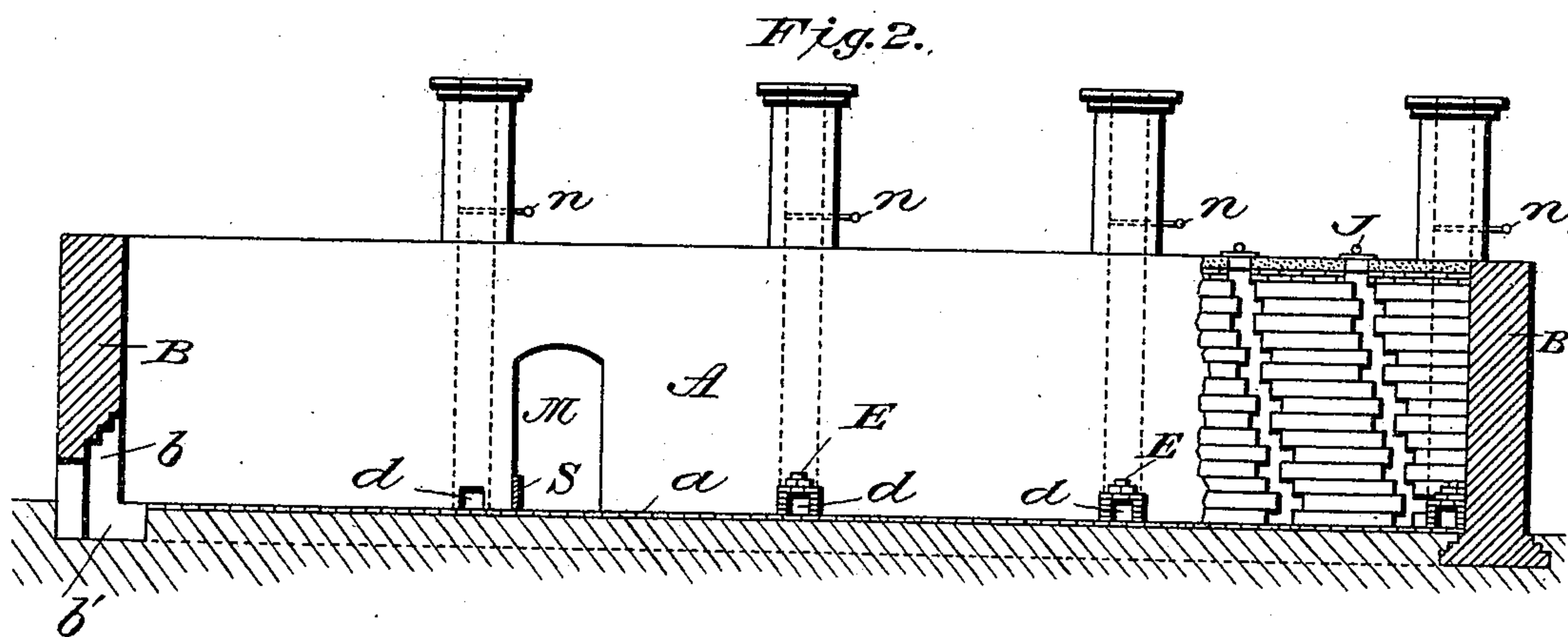
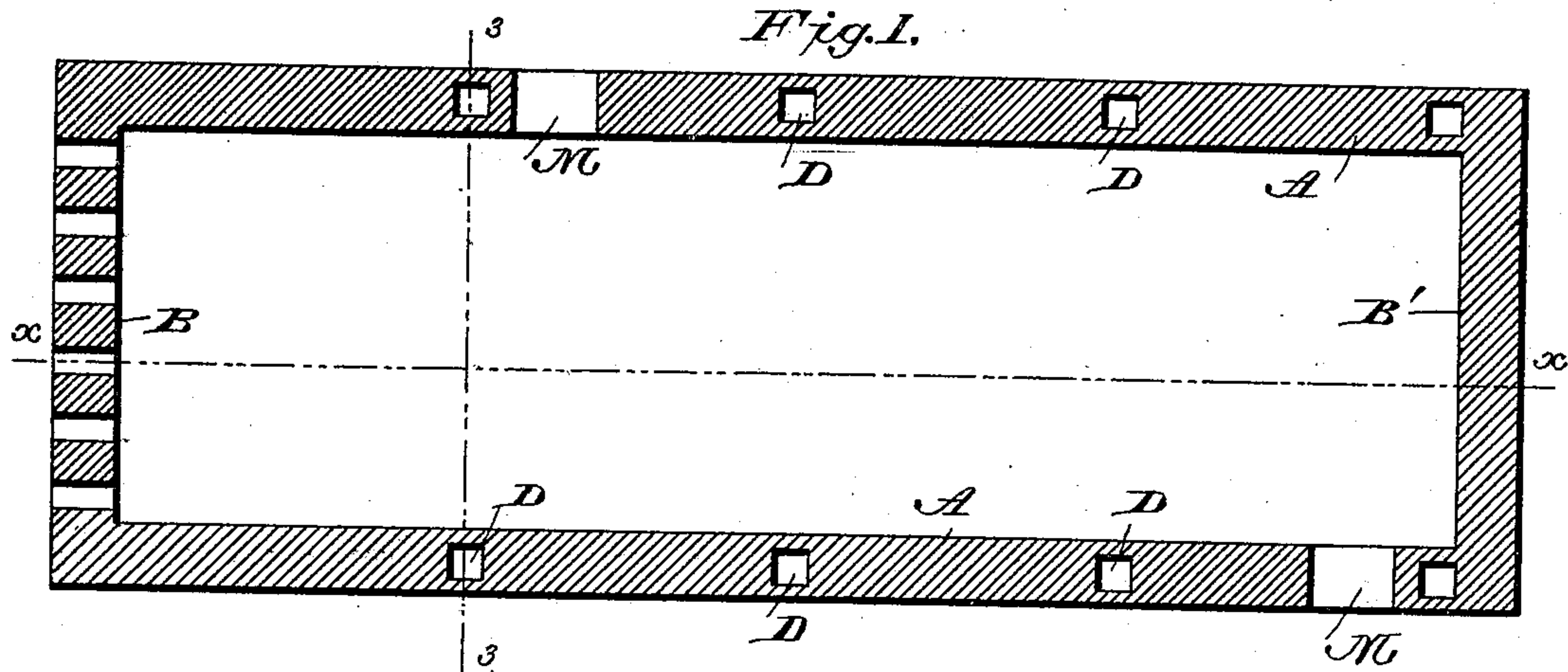
(No Model.)

