

C. HANES.
 Combined Fire-Place, Damper-Plate, and Arch-Bar.
 No. 222,697. Patented Dec. 16, 1879.

Fig. 1.

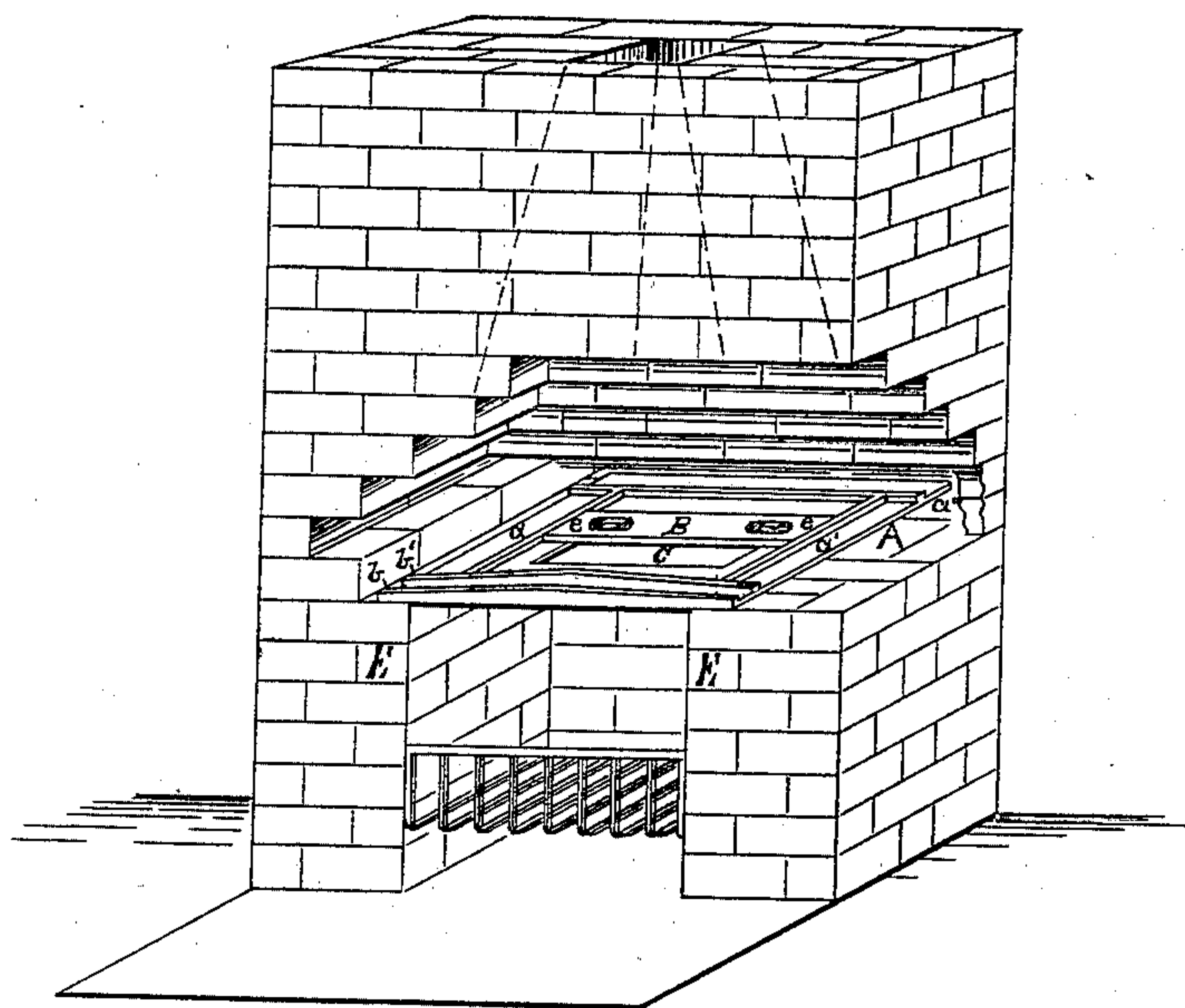


Fig. 2.

