

C. S. RANKIN,
FIREPLACE.

Fig: 1.

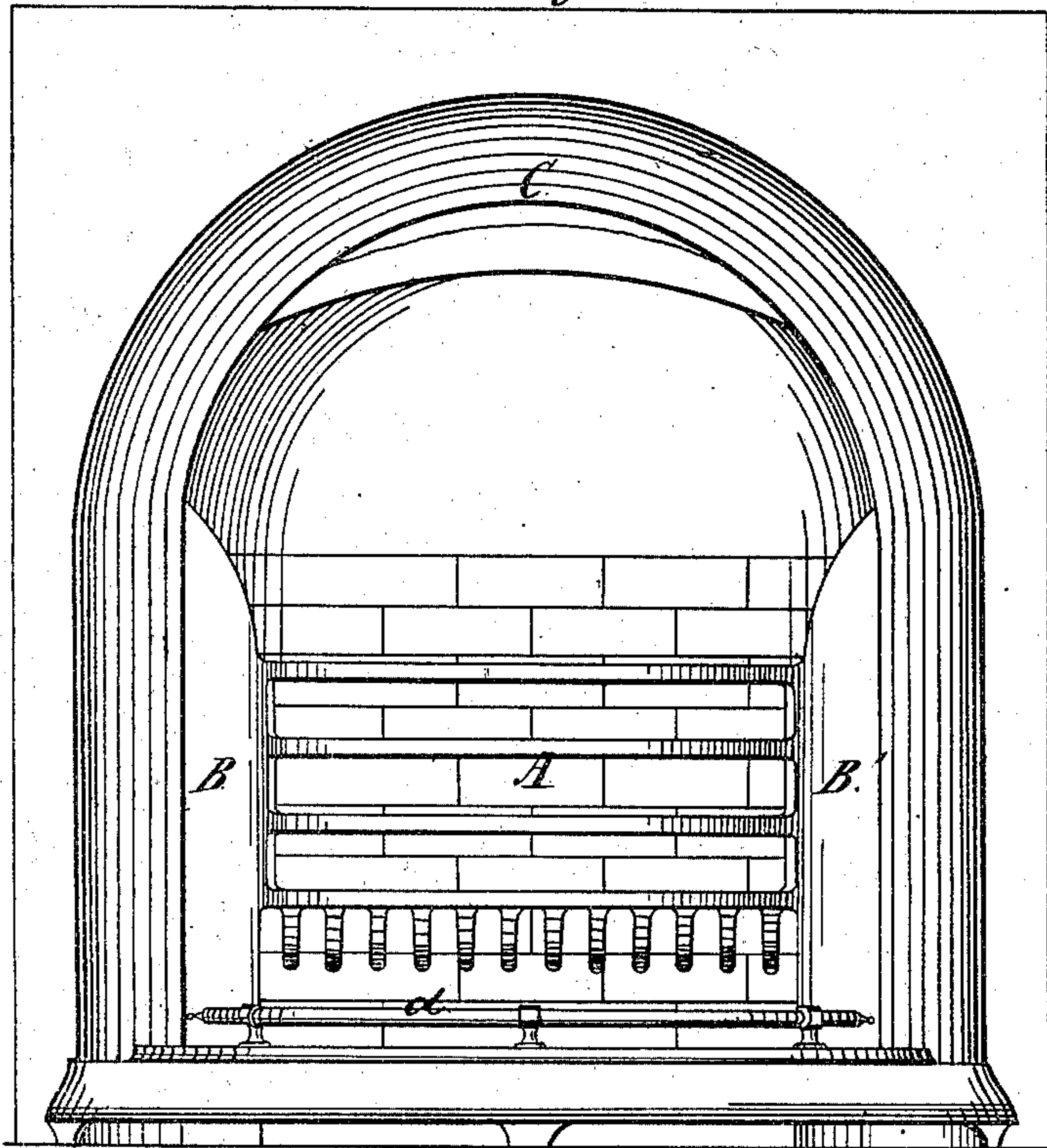


Fig. 2.

