

T. F. BAKER.

Fireplace.

No. 91,299.

Patented June 15, 1869.

Fig. 1.

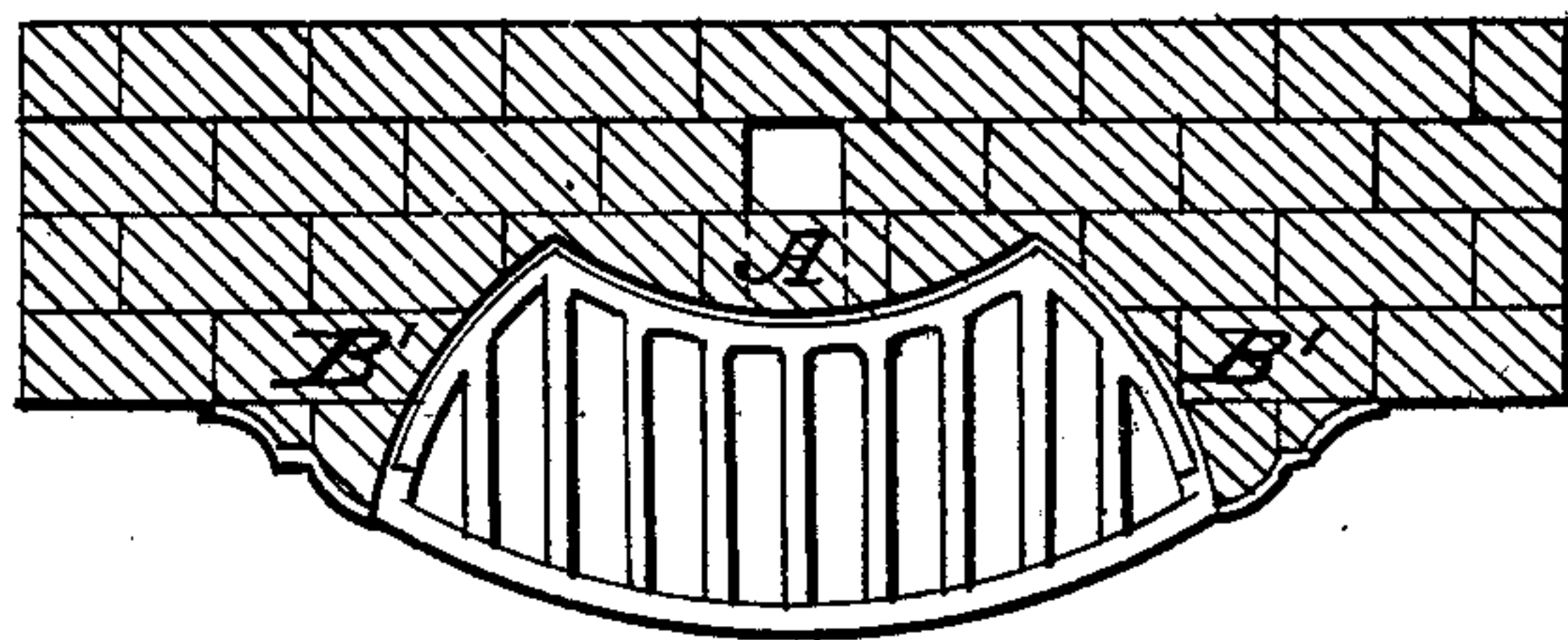
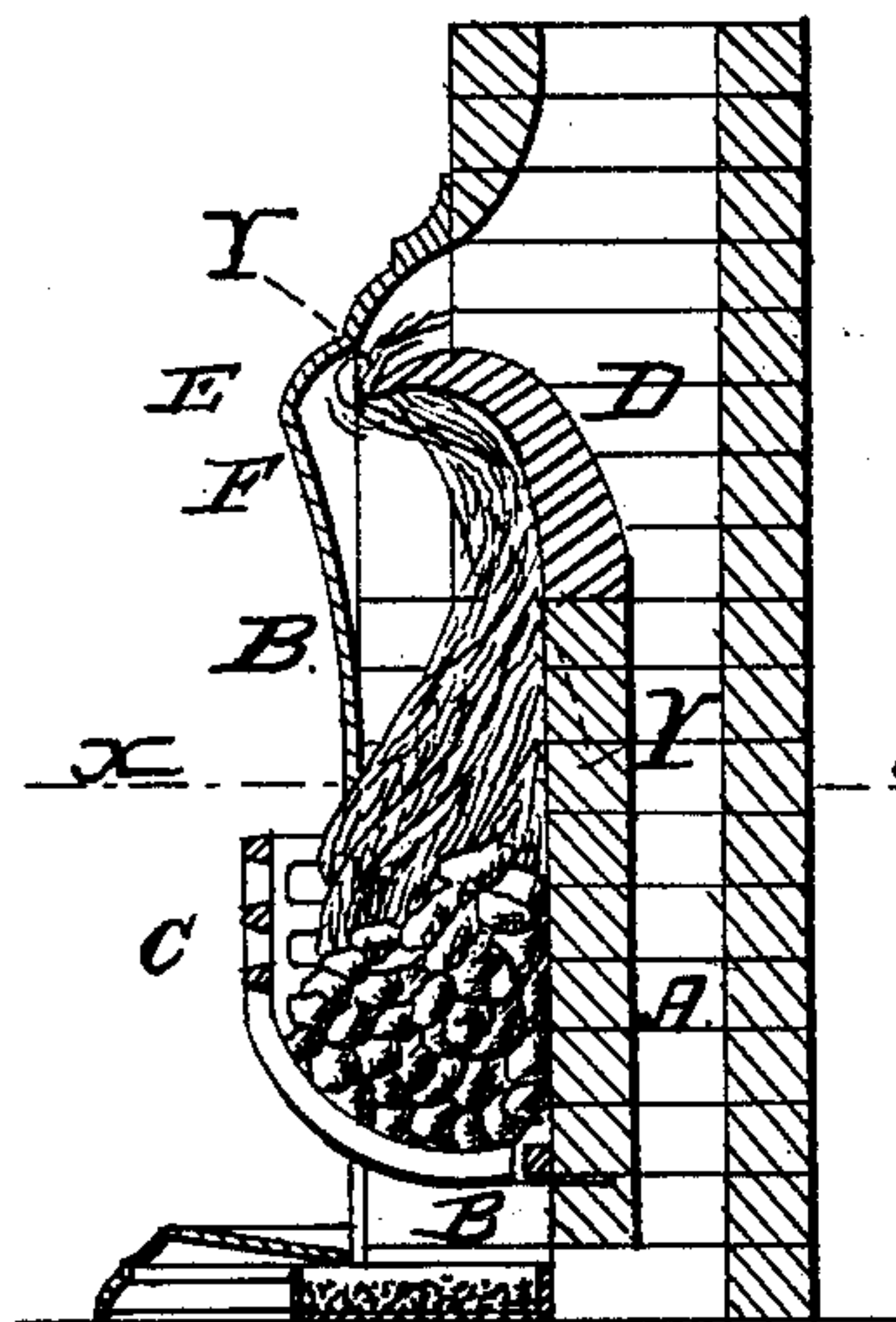
