

(No Model.)

J. BLUM.

BRICK KILN FRONT OR FURNACE.

No. 296,813.

Patented Apr. 15, 1884.

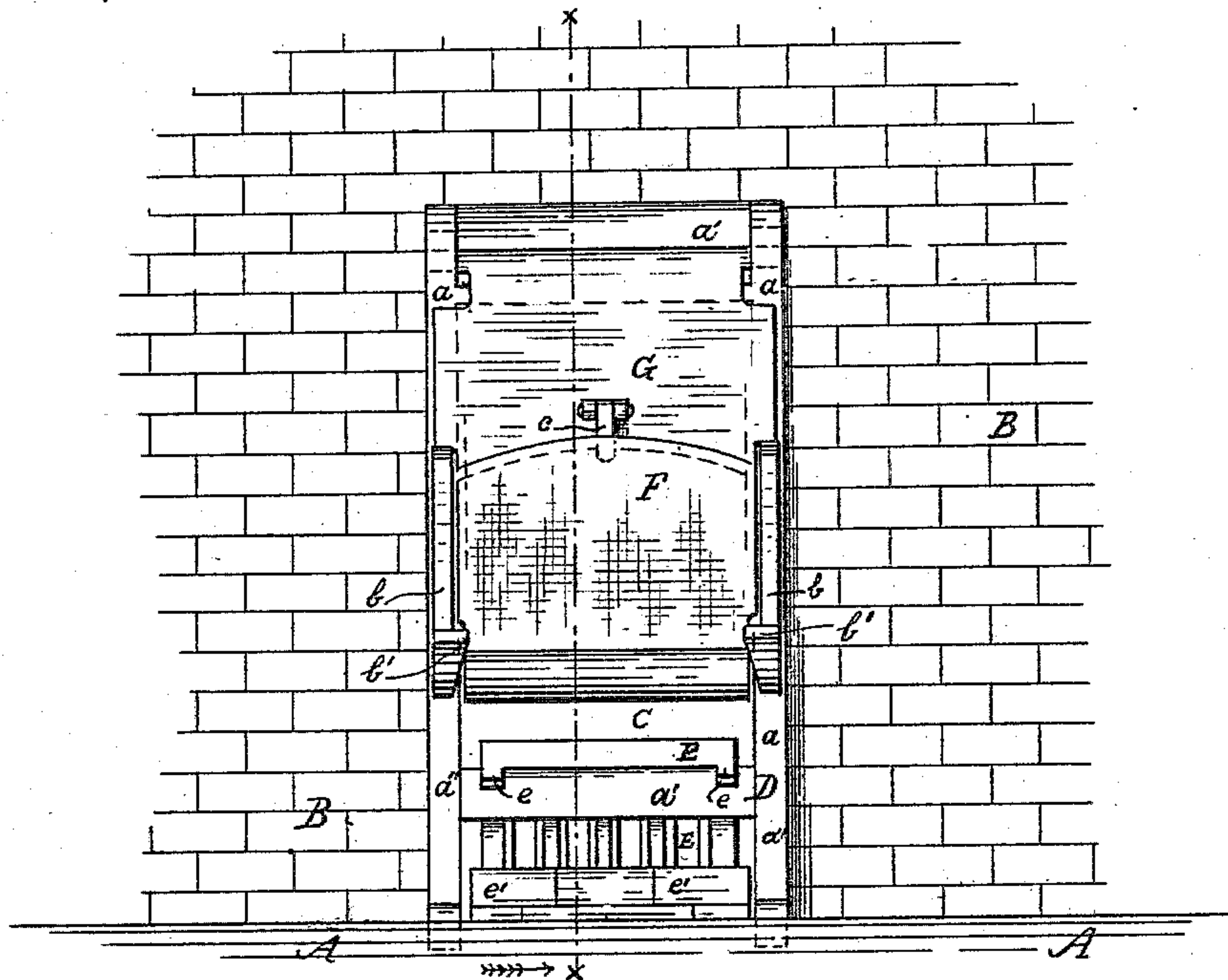


Fig. 1.