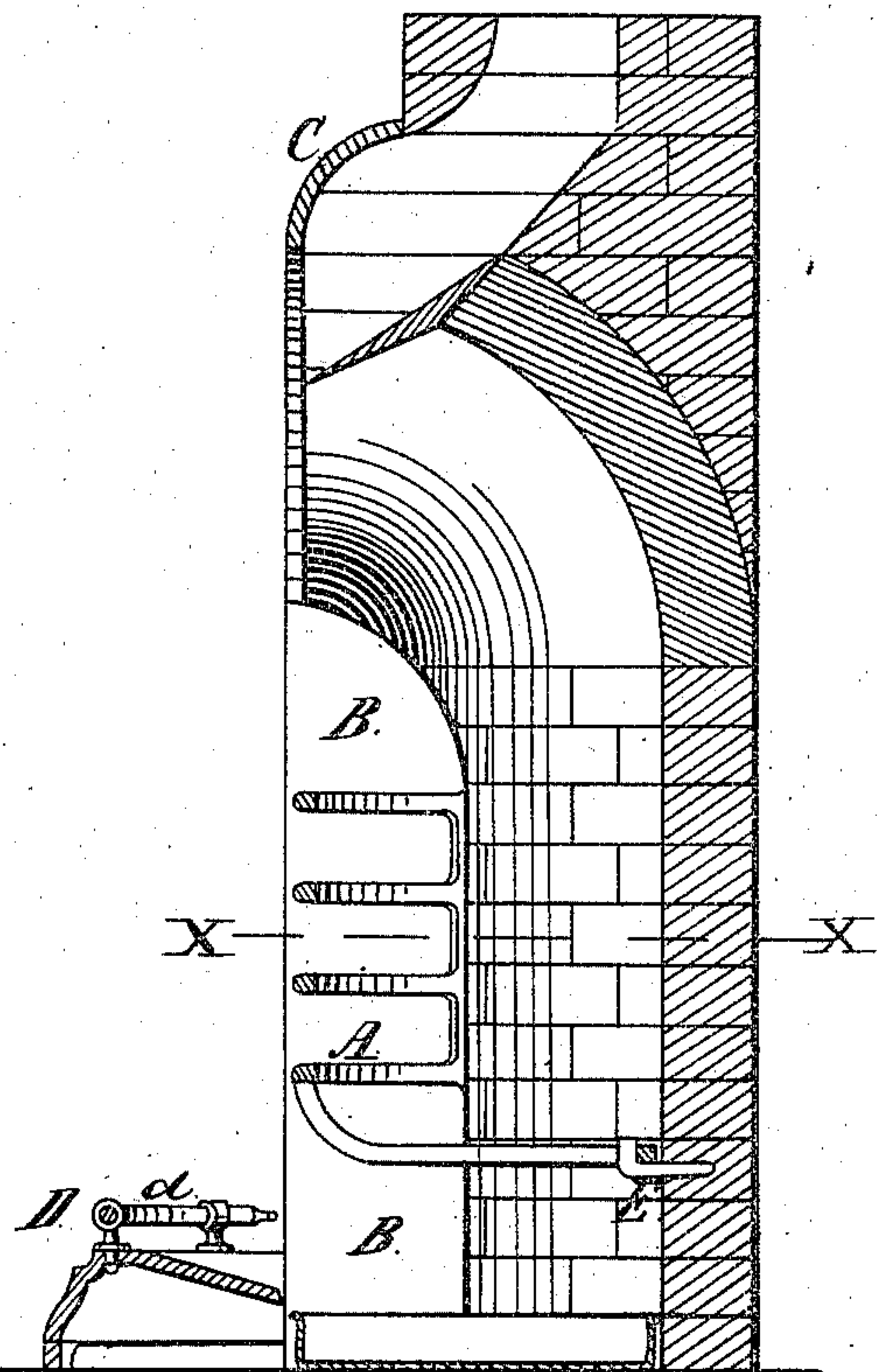


Fig: 6.

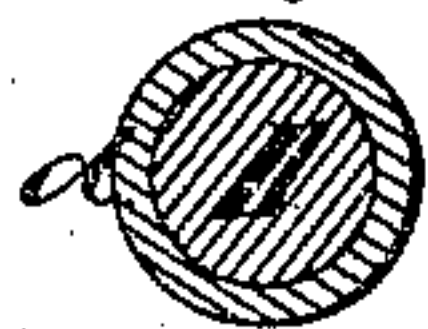


Fig: 3.

