

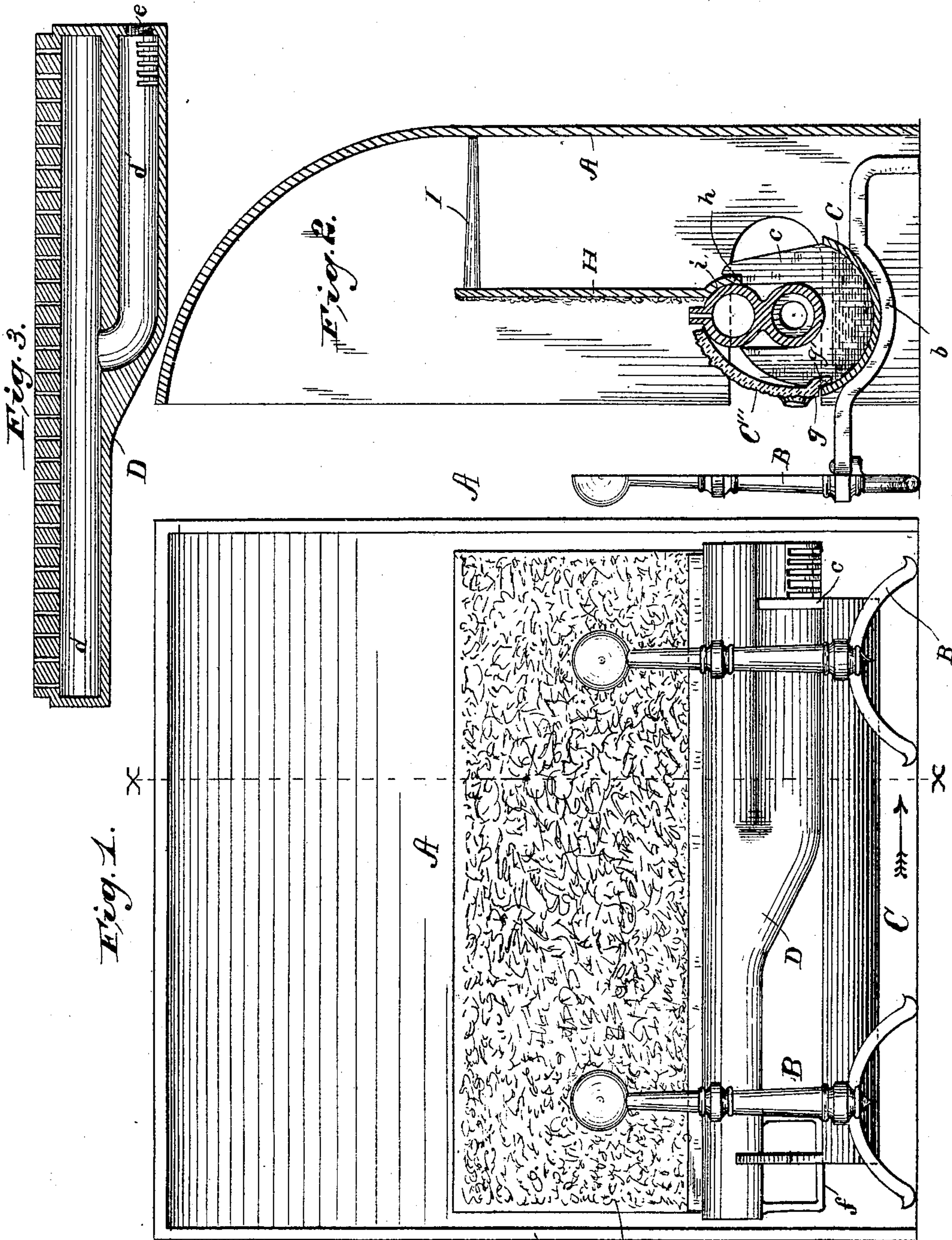
(No Model.)

3 Sheets—Sheet 1.

Q. S. BACKUS.
GAS LOG AND FIRE PLACE.

No. 390,743.

Patented Oct. 9, 1888.



Witnesses:
E. J. Walker
Ira R. Steward.

Inventor.
Quincy S. Backus,
by his attys
Whitaker & Prosser.