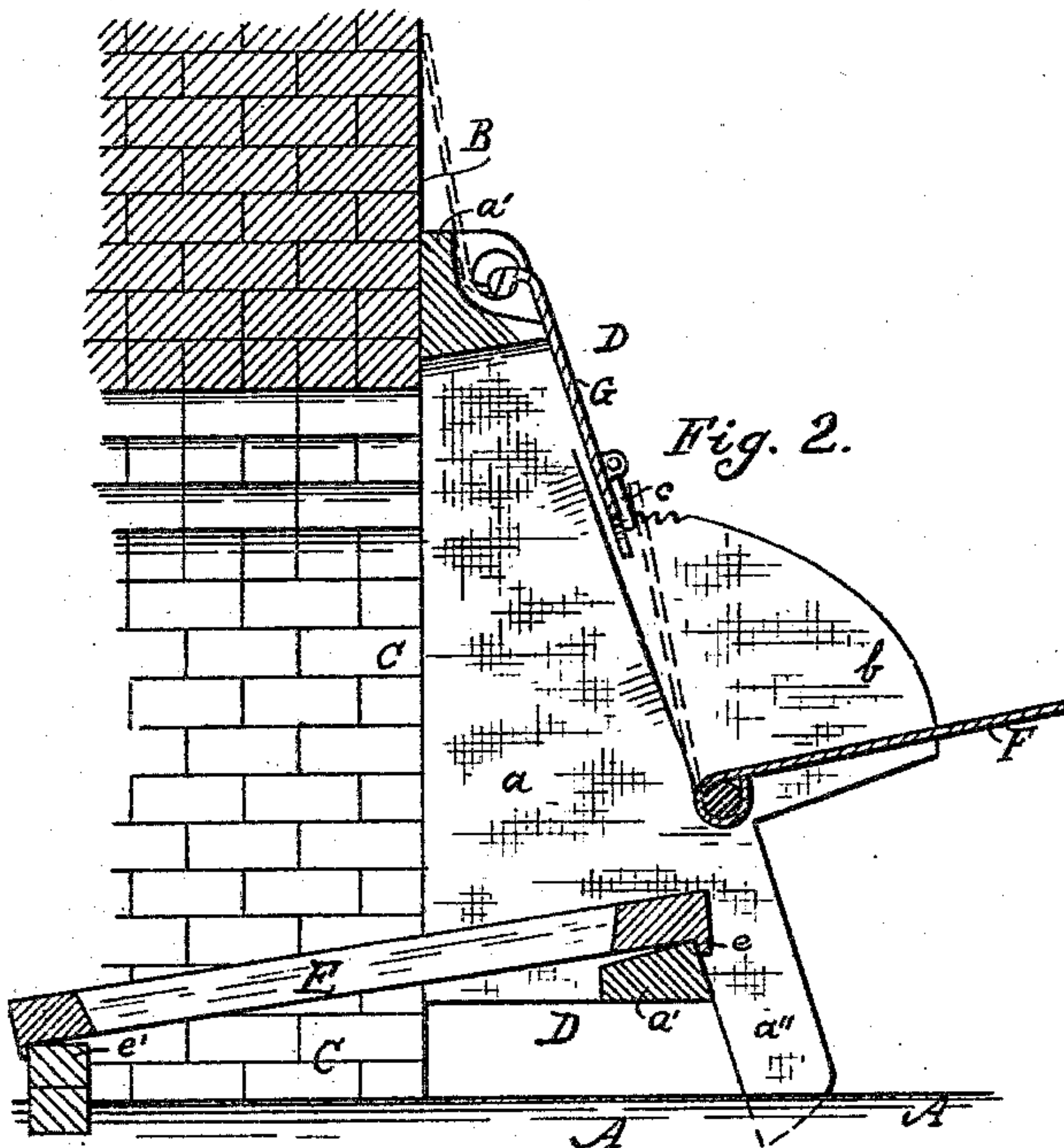


Fig. 2.