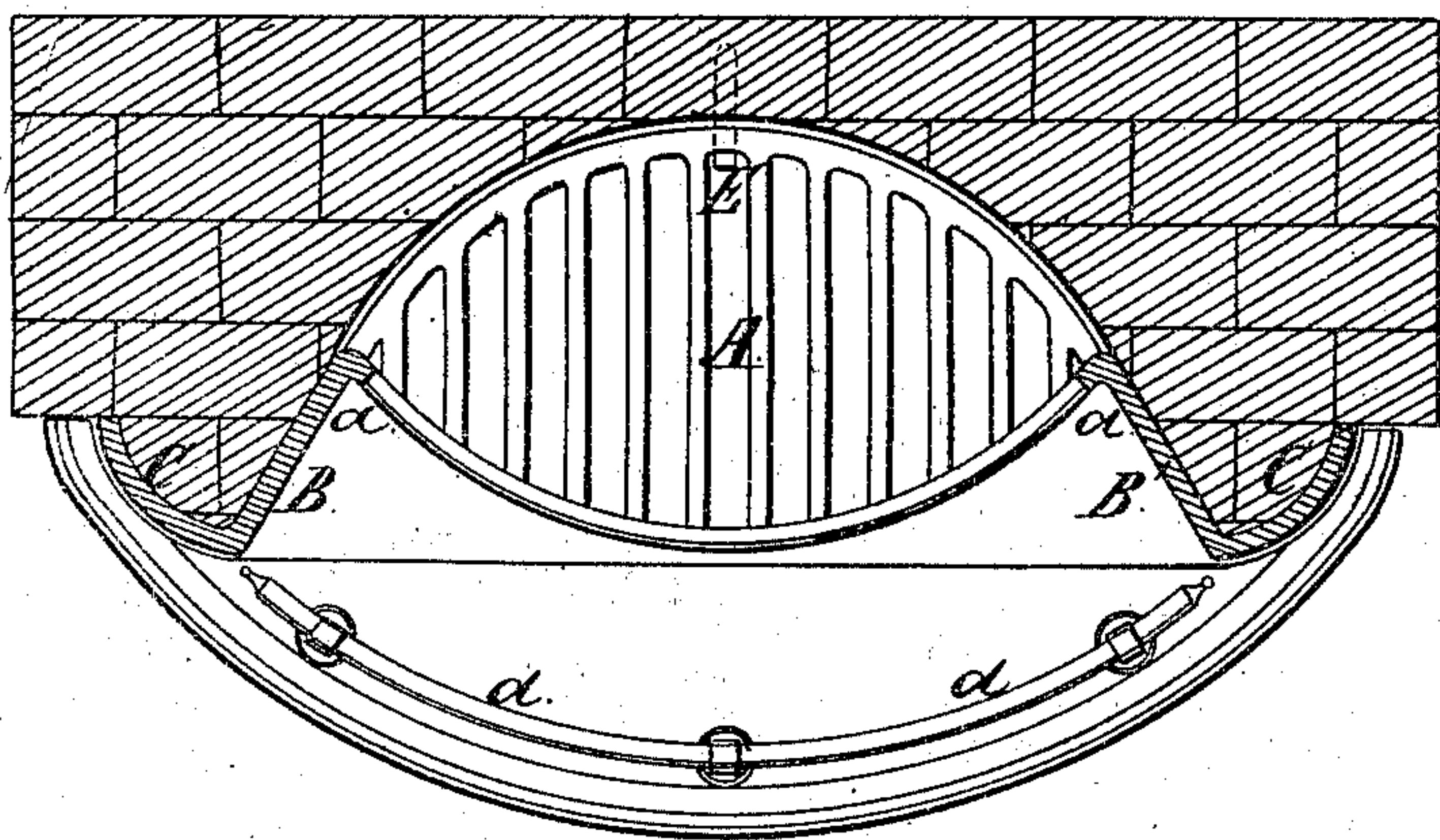


Fig. 4