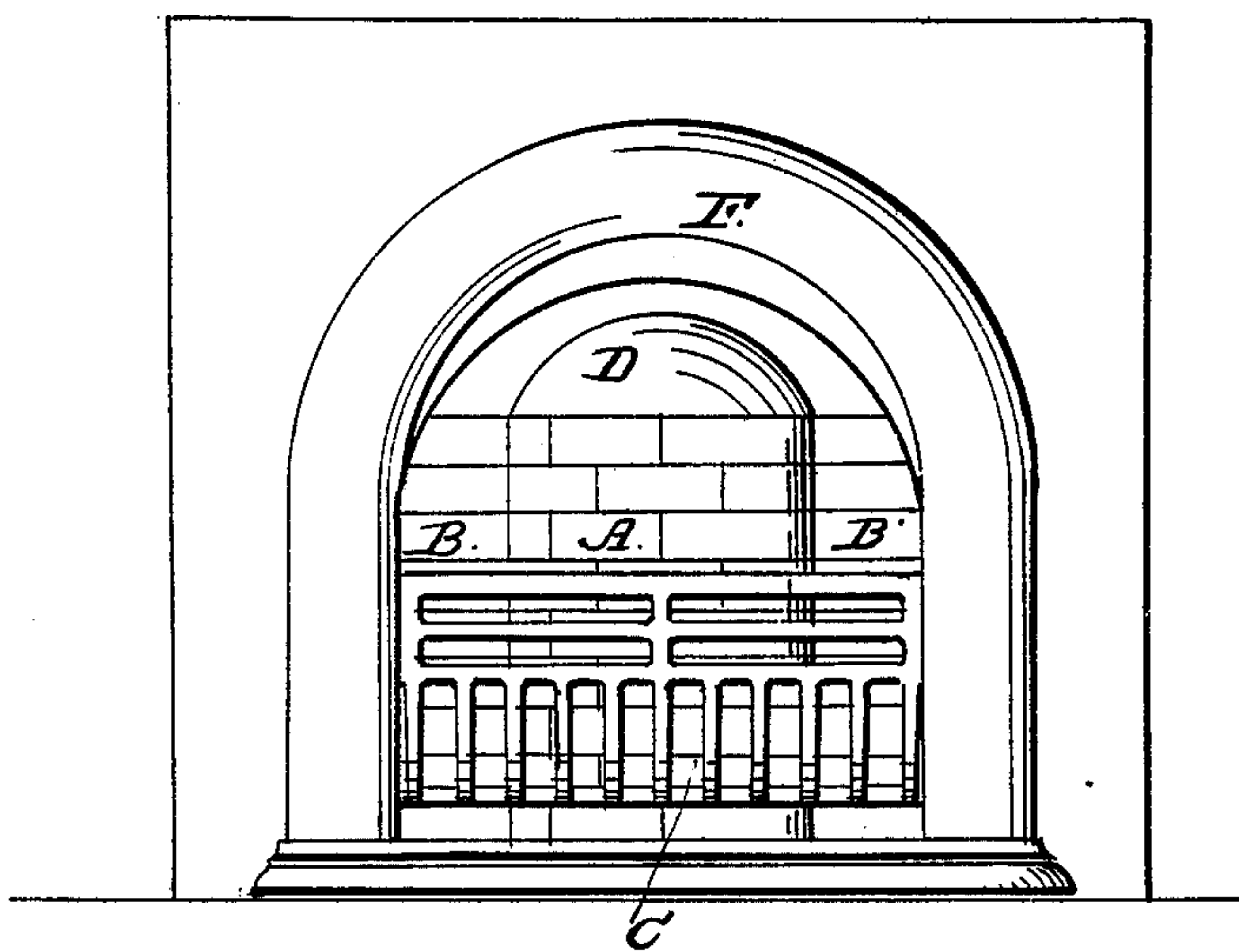
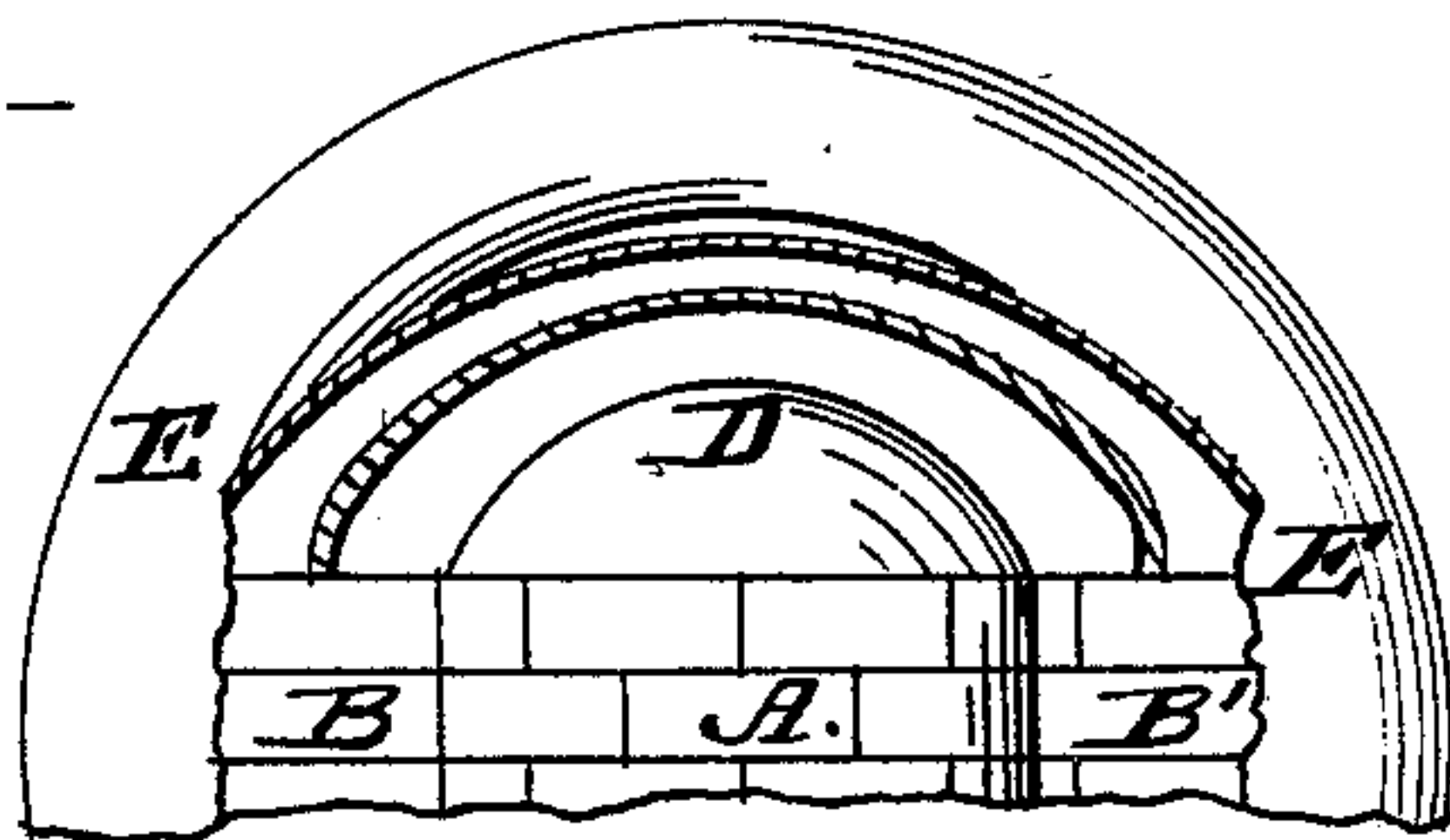


