

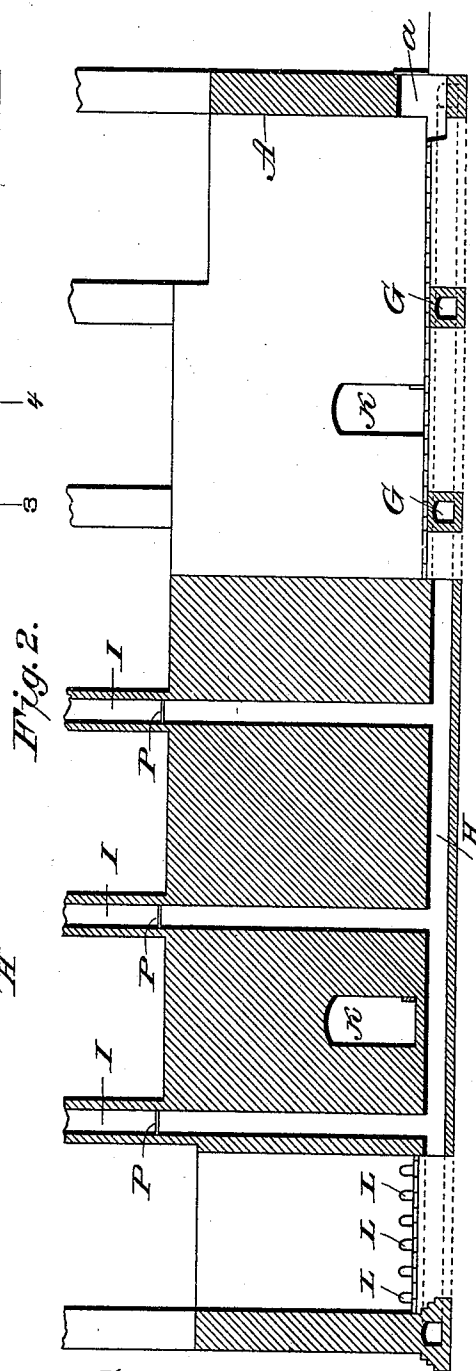
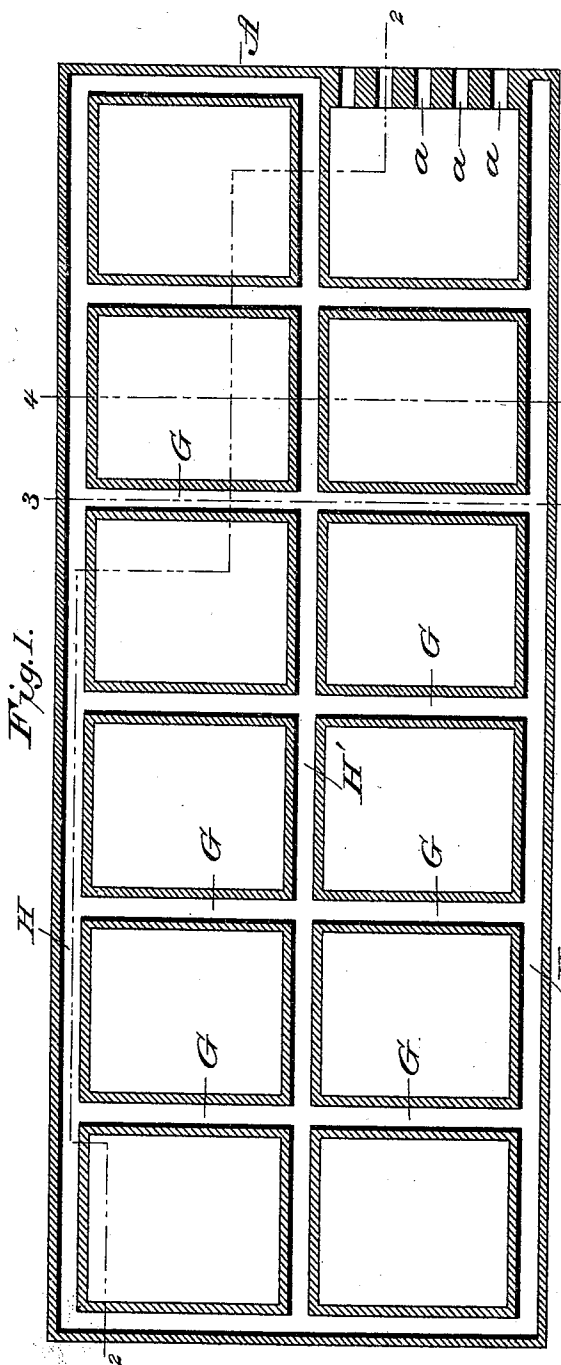
(No Model.)