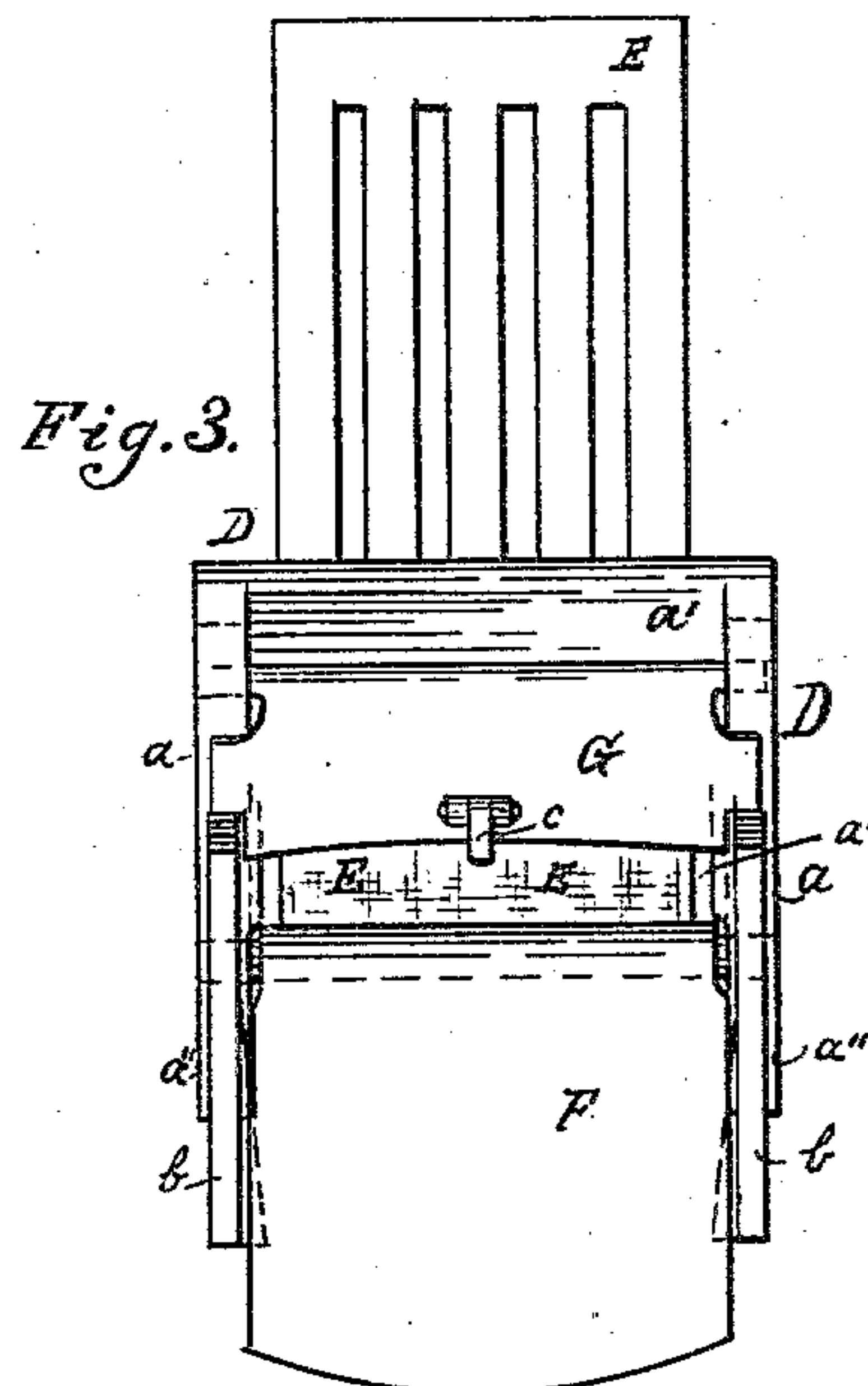


Fig. 3.

Witnesses:

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Inventor:

Joseph Blum  
per F. F. Trampus -  
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# UNITED STATES PATENT OFFICE.

JOSEPH BLUM, OF WINNETKA, ILLINOIS.

## BRICK-KILN FRONT OR FURNACE.

SPECIFICATION forming part of Letters Patent No. 296,813, dated April 15, 1884.

Application filed November 23, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH BLUM, residing at Winnetka, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Brick-Kiln Fronts or Furnaces, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1 is a front elevation of a brick-kiln front or furnace embodying my improvements. Fig. 2 is a section in the plane of the line *x x*, and Fig. 3 is a top view of the front or furnace detached.

Like letters of reference indicate like parts.

A represents the ground and B the front wall of the kiln.

C is the opening in the front wall.

D is the portable or removable front, and E is the grate. The front D is a structure made of metal, and consisting of side pieces, *a a*, connected by means of cross-bars *a' a'*, and having, by preference, legs or supports *a'' a''*. Projecting forward from the front edges of the side pieces, *a a*, are wings *b b*, and *b' b'* are stops or rests at or near the outer corners of the said wings.

F is a door turning on a pintle or journals entering the sides of the front D, and resting, when open, on the rests *b' b'*.

G is a door, the upper end of which is hinged to the upper part of the front D, and *c* is a hinged arm or pendant on the said door. The front, D, as will be perceived, rests upon the ground and against the wall B, and stands in a somewhat inclined position with respect to its legs or supports, being thus held by gravitation in its proper position against the brick-kiln, the legs entering the ground sufficiently to prevent the front from sliding forward or away from the said wall. This inclination of the forward portion of the front, D, also retains the door F in its closed position by gravity, as it then rests rearward of its center of gravity and against either the door G or arm *c*. The upper door will also remain both in its open and in its closed position, according as it may be placed, being retained in its closed position by its weight, and in its open position for the reason that it is

supported in front of its center of gravity. By first dropping or closing the door G and then raising the door F, the latter will be prevented from being wholly closed, for the reason that it will rest on the arm or pendant *c*, thus permitting air to enter between the said doors and into the kiln, and also diminishing the draft through the grate; but by raising the arm *c*, lowering the door G, and then closing the door F, air will be practically excluded from entering between the doors. Either door, however, may be open while the other is closed, or both may be open at the same time. The open door F, in conjunction with the wings *b b*, serves as a forward extension of the front D.

On the under side of the grate E are catches or lugs *e e*, arranged to engage the lower cross-bar, *a'*, and thereby preventing the grate from moving back or away from the front D.

In practice I support the inner end of the grate upon bricks *e' e'*, as shown, thus supporting the grate in a somewhat inclined position, the inner end being lower than the outer end.

This front is portable.

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

1. A portable brick-kiln front or furnace, consisting of the side pieces, *a a*, connected to each other by cross-bars *a' a'*, and having thereon the wings *b b*, the doors F and G, and the grate E, substantially as and for the purposes specified.

2. A portable brick-kiln front or furnace, consisting of the side pieces, *a a*, connected to each other by cross-bars *a' a'*, and having thereon the wings *b b*, the doors F and G, the pivoted arm or pendant *c*, and the grate E, having thereon the lugs or catches *e e*, arranged to engage the lower cross-bar, *a'*, substantially as and for the purposes specified.

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

JOSEPH BLUM.

Witnesses:

F. F. WARNER,

J. B. HALPENNY.