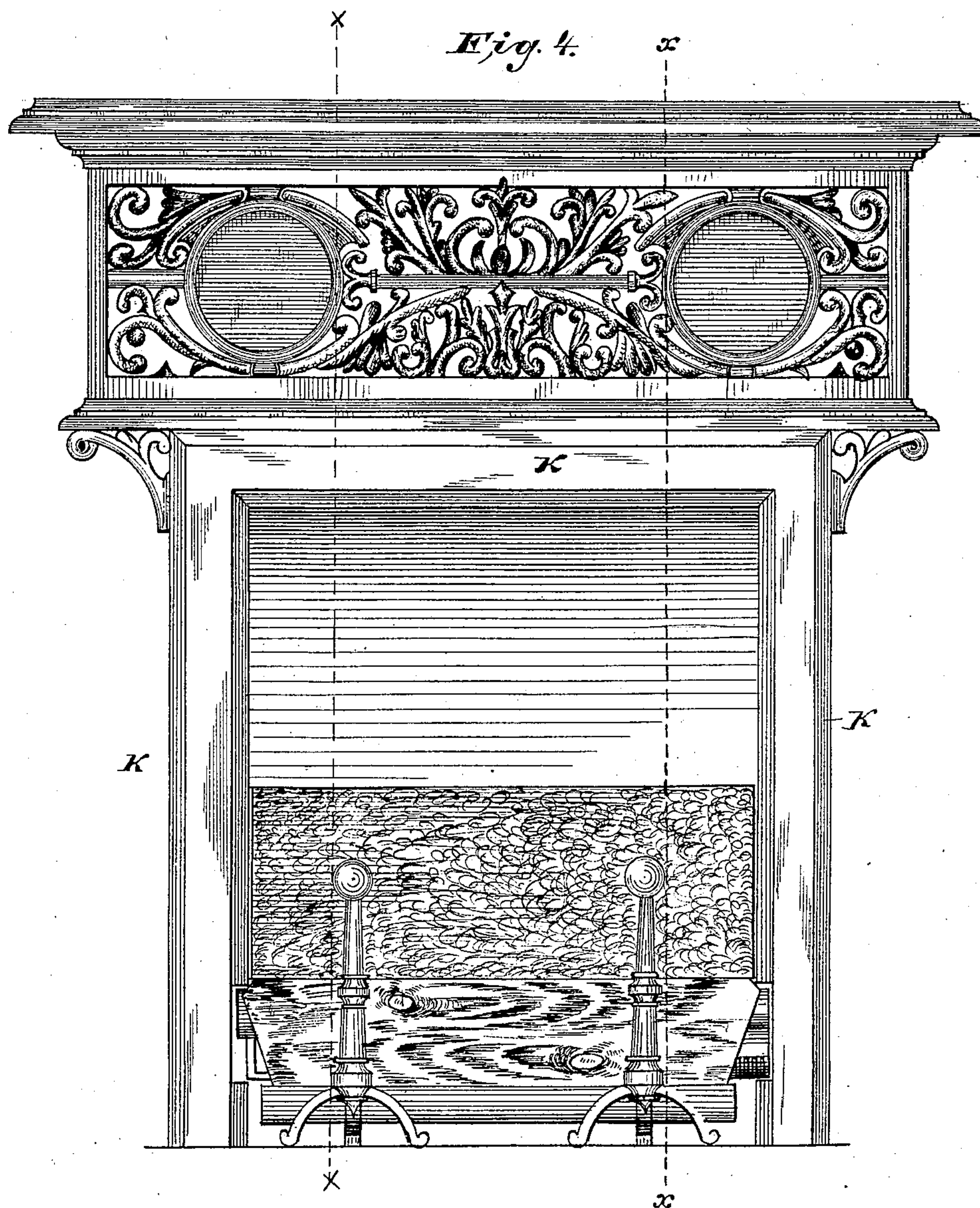
(No Model.)

3 Sheets—Sheet 2.

Q. S. BACKUS.
GAS LOG AND FIRE PLACE.

No. 390,743.

Patented Oct. 9, 1888.



Witnesses:
Edward T. Walker.
Wm. C. Dyre.