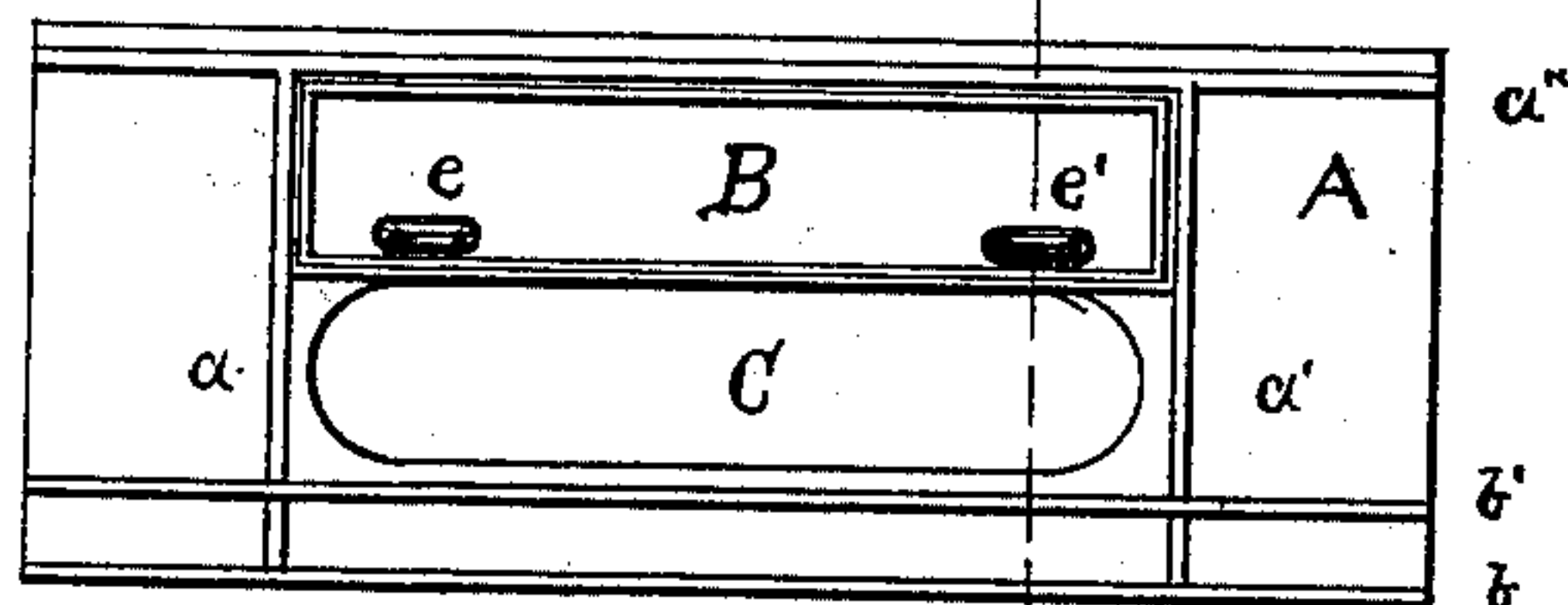


Fig. 3.

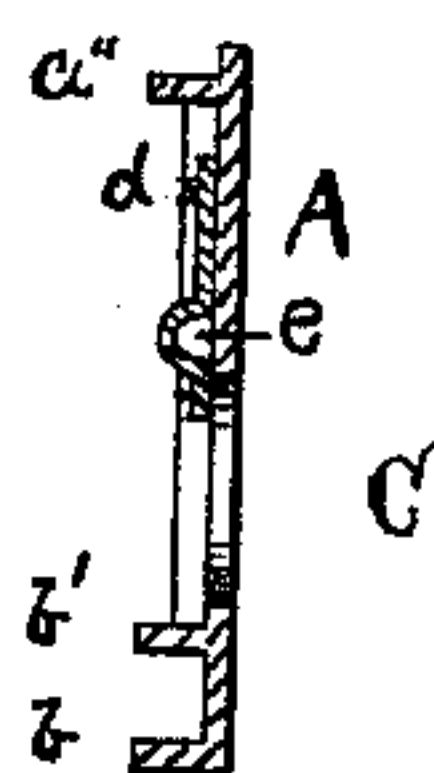
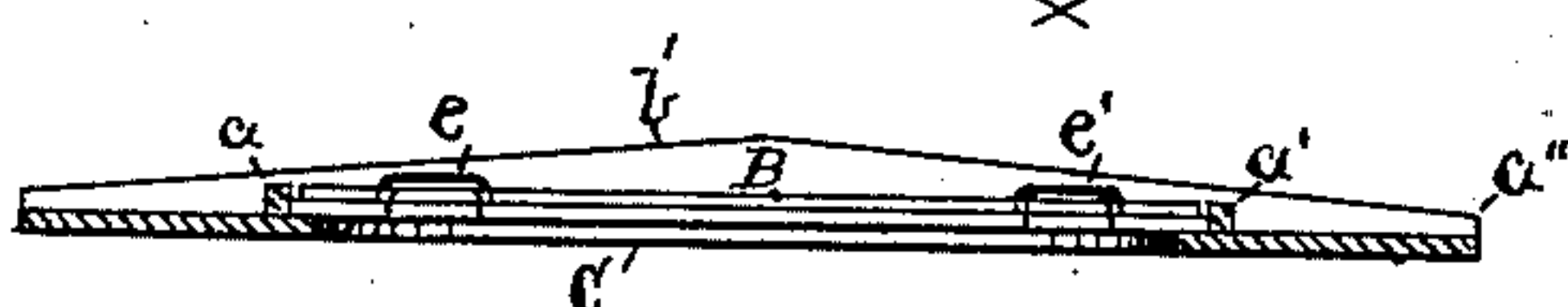


Fig. 4.