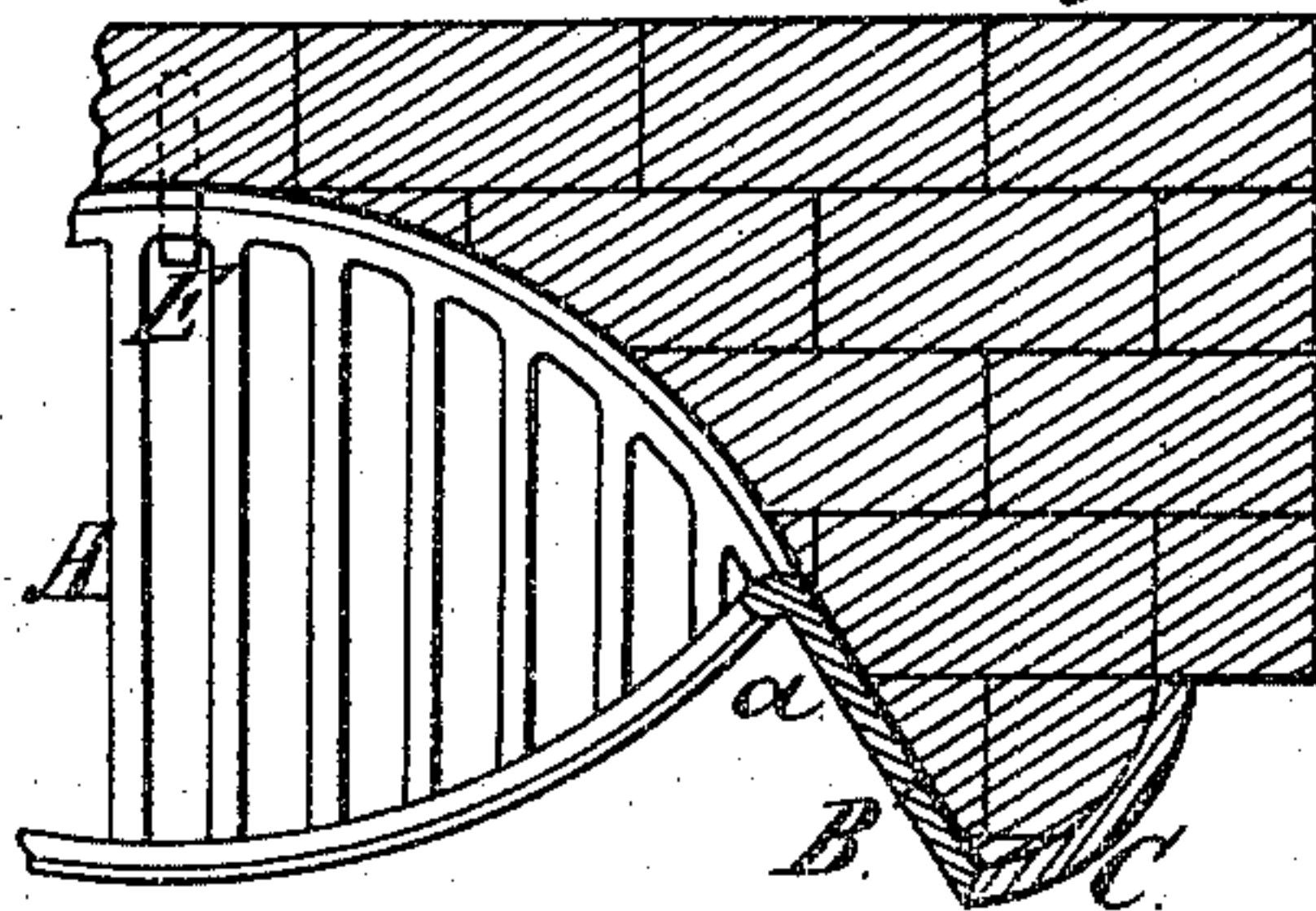
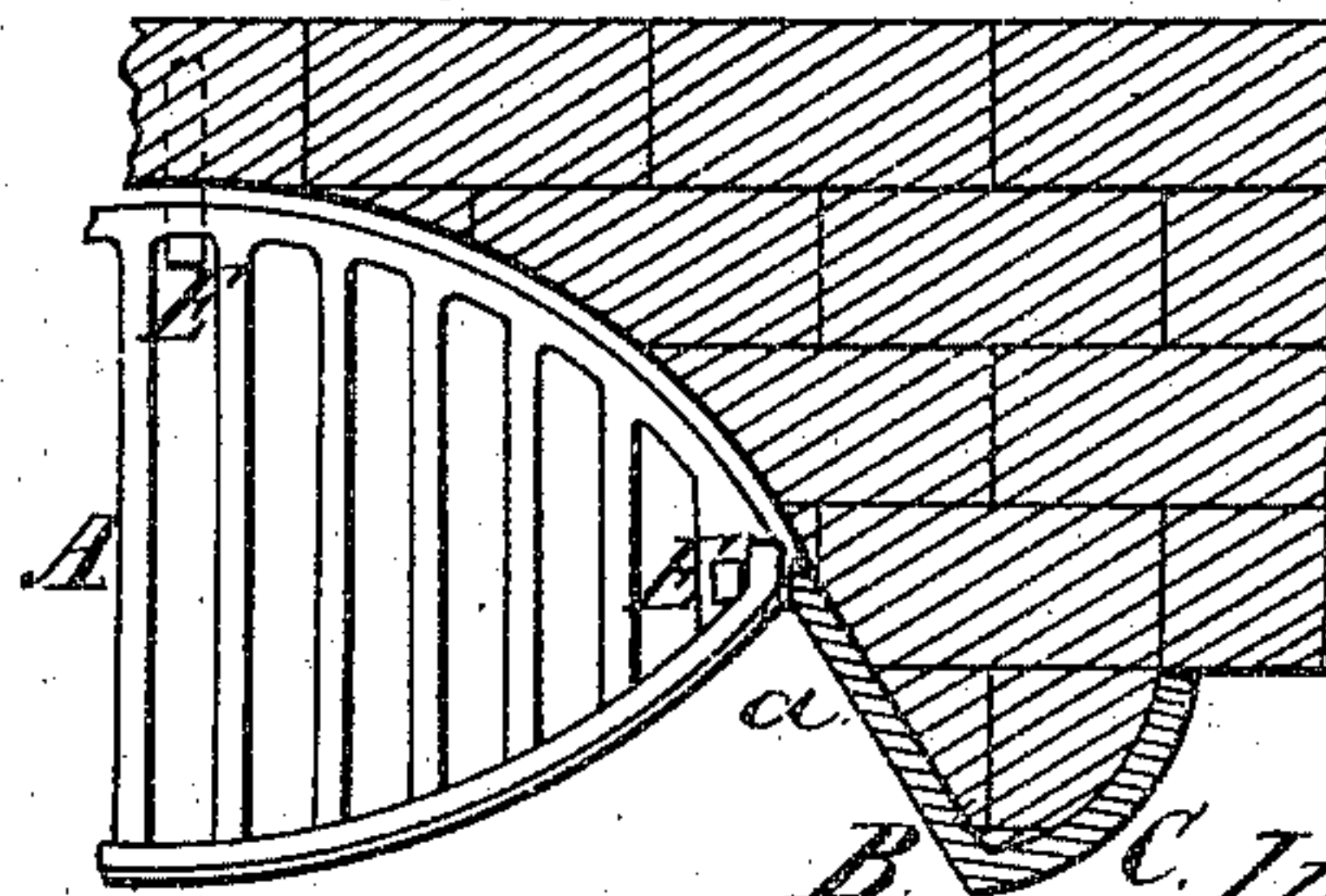