2 Sheets—Sheet 1.

J. CONLEY.  
BRICK KILN.

No. 513,034.

Patented Jan. 16, 1894.



Witnesses *L. S. Elliott.*  
*T. M. Johnson*

*Joseph Conley.*  
Inventor

— *by* *Wm. H. Johnson* Attorney

(No Model.)

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Fig. 5.

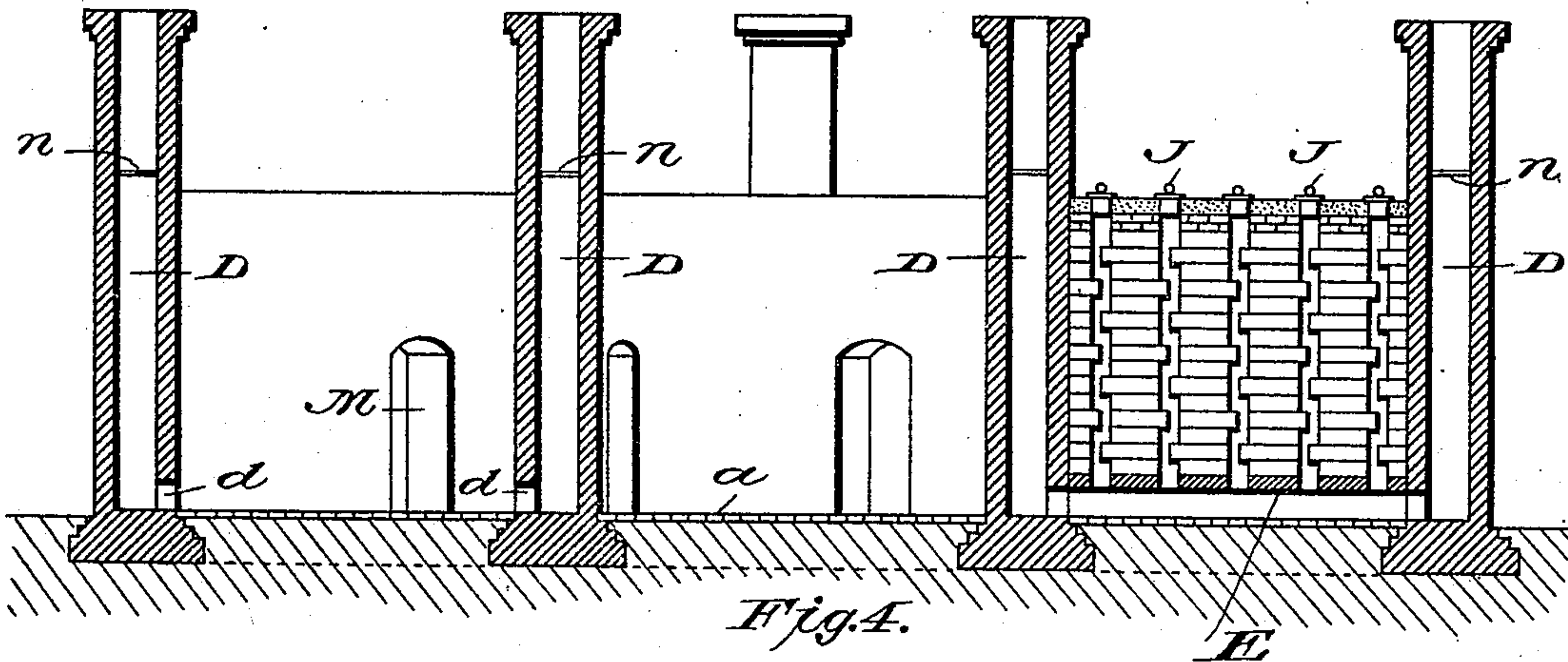
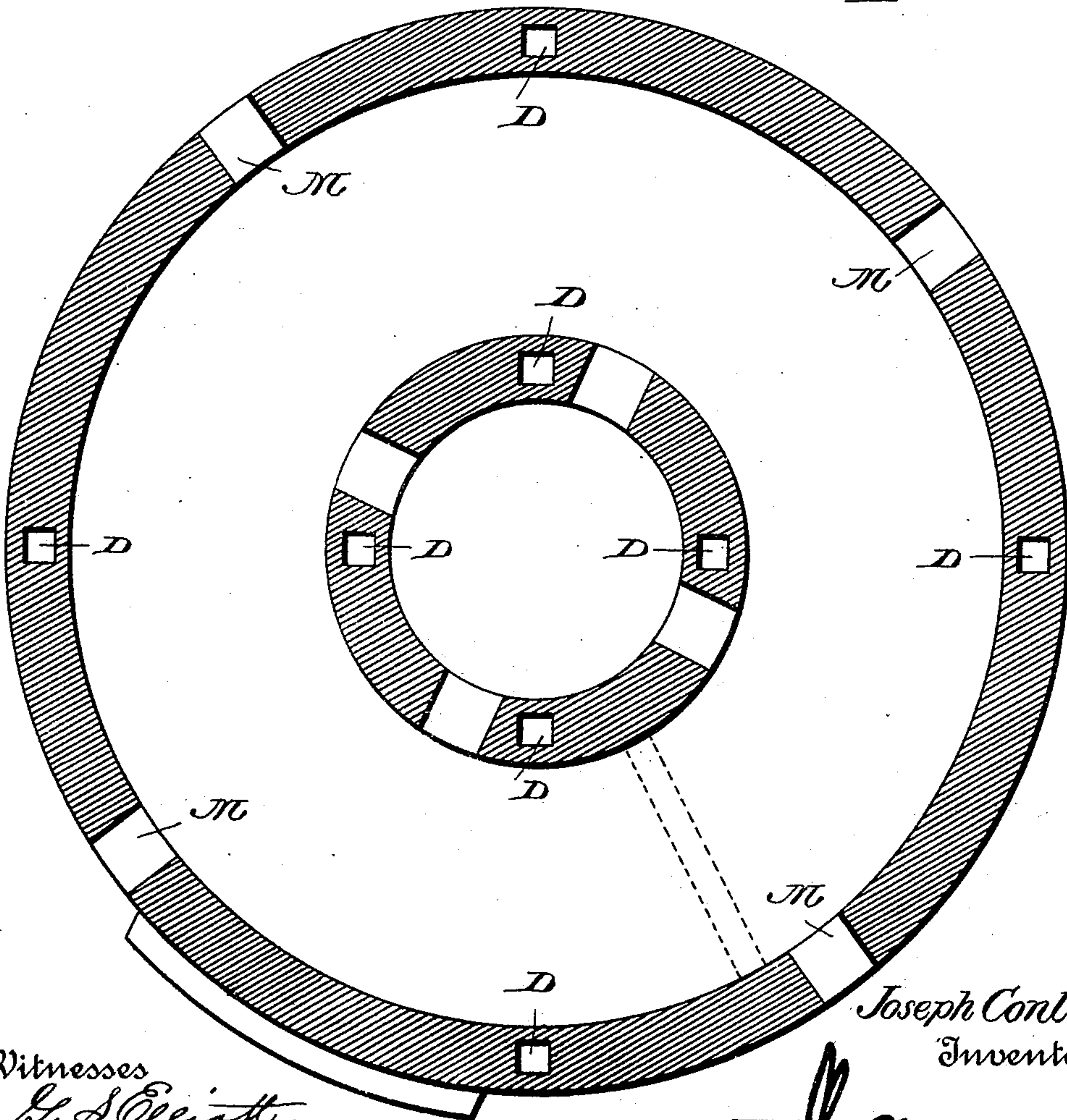


