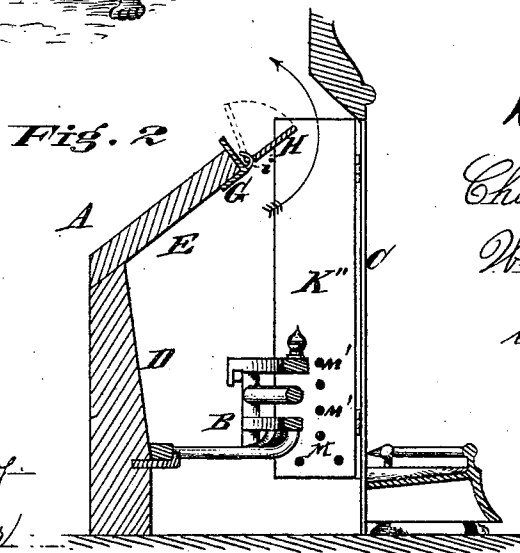
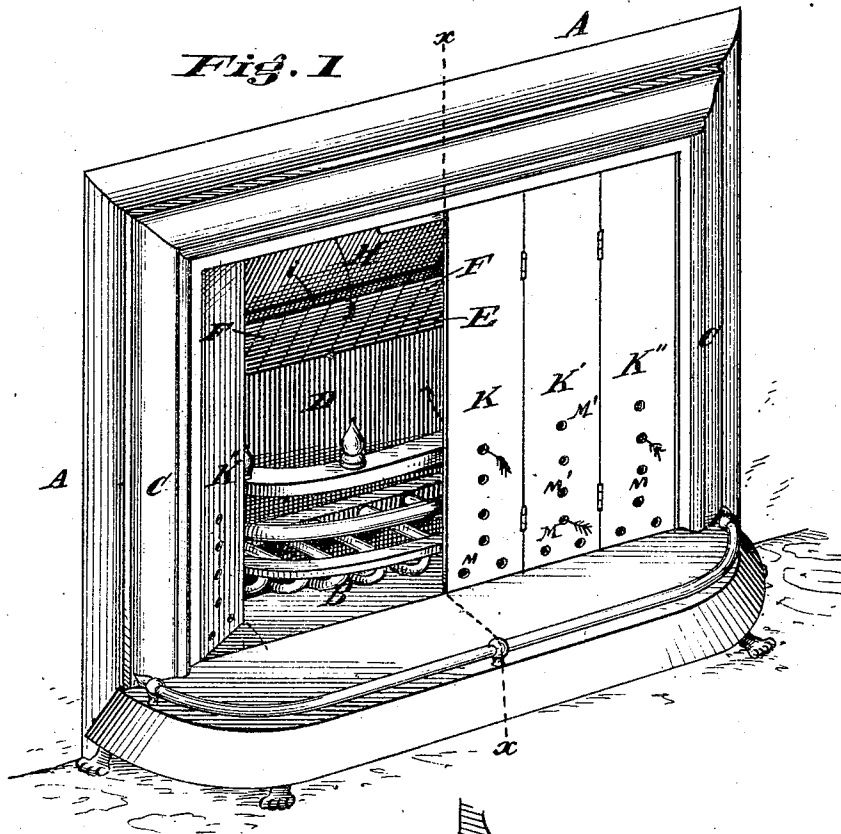


C. S. RANKIN.
Fire-Place.

No. 167,020.

Patented Aug. 24, 1875.



Inventor
Charles S. Rankin per
Wm. Hubbell Fisher
his atty in fact.

Attest
D. O. Kennedy
John Miller

UNITED STATES PATENT OFFICE.

CHARLES S. RANKIN, OF COLLEGE HILL, OHIO.

IMPROVEMENT IN FIRE-PLACES.

Specification forming part of Letters Patent No. **167,020**, dated August 24, 1875; application filed June 19, 1874.

To all whom it may concern:

Be it known that I, CHARLES S. RANKIN, of the town of College Hill, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fire-Places, of which the following is a specification:

My invention consists in providing fire-places with double doors permanently hinged to the jambs, to be made use of either as a summer front or as a blower when unfolded. Each door consists of a series of leaves, capable of being folded together, and is attached to the side of one of the jambs, which have recesses formed in their sides, into which the respective doors can be folded, so as to be out of the way, and wholly uncover the fire-place.

In the accompanying drawings, Figure 1 is a view in perspective of a grate embodying my improvements, one of the folding doors being fully unfolded, one leaf only of the other being seen; and Fig. 2 is a transverse vertical section of the grate, shown in Fig. 1, the section being taken at the dotted line *xx* in Fig. 1.

A is the grate, B the basket, C C the jambs, D the back, and E the crown, of the grate. This crown is composed of narrow tiles F, their rear ends supported by the back D, and their front ends by an angle-bar, G. The plate H, hinged to this angle-bar at *i i*, performs the function of narrowing or enlarging the throat of the flue at the pleasure of the operator. Each folding door is here composed of three vertical leaves, K K' K'', hinged together at their edges, near the top and bottom, the leaf K'', nearest the jambs, being hinged to the latter. A recess in the side of the jamb receives the door, when folded up, thus enabling the latter to be placed entirely out of the way. The number of leaves employed in each door may be varied without altering the principle of this part of my invention. In the

leaves of the doors are the openings M, whose purpose and office have been already mentioned. Higher up I also form openings M'. When the doors are unfolded, if it were not for these openings the air would only enter below the leaves of the door, and through the openings M, and the heat of the fire be increased to such an intensity that the doors would soon be heated to a red heat, and be warped and burned. These openings, in conjunction with the doors when unfolded, act as a blower to a limited extent, until the fire is well kindled, and the combustion increased to a moderate degree, but prevent a high degree of combustion, because they distribute cold air above and in front of the bed of the fire, and thus by diminishing the rarefaction of the air in the flue reduce and restrain the velocity of the draft and the intensity of the combustion.

I do not claim, broadly, a folding front for fire-places, as that is embodied in Patent No. 79,391. I am also aware that articulated fire-screens have been so attached to fire-places that they might be folded against the front face of the jambs. But I am not aware that fire-places have ever before been provided with double folding doors, which could be folded into recesses in the side of the jambs, leaving the front of the jambs wholly intact, as I have shown and described.

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

In combination with a fire-place having recesses in the sides of its jambs, double folding doors, which are permanently hinged to the sides of the jambs, and are capable of being folded into the recesses therein, substantially as specified.

CHARLES S. RANKIN.

Witnesses:

T. W. DUSTIN,
A. C. WAMSLEY.