Inventor.
Quimby S. Backus,
by his attys.
Whitaker & Prouss

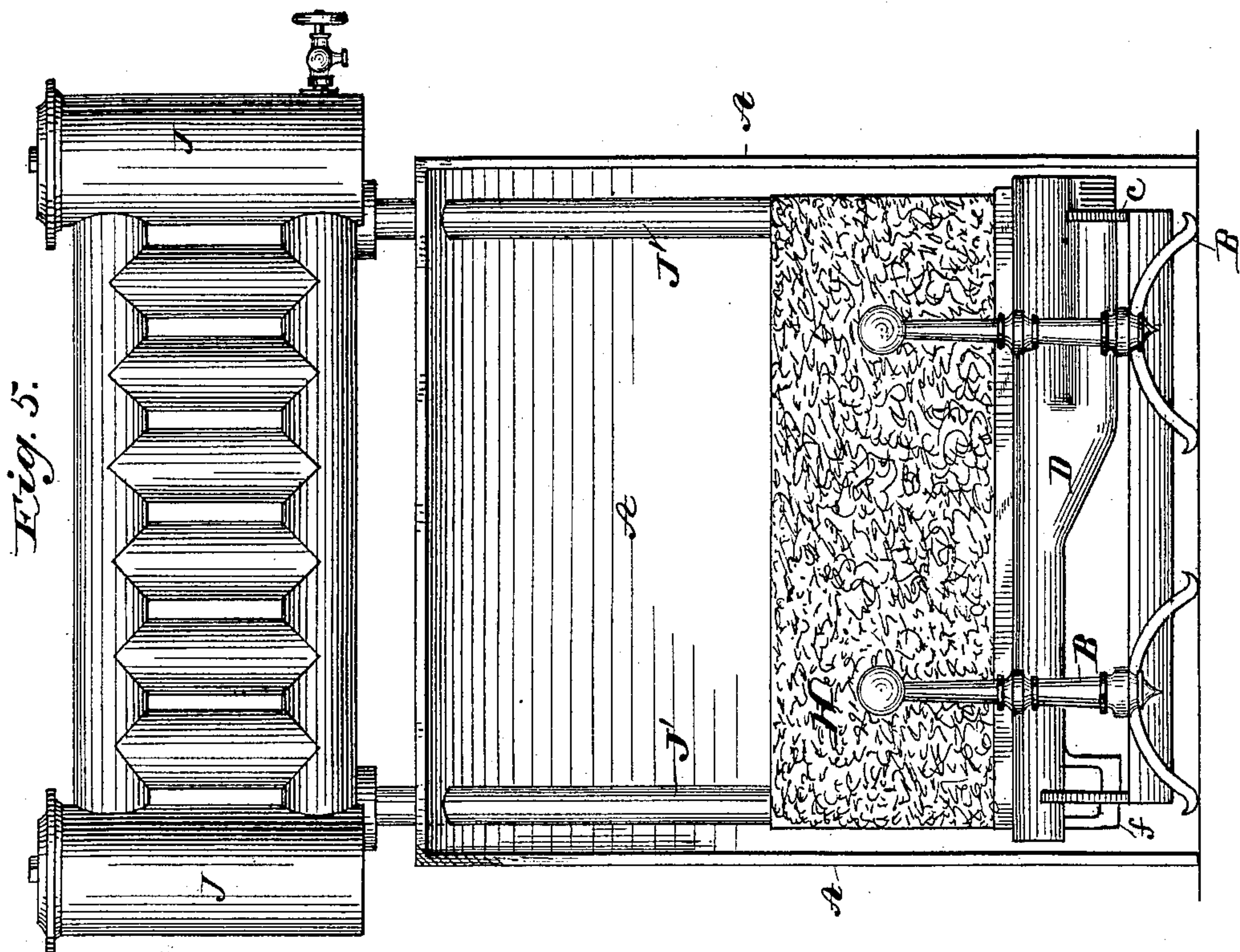
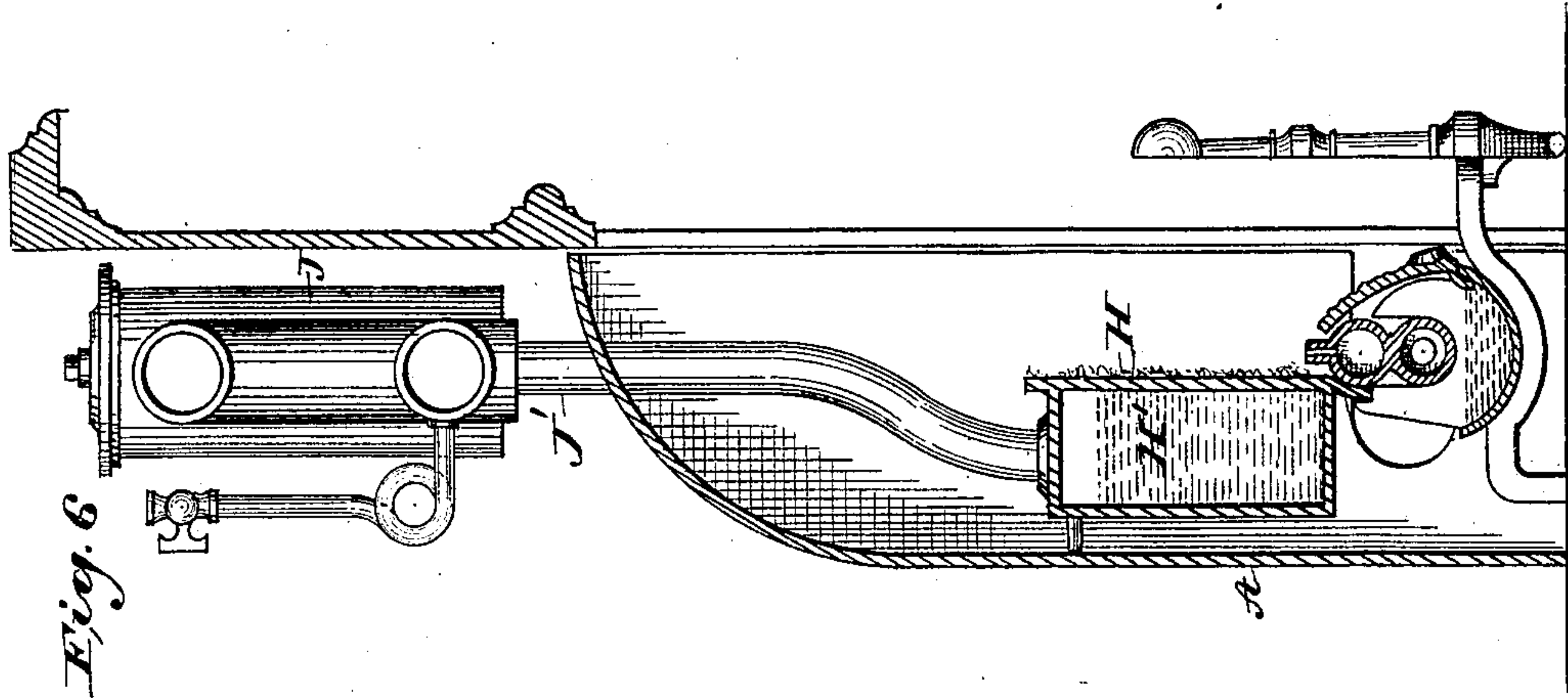
(No Model.)

