

N. LODGE.  
Kiln for Burning Brick, &c.

No. 213,216.

Patented Mar. 11, 1879.

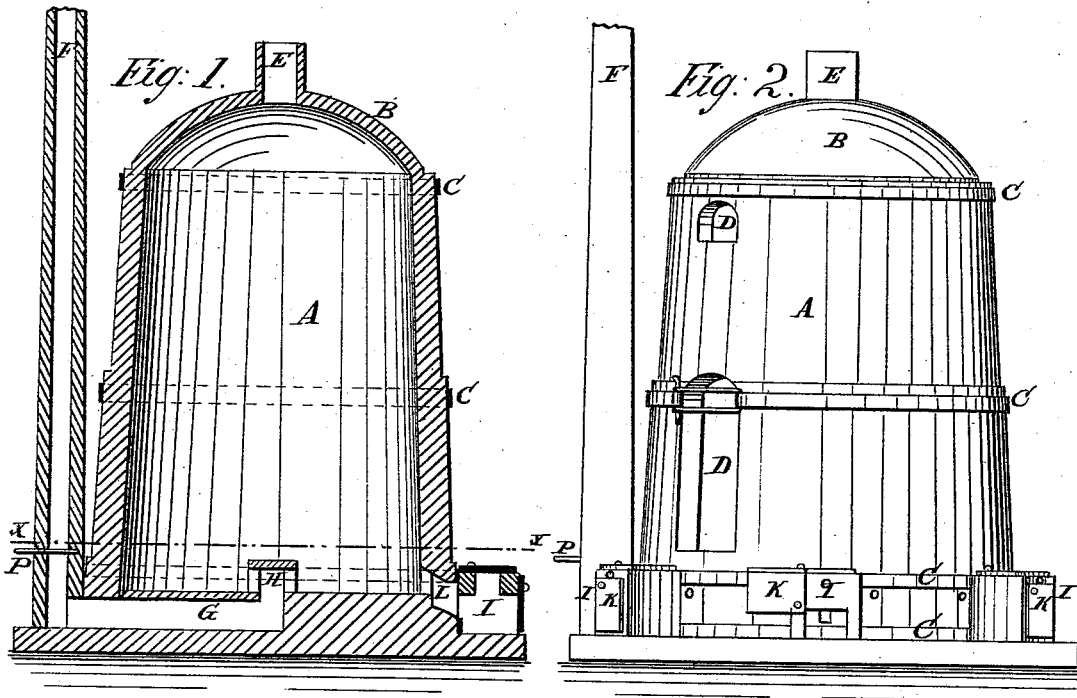
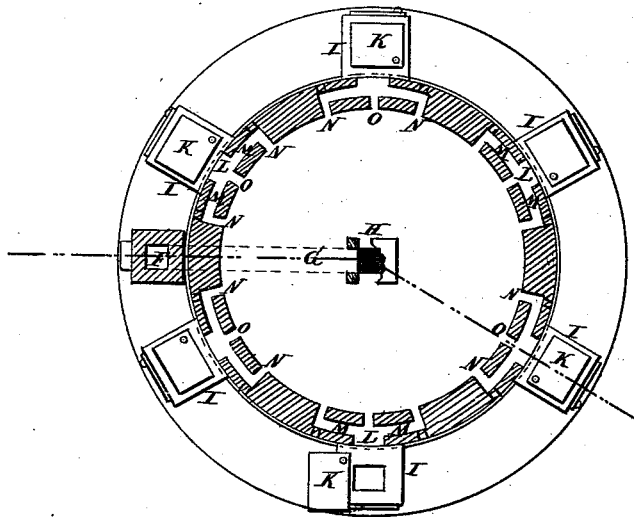


Fig. 3.



WITNESSES:

*Achilles Schuhl.*  
*Ch. Sedgwick*

INVENTOR:

*N. Lodge*  
BY *Musler & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

NICHOLAS LODGE, OF NAPERVILLE, ASSIGNOR TO HIMSELF, JOSEPH JACKSON, OF MILLINGTON, AND GEORGE C. GILLET AND RUFUS GRISWOLD, OF AURORA, ILLINOIS.

## IMPROVEMENT IN KILNS FOR BURNING BRICKS, &c.

Specification forming part of Letters Patent No. **213,216**, dated March 11, 1879; application filed January 14, 1879.

*To all whom it may concern:*

Be it known that I, NICHOLAS LODGE, of Naperville, in the county of Du Page and State of Illinois, have invented a new and Improved Kiln, of which the following is a specification:

Figure 1 is a vertical section of the kiln. Fig. 2 is an upright view of the same. Fig. 3 is a cross-section through line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates especially to a novel arrangement of fire-places, flues, and chimneys in kilns for burning bricks, tiles, or other earthenware, whereby peculiar advantages are secured.

In the drawings, A represents the body of the kiln, which is made of circular shape. B is the arched or domed roof; C C the strengthening bands or straps on the outside of the structure, and D D the inspection and charging and discharging openings.

From the center of the roof springs a low chimney, E, while outside of the body of the kiln is a higher chimney, F, reaching a little higher than the roof of the kiln, and connected with the kiln by a horizontal flue, G, which terminates in the center of the kiln-floor, as shown at H.

Around the base of the kiln are a number of fire-places, I I I, &c., with top and front openings, closed by doors, as shown at K K, &c. Openings or flues L L, &c., from these fire-places extend into the kiln-wall, and then branch off laterally on either hand for about two feet, making the flues M M, &c., and these lateral flues communicate with the body of the kiln at openings N N, &c., and also by

openings O O, &c., situated in front of the fire-places. The object of this arrangement is to have one of these openings or communications from a fire-place at every two feet, or thereabout, along the inner wall of the kiln, for the purpose of causing an even distribution of heat throughout the body of the kiln.

Both of the chimneys E and F have dampers, (of which only damper P is shown in drawings,) by which their draft can be regulated; and by closing the damper in E when the kiln is in operation, and simultaneously opening the damper in F, a downward draft is created in the kiln. The reverse action creates an upward draft, and these changes can be made at the pleasure of the operator, who can thereby control the operations of the kiln, and more surely secure an even "burn" than can be in any other way secured.

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

A brick-kiln in which the body A B D E is connected with the outside chimney by flue G, extending to the center H, and provided with outside fire-places, I, having flues M and openings K L N O, that connect them with the body, as shown and described, so that the combustion takes place outside of the kiln, thus preventing the access of cold air to the bricks, and the heat is evenly distributed without machinery.

NICHOLAS LODGE.

Witnesses:

CHARLES BIEHL, Jr.,  
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