2 Sheets—Sheet 1.

J. CONLEY.
BRICK KILN.

No. 513,037.

Patented Jan. 16, 1894.



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

Joseph Conley.

Inventor

by *[Signature]*
Attorney

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

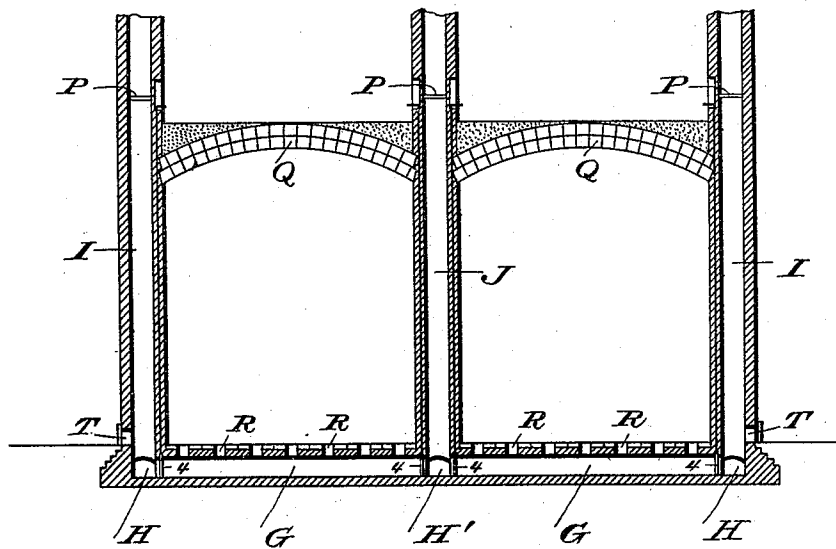
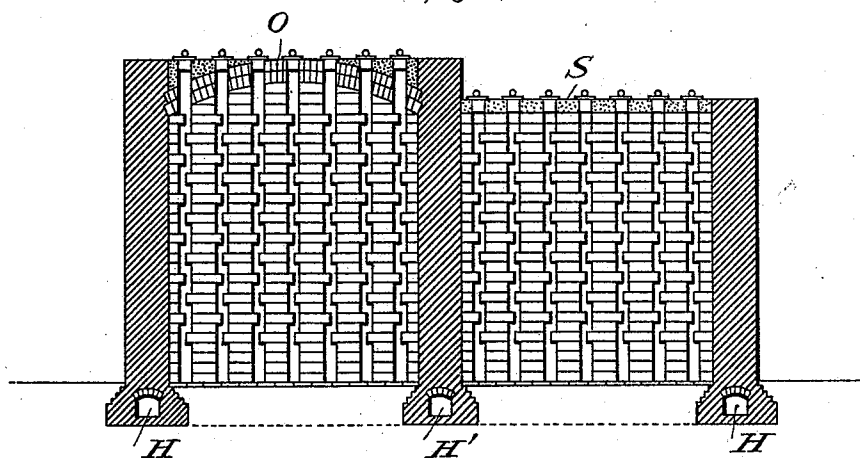


Fig. 4.



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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. 513,037, dated January 16, 1894.

Application filed February 4, 1893. Serial No. 460,976. (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 of rectangular form and improved construction, whereby I am enabled to continuously burn the bricks or wares which are placed within the kiln; and it consists in the construction and arrangement of the flues, chimneys and furnaces, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view, showing the arrangement of the horizontal flues. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is a sectional view on the line 3 3. Fig. 4 is a transverse sectional view on the line 4 4, one of the kiln sections being shown with an arched crown while the other has a flat top.