3 Sheets—Sheet 3.

Q. S. BACKUS.
GAS LOG AND FIRE PLACE.

No. 390,743.

Patented Oct. 9, 1888.



Witnesses:

Edward T. Walker.
Wm. E. Dyre

Inventor:
Quincy S. Backus.
by his attys
Whitaker & Pomeroy.

UNITED STATES PATENT OFFICE.

QUIMBY S. BACKUS, OF WINCHENDON, MASSACHUSETTS.

GAS-LOG AND FIRE-PLACE.

SPECIFICATION forming part of Letters Patent No. 390,743, dated October 9, 1888.

Application filed November 9, 1886. Renewed November 12, 1887. Serial No. 255,017. (No model.)

To all whom it may concern:

Be it known that I, QUIMBY S. BACKUS, a citizen of the United States, residing at Winchendon, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Gas-Logs and Fire-Places; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to fire-places in which a gas-burner is employed; and it consists of certain details of construction, which are hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation with a part removed. Fig. 2 is a section of the complete device on line *x x* in Fig. 1, looking in the direction of the arrow. Fig. 3 is a longitudinal section of the burner. Fig. 4 is a front elevation of a form of invention with a radiator attached. Fig. 5 is the same with parts removed. Fig. 6 is a transverse section on line *x x*, Fig. 4.

The casing, A, which I employ is made to fit snugly in the ordinary fire-place niche. It is placed therein so that the front edge of the same is substantially flush with the front of the sides of said niche, and the curved upper part of the back closes the chimney-draft and acts to throw the heat forward into the room.

The burner D is provided with passages *d d'*. The former is closed at each end, and a row of burner-orifices leading from the same extends along to the top of the burner. The passage *d'* is open, and is provided with a screw thread to receive the gas-supply pipe at end *e*, and at its other end communicates with the passage *d* by a sharp turn of nearly a quarter of a circle, so that the gas and air may enter as nearly as possible at right angles to the passage *d*. In order to secure the proper diffusion in the passage *d*, I may employ curved deflections in passage *d* above the gas and air inlet. The lower side of the passage *d'* at the end *e* is provided with a series of narrow slots for the admission of air for admixture with the gas in the usual manner.