Fig. 4.



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Attorney



# UNITED STATES PATENT OFFICE.

JOSEPH CONLEY, OF ST. JOSEPH, ASSIGNOR TO THE CONLEY & WOLFE  
IMPROVED KILN COMPANY, OF TARKIO, MISSOURI.

## BRICK-KILN.

SPECIFICATION forming part of Letters Patent No. 513,034, dated January 16, 1894.

Application filed February 4, 1893. Serial No. 460,973. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH CONLEY, a citizen of the United States of America, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Brick-Kilns; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a kiln which can be readily constructed, and will be effective in operation.

In the accompanying drawings, Figure 1 is a plan view. Fig. 2 is a longitudinal sectional view, the bricks being shown stacked in a part of the kiln. Fig. 3 is a transverse section on the line 3—3 of Fig. 1. Fig. 4 is a plan view of a modification. Fig. 5 is a sectional view of the modification.

A A designate the side walls of the kiln, B and B' the front and rear walls, and *a* the floor which rests upon the ground. The end wall, B, is provided with a series of furnaces *b*, beneath which are ash-pits *b'*.

The side walls have flues D D built therein, which are extended above the top of the kiln to form chimneys, and these flues connect with the interior of the kiln by apertures or openings *d*. It will be noted that these vertical flues or chimneys in the side walls are located on transverse lines, or directly opposite each other, so that the cross-flues E, E, which are built to rest upon the floor *a*, will connect with the openings *d* at each end. These cross flues are provided with suitable openings which connect with the interior of the kiln, so that the products of combustion may pass into the cross-flues and out through the vertical flues or chimneys in the side walls. The side walls are provided with doorways M M, which are closed in the usual manner when the kiln is in operation.

In practice a removable partition, preferably of paper, is used, which is attached at its lower end to a board S, by which it can be re-

moved through the doorways M. M. when it has served its purpose; that is, to divide the kiln into sections so that the green bricks may be burned progressively. The flues or chimneys D are provided with dampers *n*, which are operated from the top of the kiln.

J designates the fire-pots beneath which are the stoke-holes, the fuel being fed from said pots upon the projecting ends of the bricks, which are preferably stacked as shown in Figs 2 and 3.

In Figs. 4 and 5 I have shown my invention applied to a circular kiln.

In operation the bricks are stacked in the kiln in the usual manner, and the first section cut off by a removable partition. The fire is then started in the furnaces and fuel fed upon the bricks by means of the fire-pots. After the fire is started the kiln is practically a down-draft kiln, the products of combustion being drawn down into the cross-flues to the chimneys. If the fuel is not burning regularly the draft can be regulated by the dampers *n*, or cut off to cause the heat to travel beyond the partition into the next section of the kiln.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a continuous down-draft brick-kiln, or one in which the fuel is fed upon the bricks to be burned, the combination, of the permanent side walls having vertical flues built entirely within the same and chimneys which extend above the side walls and form continuations of said flues, the vertical flues communicating with the interior of the kiln above the floor level at points directly opposite each other, horizontal flues positioned above the floor level of the kiln for connecting the opposite vertical flues with each other, and a furnace or series of furnaces in one of the end walls of the kiln, substantially as shown, and for the purpose set forth.

2. A continuous down-draft brick-kiln, comprising a permanent structure having side walls with vertical flues built therein which communicate with the interior of the kiln by means of openings *d* *d* which are above the floor level thereof, said side walls having apertures M, a series of furnaces at one end of

the kiln, transverse flues connecting the opposite vertical flues to each other, said transverse flues having openings for establishing communication with the interior of the kiln  
5 and the vertical flues, the vertical flues having continuations or chimneys which extend above the top of the side walls, and dampers located in the chimneys so as to be oper-

ated from the top of the kiln, substantially as shown. 10

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH CONLEY.

Witnesses:

H. J. NELSON,

W. O. MILLS.