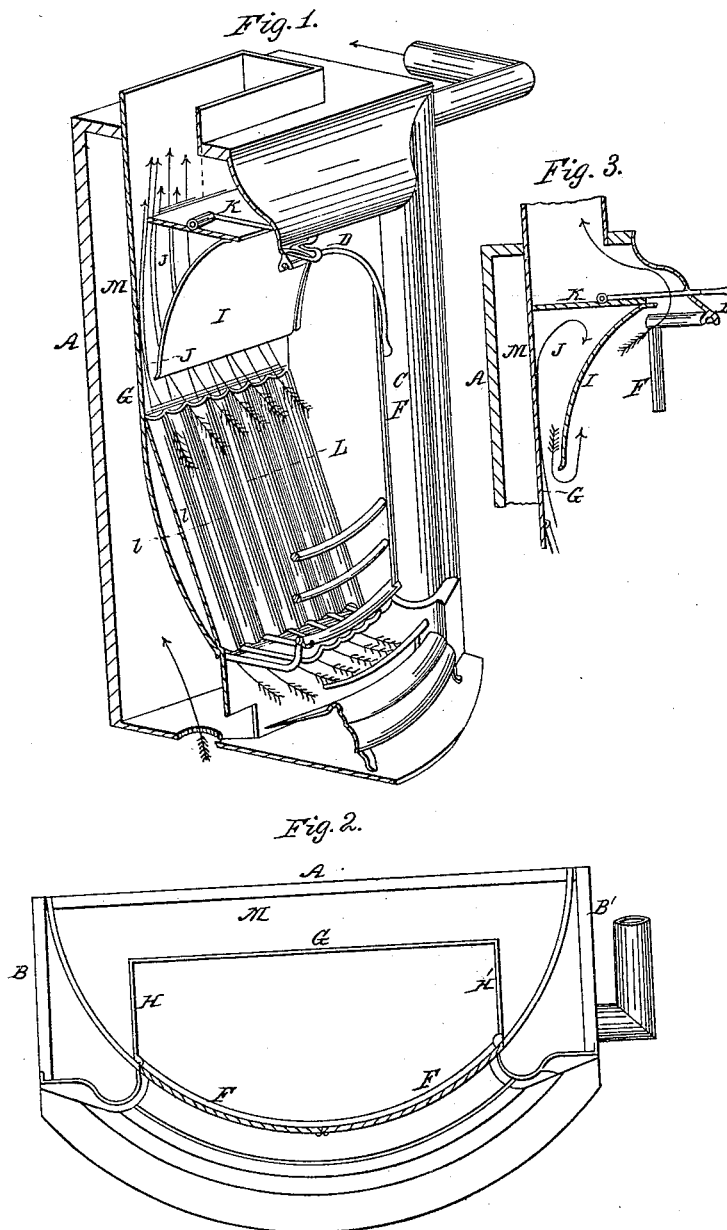


F. M. ROGERS.

Fire Place.

No. 53,880.

Patented April 10, 1866.



Witnesses:
J. M. Rogers
James H. Lyman

Inventor:
J. M. Rogers.
By Knight Bros
attys.

UNITED STATES PATENT OFFICE.

FRANCIS M. ROGERS, OF CINCINNATI, OHIO.

FIRE-PLACE.

Specification forming part of Letters Patent No. 53,880, dated April 10, 1866.

To all whom it may concern:

Be it known that I, FRANCIS M. ROGERS, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Fire-Places; and I do 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.

This is an improvement in the open fire-place, and includes provisions for effecting more perfect combustion and consumption of smoke, for preservation of the fire-back, for conducting off the ashes, and for a more thorough radiation and utilization of the heat.

Figure 1 is a perspective view of one-half of the fire-place. Fig. 2 is a horizontal section. Fig. 3 is a longitudinal section of the upper part.

A B B' represent the masonry composing the back and sides of an ordinary chimney.

The mantel C may be of cast-iron, and be provided at its upper part or breast with a hood, D, which hood, in conjunction with the bottom bar, E', of the grate E, may serve as guides for a pair of sliding doors or blowers, F F', having the form of cylindrical segments.

G is the back, and H H' are the cheeks, of my fire-place. I is a curved crown-plate, so secured to the cheeks H H' as to leave between it and the back G a space, J, which, when closed at top by a damper, K, becomes a reverberatory chamber, within which the smoke curls, and from which it emerges again in a highly-heated condition and undergoes ignition at the lower edge of the crown, where the entire volatile emanations are deflected

forward so as to escape into the discharge-flue through a throat formed by the breast and the upper edge of the crown-plate aforesaid.

The fire-back proper, L, is a corrugated plate, which, in conjunction with the back G, forms a series of flues, l, for the escape of ashes. For this purpose the corrugations are so arranged as to bring the lower end of each passage or ash-flue l over an opening of the grate-bottom. When it is desired to have a direct exit either for the ashes or for the smoke the damper K is drawn forward so as to open a direct exit to the chimney.

The space M between the fire-chamber and the chimney may form an air-heating chamber for warming the atmosphere of the same room, or any other within the same building.

The entire fire-place, as above described, may either be set in flush with the chimney-breast or may project more or less into the apartment.

I claim herein as new and of my invention—

1. In the described combination, the back G, crown-plate I, and damper K, forming a smoke-consuming and reverberating chamber, J, throat, and direct exit, substantially as set forth.

2. The series of ash-flues l, arranged as described, in combination with the direct-exit flue, for the purposes set forth.

In testimony of which invention I hereunto set my hand.

F. M. ROGERS.

Witnesses:

GEO. H. KNIGHT,
WM. T. BOWERS.