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES S. RANKIN, OF CINCINNATI, OHIO.

FIRE-PLACE.

Specification forming part of Letters Patent No. 88,509, dated March 30, 1869.

To whom it may concern:

Be it known that I, CHARLES S. RANKIN, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Fire-Places; 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 or arrangement of the grate, jambs, and front plate of a fire-place, which combines the advantages of active radiation with freedom from smoke, dust, &c., and the capacity to receive a summer-front without the removal of the grate proper or basket.

Figure 1 is a front elevation of my improved fire-place. Fig. 2 is a vertical section. Fig. 3 is a horizontal section at the line *xx*. Figs. 4 and 5 are diagrams, showing modifications of my improvement. Fig. 6 is an enlarged transverse section of fender-bar.

In the preferred form of my invention, the grate proper or basket A, jambs B B', and front plate C, are cast in one piece, as represented in Figs. 1, 2, and 3. The grate A is preferably convex in front, as shown, and is so connected to the front plate C by oblique jambs B B' as to bring its most salient portion in rear of the plane of said plate. The said jambs may be cast in one piece, both with the grate and with the front plate, as in Figs. 1, 2, and 3, or may be cast solidly to only one of these parts, and united to the other part by means of customary hooks or lugs E, as in Figs. 4 and 5. The fender-bar D is coated with vitreous enamel *d* to avoid the discoloration of rust and impart a pleasing finish.

Among several marked advantages of the above-described form and arrangement the following may be cited: The grate being

wholly in rear of the front or breast, and directly underneath and back of the throat, any ashes or smoke escaping from the fire is less liable to puff out into the room than in those arrangements where a convex grate projects more or less beyond the front plate, or in front of a perpendicular line dropped from the chimney-breasts. The ends of the grate being recessed somewhat behind the front plate leave vertical flues or channels *a* for the discharge upward of any smoke or ashes that may escape at this part, said recessed position also enabling the front plate to act as a screen or curtain to ward off eddies or currents of wind from an open door or window, that would otherwise cause the fire-place to smoke.

The oblique jambs B B', in addition to the uses above recited, serve to reflect into the room the heat that radiates from the grate-front, and for this purpose may be polished, if desired.

When the grate-jambs and front are cast in one piece, the trouble of broken hooks or ears, incident to the customary removable grate, is avoided, and the entire structure is more stanch and complete.

I claim herein as new and of my invention—

1. The described arrangement of convex recessed grate A, oblique jambs B B', and front plate C, for the purposes set forth.

2. As a new article of manufacture, the grate A, jambs B B', and front plate C, cast in one piece, as set forth.

In testimony of which invention I hereunto set my hand.

C. S. RANKIN.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.