J. KINGSBURY.

Brick-Kiln.

No. 207,875. Patented Sept. 10, 1878.

Fig. 1.

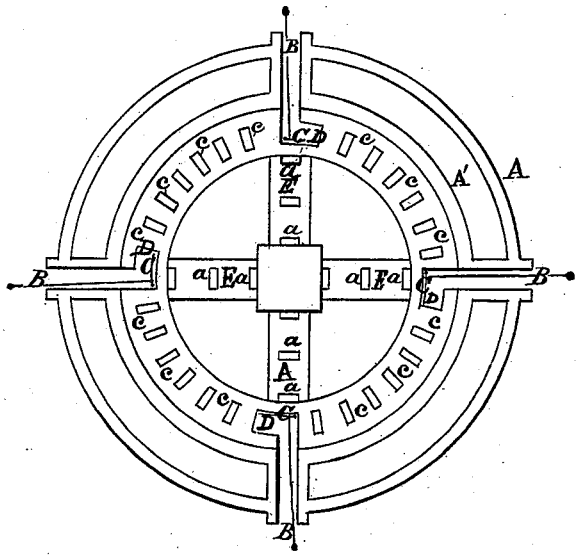


Fig. 2.

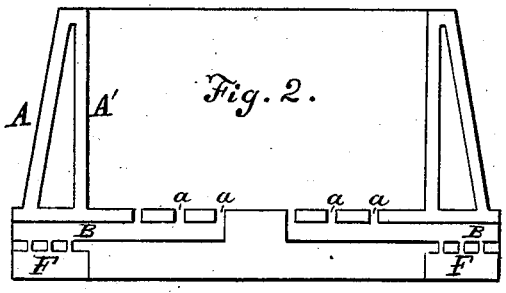


Fig. 3.

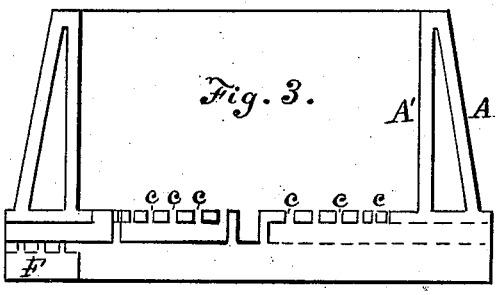
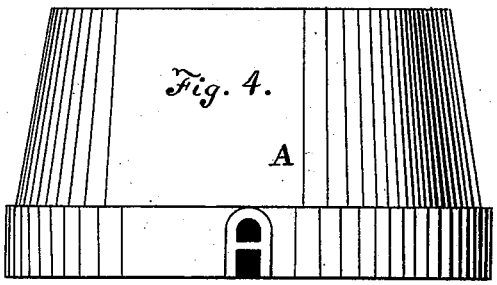


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN KINGSBURY, OF GREENVILLE, ALABAMA.

IMPROVEMENT IN BRICK-KILNS.

Specification forming part of Letters Patent No. **207,875**, dated September 10, 1878; application filed June 14, 1878.

To all whom it may concern:

Be it known that I, JOHN KINGSBURY, of Greenville, in the county of Butler and State of Alabama, have invented certain new and useful Improvements in Brick-Kilns; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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.

Figure 1 is a sectional plan view of a brick-kiln embodying the improvements of my invention. Fig. 2 is a vertical sectional view of the kiln taken through the center of the kiln. Fig. 3 is a vertical sectional view of the kiln taken a little back of the center, and Fig. 4 is an exterior view of the kiln.

In the brick-kiln as ordinarily constructed it is necessary to build arches for fire-boxes, thus wasting a large percentum of the bricks by bringing them in direct contact with or too near the fire. Besides the arches are quite numerous, and require the attention of several persons during the operation of burning the kiln; and, further, when the bricks have been burned they are not uniform in color, strength, or soundness. To obviate these defects and to produce bricks of uniform color, strength, and soundness at a far less expense than has heretofore been done are the objects of my invention; and to these ends it consists in the improvements in the construction of the kiln hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings similar letters of reference indicate like parts in the invention.

The outer wall, A, is twelve inches in thickness, is of brick, and inclines, as shown in Figs. 2, 3, and 4. The inner, A′, is of the same thickness, and is vertical. The intervening space between said walls A and A′ is filled with earth. The kiln is circular in form, and its base is underground, the floor being on a line with the bottom of the space between the walls A and A′. Four fire-boxes, B, ninety degrees apart at their entrances, have flues E extending inwardly to within about two feet of the center of the kiln.

A flue, D, in the form of the arc of a circle, leads from the left side of each fire-box B and extends to but does not connect with the adjacent fire-box B on its left.

The flues E have openings *a*, and the flues D have openings *c*, leading up through the floor of the kiln. In the rear of the fire-boxes B are dampers C, which, when closed, throw the heat into the flues D, and cause it to enter the kiln through the openings *c*, and when open cause the heat to penetrate to nearly the center of the kiln and enter it through the openings *a*.

Any one of the dampers may be closed and the others left open, so that the heat may be directed to any desired part of the kiln, as will be readily seen.

It needs but one man to attend to the burning of a kiln thus constructed when it contains as many as one hundred thousand bricks; and if the bricks are properly set in the kiln they will be of uniform color, strength, and soundness. No cold air can enter the kiln, because the ash-pits F, fire-boxes B, and flues D and E are all underground, and the air must necessarily become heated before it can enter the kiln through the openings *a* and *c* in the floor.

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

1. In a brick-kiln, the combination of a series of segmental flues and radial flues, arranged in pairs, each segmental flue being adapted to be thrown into connection with its radial flue by operating a damper, C, to close the radial flue beyond its junction with said segmental flue, substantially as and for the purpose set forth.

2. A circular brick-kiln having walls A A′, provided with an intervening space filled with earth, as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN KINGSBURY.

Witnesses:
R. Y. PORTER,
J. H. FLOUERS.