WITNESSES:

E. B. Howard
J. V. L. Rodgers

Clark Hanes INVENTOR.

By Howard Bros & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

CLARK HANES, OF WHEELING, WEST VIRGINIA.

IMPROVEMENT IN COMBINED FIRE-PLACE DAMPER-PLATE AND ARCH-BAR.

Specification forming part of Letters Patent No. **222,697**, dated December 16, 1879; application filed June 30, 1879.

To all whom it may concern:

Be it known that I, CLARK HANES, of Wheeling, in the county of Ohio and State of West Virginia, have invented certain new and useful Improvements in Fire-Place Damper-Plate and Arch-Bar Combined; and I do hereby declare that the following is a full, clear, and exact description of the invention, 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.

The object of my invention is to provide a simple and effective device for regulating the draft of smoke-flues in fire-places of dwelling-houses, close the same entirely when not in use, to prevent the falling of soot into the room, and also serve the purpose of an arch-bar to sustain the brick-wall over the fire-place opening.

To this end it consists of a metallic plate or frame having a flue-opening through its center, the frame constructed somewhat larger than the fire-place opening, over which it is placed, so that it will have suitable bearing on the jambs and back wall, said plate having strengthening-ribs cast upon the upper surface, and provided with an adjustable lid or damper to close the flue-opening in the plate, all of which I will now proceed to describe in detail, reference being had to the drawings, in which—

Figure 1 is a perspective view of a chimney-breast with a portion cut away, showing my device in position over the fire-place. Fig. 2 is a top view of the damper and arch-bar; Fig. 3, a cross-section on line *x x*, and Fig. 4 a lengthwise section of the plate.

Like letters of reference refer to like parts.

A represents a plate made, preferably, of cast-iron, of suitable size to cover over the fire-place opening, having strengthening-ribs *a a' a''* on the upper surface, which serve a double purpose of a frame or guides to inclose the movable damper and prevent the plate from warping. *b b'* are arch-bar ribs cast on the front edge of the plate, as shown. The rib *b'* is placed a short distance from the

front rib, such ribs being adapted to sustain the weight of the wall above the fire-place.

C is a narrow oblong slot or flue-opening through the plate A, proportioned in size to suit the fire-place. B is a damper-plate, resting on the plate A between the ribs *a a'*, having strengthening-rib *d* cast around its edge, and provided with indents *e e'* on the lower side, near the front edge, to permit of the plate being moved over the flue-opening from below with the aid of the hand or some suitable instrument. E E represent the jambs of the fire-place.

While I show the damper B as separate from and sliding on the surface of the plate A between the guides *a a'* over the flue-opening C, yet I regard it within the scope of my invention to pivot said damper at each end to the plate A, so it will revolve in the flue-opening, or hinge one side of the damper to the edge of the flue-opening, so that it may be raised or lowered, as required.

I also consider it within the scope of my invention to attach a connecting-rod to the damper, extending through the wall, for the purpose of operating the same; but for general purposes I find that the movable damper B, adjusted by means of the hand, answers every purpose and gives satisfaction.

By casting the arch-bar ribs *b b'* on the plate A the labor of building an arch across the fire-place opening to sustain the wall above is avoided, there being, besides, the additional advantage of having the arch-bars and plate combined in one article of manufacture.

With the use of my invention I avoid the necessity of closing the smoke-flue with straw or other like material when the fire is withdrawn in the spring of the year to prevent the soot from falling into the room. By simply drawing the damper over the flue-opening I prevent all danger and trouble from soot or fire from adjoining flues.

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

1. In a fire-place, the plate A'', cast with arch-bars for supporting the wall above the fire-place, as set forth.

2. The combination, with a fire-place, of the plate A, cast with arch-bars, and having flue-opening C and adjustable damper B, substantially as described and shown.

3. The combination of the plate A, having ribs *a a' a''*, arch-bar ribs *b b'*, flue-opening C, and the movable damper B, provided with indents *e e'*, substantially as herein shown and for the purposes set forth.

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

CLARK HANES.

Witnesses:

S. D. TIPPETT,

W. H. CHAPMAN.