The gas-burner is supported in its place in the following manner: B B are andirons, the horizontal bar of each of which is provided

with a bend, *b*, which receives and supports a trough or water-receptacle, C, provided at each end with the vertical flanges *c*. These flanges are slotted vertically, and the burner D is received in said slots. These slots may be of different depths, to correspond with the different dimensions of the burner, or they may be of the same depth, in which case I provide the burner D with the loop *f* at the smaller end of the burner, so that the upper surface of the burner shall be on a level. When this construction is employed, the burner is easily reversible and the gas-supply pipe attached to either side of the fire-place, as may be most convenient. I cover the front side of the burner with a removable curved plate, C', having on its convex side a design representing a log of wood. This plate at its lower side is provided with the shoulder *g* and lip *g'*. When the plate is in position, the lip lies against the inner edge of the trough, the shoulder resting upon the upper edge of the same, while the upper edge of the plate rests upon the upper part of the burner. This plate is thus made to form an extension of the front wall of the trough or water-receptacle, and the front side of the latter may be given a design to correspond with that of the curved plate, if desired; but this is not necessary. The flanges of the trough C are provided with shoulders *h*, which receive the lower edge of a plate, H. This plate has a lower curved portion, *i*, so that the main front surface of the same is carried forward into close proximity to the burner-orifices. This plate is provided with one or more arms, I, at its top, which rest against the back of the casing and support the plate in a vertical or nearly vertical position. The front of this plate is covered with fibrous asbestos or equivalent material attached in such a manner to the plate as to form a fibrous covering slightly projecting from the same.

When the gas is burning, owing to the admixture of air therewith, the flame is mainly of a bluish tint and gives little or no light. The asbestos, being arranged within the influence of the flame of the burners, is heated at different points to incandescence and affords a pleasant and agreeable light, the burner being concealed by the covering-plate C'.

In the modification shown in Figs. 4 to 6, inclusive, the fire-place is provided with a

steam-radiator, J, which is supported above the casing A, in this instance upon pipes J' J'. These pipes connect at their lower ends with a water or steam generator reservoir, H', in rear of the plate H. The construction of my radiator is otherwise the same as that shown in my former patent, No. 344,511. The asbestos outer front of the plate H assists materially in heating the water and generating steam in the reservoir H'. It will also be seen that I also provide the casing A with a front, K, a mantel, L, and ornamental panel M, covering the radiator. These parts may be of any desired or preferred pattern.

What I claim, and desire to secure by Letters Patent, is—

1. The combination, with a gas-burner for fire-places, of a support therefor, and a covering-plate for the burner, loosely engaging the burner-support below the body of the burner, and extending upward and resting against the upper part of the burner, whereby the said burner is concealed from view by a plate capable of being ornamented with any preferred design, and which is removable at pleasure, substantially as described.

2. The combination, with the trough or water-receptacle and supports for the same, of a gas-burner supported by said trough or receptacle, substantially as described.

3. The combination, with a trough or water-receptacle and a gas-burner supported thereon, of a plate provided with a coating of asbestos supported on said water-receptacle and burner in a vertical position near the burner orifices, substantially as described.

4. The combination, with the andirons B B, of the trough or water-receptacle provided with

the slotted end flanges of the burner mounted in said slots, substantially as described.

5. The combination, with the trough or water-receptacle and supports therefor, of a burner mounted on said trough and supported thereby, and a separate curved covering-plate provided with a shoulder and lip on its lower side, extending from said trough to near the top of the burner, substantially as and for the purpose specified.

6. The combination, with the trough or water-receptacle provided with the slotted end flanges, of a burner supported on said flanges, a plate provided with a projecting coating of fibrous asbestos supported upon said flanges, and a separate curved covering-plate supported upon the front edge of said trough and extending to near the top of the burner, substantially as described.

7. The combination, with a gas burner, of a vertical plate provided with a coating of asbestos in close proximity to the said burner, a water-reservoir upon the back of said plate, and a radiator above said reservoir connected thereto, substantially as described.

8. The combination, with a casing fitting a fire-place, of a gas-burner, a water-reservoir, a steam-radiator above such reservoir, a mantel connected with said casing, and a perforated panel covering the radiator, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

QUIMBY S. BACKUS.

Witnesses:

FRANK B. SPALTER,
ROLLO HALE.