

J. BLUM.
BRICK-KILN.

No. 173,108.

Patented Feb. 8, 1876.

Fig. 1

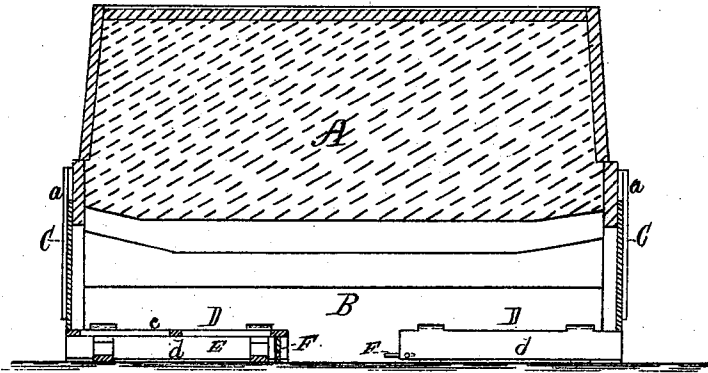


Fig. 2

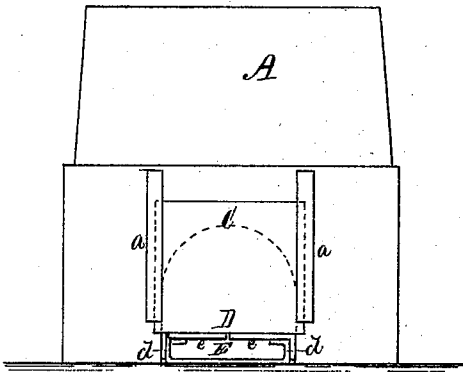


Fig. 3

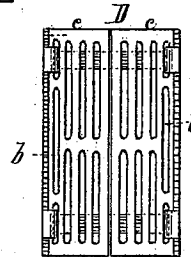
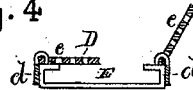


Fig. 4



WITNESSES:

Julius Wilcke
J. H. Herring.

INVENTOR:

Joseph Blum
By Girdley & Sherburne
Attys

UNITED STATES PATENT OFFICE.

JOSEPH BLUM, OF WILMETTE, ILLINOIS.

IMPROVEMENT IN BRICK-KILNS.

Specification forming part of Letters Patent No. **173,108**, dated February 8, 1876; application filed January 20, 1876.

To all whom it may concern:

Be it known that I, JOSEPH BLUM, of Wilmette, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Brick-Kilns; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, and in which—

Figure 1 represents a sectional elevation of a brick-kiln embodying my invention; Fig. 2 represents an end view of the same; Fig. 3 represents a general plan or top view of the grate employed; and Fig. 4 a cross-section of the same.

Like letters of reference indicate like parts.

My invention has for its object to improve the brick-kiln for which Letters Patent were granted to me on the 11th day of January, 1876, and consists in the arrangement of the fire-grate so as to form a draft-flue beneath it, extending inward toward the center of the kiln, and provided with a hinged damper, arranged to be opened or closed at will, whereby the current of air is admitted to the center of the fuel-supply flue, or caused to pass upward through the grate, as may be required.

In the drawing, A represents the kiln, which is made in the usual manner, and provided with fuel-supply flues B, extending through the same.

C C are sheet-metal doors, secured to the ends of the kiln by guides or ways *a a*, located on opposite sides of the fuel-supply flues, as shown in Fig. 2.

D D are the grates, each consisting of two metal plates *c c*, provided with longitudinal openings *b*, and hinged at their outer sides to

the upper edge of the longitudinal side pieces *d d*, fitting loosely against the walls of the fuel-supply flue and extending inward toward the center of the kiln. These side pieces rest upon the base or lower wall of the fuel-supply flue, and are of proper width to form a draft-flue, E, beneath the grate.

F is a damper, journaled at each end and at its lower edge to the lower edge of the side-pieces *d d* under the inner end of the grate. This damper is so arranged as to admit of being turned to a vertical position, bringing its upper edge against the lower surface of the grate, thus closing the inner end of the draft-flue, when the current of air previously passing to the center of the kiln is caused to ascend through the grate, thus closing the mouth of the fuel-supply flue.

By this arrangement of grate in connection with the dampers, located as described, I am enabled to control the amount and course of the draft so as to obtain the required uniform degree of heat, and am also enabled to use coal instead of wood, thereby rendering the process of burning brick much cheaper than with the ordinary arrangement of flues.

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

1. The hinged grate D, arranged to form the draft-flue E, in combination with the fuel-supply flue B and door C, substantially as and for the purpose specified.

2. In combination with the grate D, the damper F, located at the inner end of the grate, and arranged to close the draft-flue E, substantially as specified.

JOSEPH BLUM.

Witnesses:

N. C. GRIDLEY,

N. H. SHERBURNE.