The kiln is preferably an elongated rectangular structure comprising end and side walls, and a central wall extending lengthwise of the kiln to near each end thereof.

A part of the end wall A is provided with a series of furnaces, *a*, the ash-pots of which are below the floor level of the kiln, and the base portion of this wall, not occupied by the furnaces, is provided with an underground flue. The kiln is also provided with a central longitudinal underground flue, which connects with flues located under the side walls by transverse flues, as shown. It will thus be noted that each section of the kiln is provided with underground flues. At each juncture of the transverse flues with the longitudinal flues there is a vertical flue or chimney.

H designates the flues located beneath the

side walls, and H' the flue located beneath the central wall and extended at each end to meet the flues under the end walls.

I designates the vertical flues or chimneys in the side walls, and J the vertical flues or chimneys in the central wall.

Each section of the kiln is provided with a doorway K, the base of said doorways being on a level with the floor, and through these doorways are placed the temporary partitions.

L L designates short flues, which connect the longitudinal flues H with the interior of the kiln, and these short flues are located in the side walls at diagonally opposite corners of the structure and are utilized for drawing the fire from one end section of the kiln across to the other, so that when the bricks stacked in the sections on one side of the center wall have been burned the fire can be returned to burn the bricks stacked in the sections on the other side of said center wall, and thus continued around the kiln as many times as desired. Each vertical flue or chimney has a damper or cut off, P, which is preferably operated from the top of the kiln, and the transverse flues G are also provided with dampers near where they meet the vertical flues or chimneys, the rods operating said dampers, 4, extending to the top of the kiln so as to be operated thereat.

The vertical flues or chimneys I are provided with short flues or openings, T, which lead outside of the kiln above the ground level, where they are provided with suitable doors. The transverse flues, G, have openings, R, which communicate with the interior of the kiln.

The kiln may be provided with an arched crown, as designated by Q, or with a flat top, as S; but in both instances the tops are provided with apertures and fire-pots, through which the fuel can be fed upon the projecting ends of the bricks, as set forth in my prior patents.

The kiln constructed as hereinbefore described is designed to form a permanent structure, and the flues in addition to providing means for regulating and directing the draft in the kiln so that the wares can be burned

continuously, also provide means for cooling the side walls should they become excessively heated at any particular place.

In this kiln the fires are started in the furnaces located on one side of the central longitudinal wall and continued around the kiln by feeding in the fuel from the fire-pots at the top and properly operating the dampers; thus doing away with the expense of starting the fires every time the kiln is refilled. The rods which operate the dampers being located at the top of the kiln can be operated by the one that attends to the fire-pots. It will also be noted that the kiln hereinbefore described is not only a continuous kiln but a down-draft one.

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

1. In a brick-kiln, an elongated rectangular structure having a series of furnaces and a central partition wall, of longitudinal and transverse underground flues below the floor level of the kiln, the transverse flues communicating with the longitudinal flues and with vertical flues or chimneys, substantially as shown, and for the purpose set forth.

2. In a brick-kiln, the combination, of the side longitudinal flues and a central longi-

tudinal flue, of transverse flues and vertical draft-stacks located at the juncture of the transverse flues with the longitudinal flues, substantially as shown, and for the purpose set forth.

3. In a brick-kiln, the combination, of the outer longitudinal walls and end walls, having underground flues and starting furnaces as shown, of a central longitudinal flue intersecting the transverse flues, short flues for causing a draft across each end of the kiln, and vertical flues or chimneys communicating with the transverse and longitudinal flues, substantially as shown, and for the purpose set forth.

4. In a brick-kiln, the combination, of the longitudinal flues H and H', of transverse flues G and vertical flues or chimneys communicating therewith, the transverse flues opening into the kiln, and dampers which are adapted to intersect the horizontal and vertical flues, substantially as shown, and for the purpose set forth.

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

JOSEPH CONLEY.

Witnesses:

H. J. NELSON,
W. O. MILLER.