Fig. 4.



Witnesses

Chas. H. Lyman
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Inventor

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United States Patent Office.

THOMAS F. BAKER, OF CINCINNATI, OHIO.

Letters Patent No. 91,299, dated June 15, 1869.

FIRE-PLACE.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, THOMAS F. BAKER, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Fire-Place; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My invention relates to a construction of fire-place, whose combustion shall be as perfect at its sides as at its middle portion, the incandescent mass and the effective draught being nearly equally distributed, and in which the parts are so disposed as to radiate a large amount of both direct and reflected heat into the room.

In the accompanying drawings—

Figure 1 is a front elevation of a fire-place embodying my improvements.

Figure 2 is a vertical section from front to rear.

Figure 3 is a horizontal section at the line X-X.

Figure 4 is a section at the line Y-Y, looking upward.

The back of my fire-place is preferably of fire-brick or tile, and has a middle portion, A, whose convexity is concentric, or nearly so, with the outer sweep of my grate, C, and concave side portions or jambs, B B', the chords of whose arcs are nearly forty-five degrees with the front.

The said convex middle portion, and the rear part of the jambs, are surmounted by an arched crown, D, whose middle portion extends so much forward as to contract the throat E at the axis of the draught, and to compel the latter to seek the sides.

It will be seen that the salient form of the middle portion A, and the receding form of the jambs B B',

enlarge the capacity of the side portions of the fire-space at the expense of the middle portion. The effect of this, in conjunction with the corresponding contraction of the middle portion of the throat, is to distribute the body of incandescent fuel, and also the draught more toward the sides, where the combustion is naturally less active than in the middle portion, partly from the well-known tendency of fluids to seek the middle channel, and partly from the necessarily greater heat of the centre of the body of fuel than at the side portions, more in contact with the cooling-surfaces, and less with the heated mass.

The breast F of my chimney may be formed of cast metal, and project forward at its crown, so as to stand nearly vertical over the grate-bars.

I have selected, for illustration, the preferred form of my invention, but may modify the same. For example: The contracted throat and projecting breast-crown may be omitted, and the jambs may be two oblique planes, and the device still possess, in degree, the beneficial characteristics above recited.

I claim herein as new, and of my invention—

1. A fire-place, whose back has the convex middle and the oblique side portions, surmounted by an arched crown, as set forth.

2. Such a fire-back, when the crown projects forward so as to contract the throat at its central portion, as and for the purpose designated.

In testimony of which invention, I hereunto set my hand.

T. F. BAKER.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.