

R. P. THOMAS.

Improvement in Fire Places.

No. 121,911.

Patented Dec. 12, 1871.

Fig. 1.

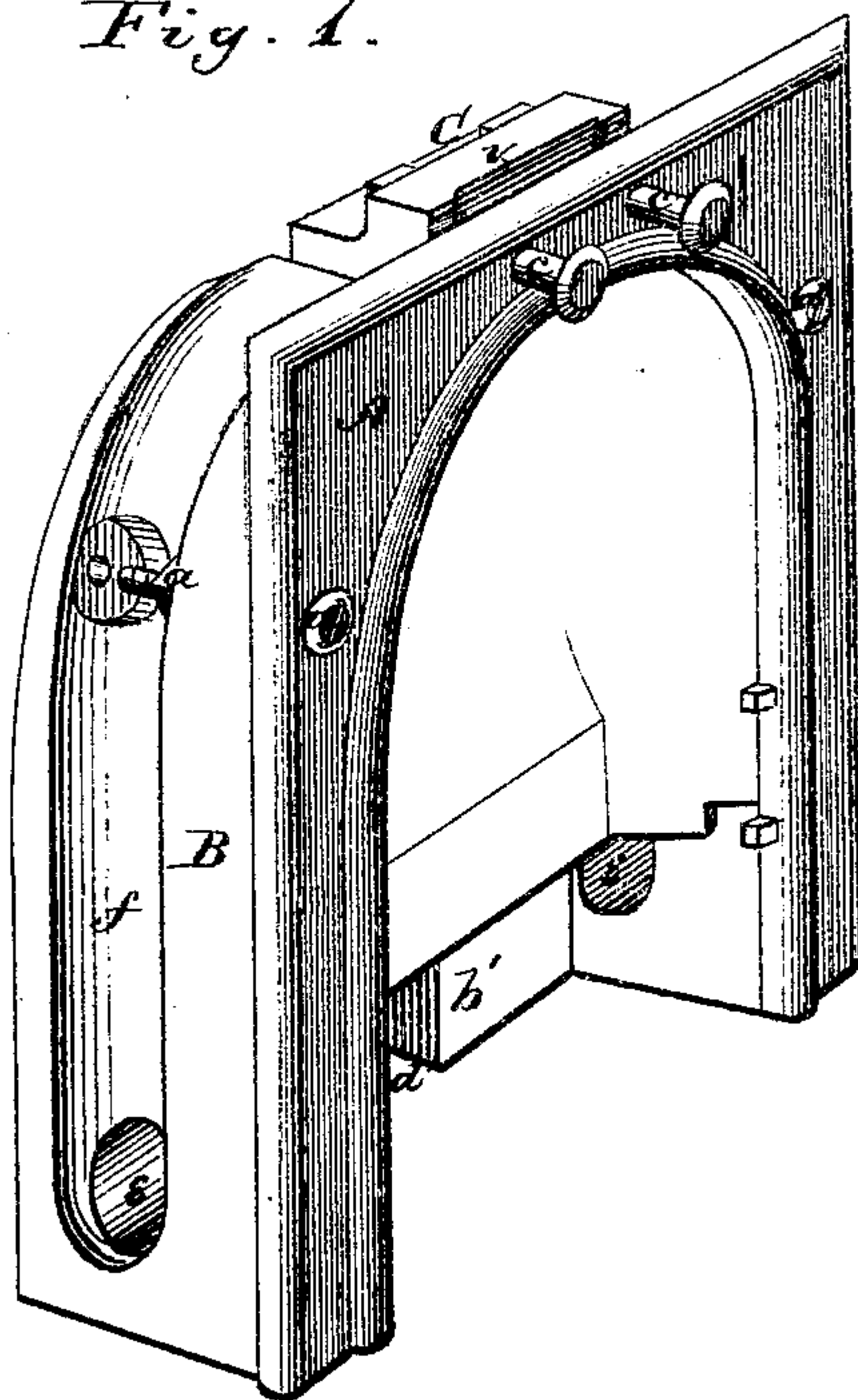
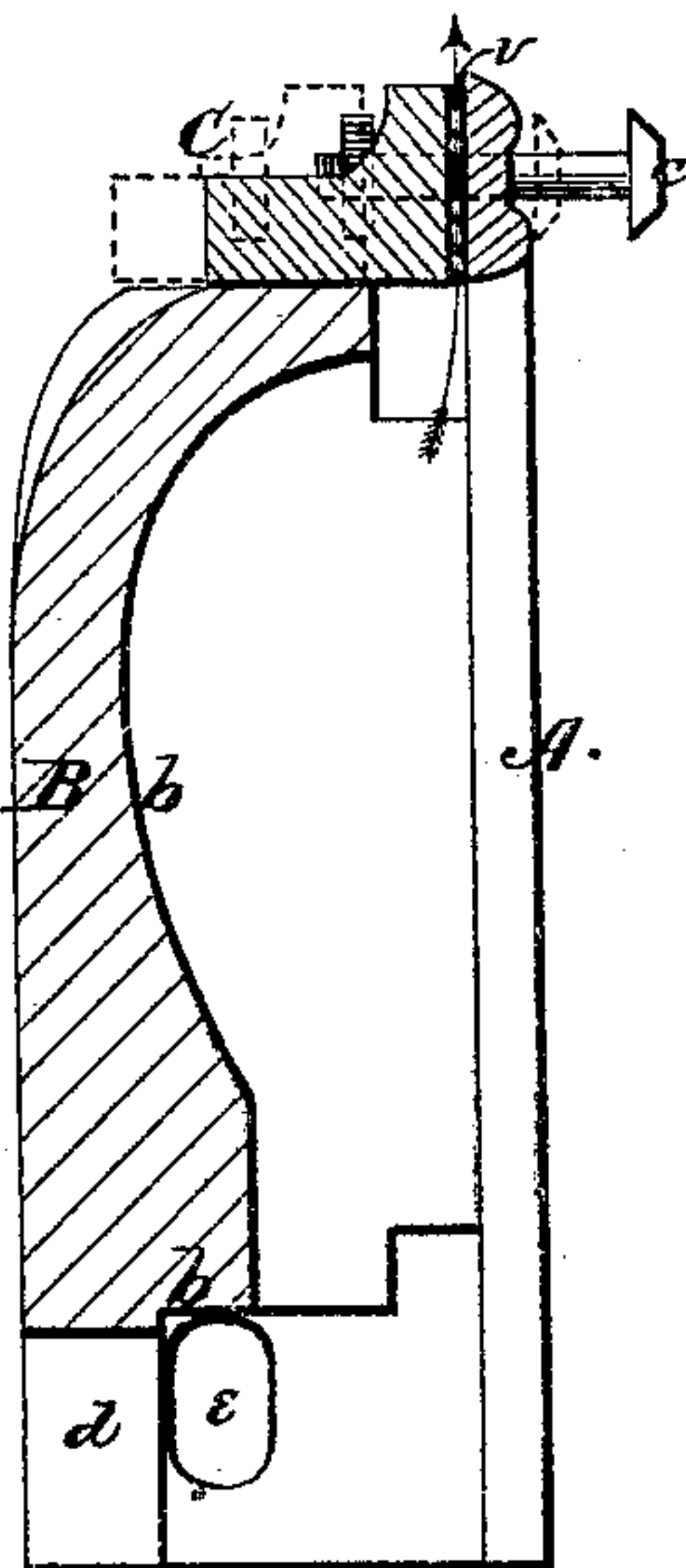


Fig. 2.



Witnesses.

C. F. B. *[Signature]*  
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His Atty.

# UNITED STATES PATENT OFFICE.

REES P. THOMAS, SCIOTOVILLE, OHIO.

## IMPROVEMENT IN FIRE-PLACES.

Specification forming part of Letters Patent No. 121,911, dated December 12, 1871.

*To all whom it may concern:*

Be it known that I, REES P. THOMAS, of Sciotoville, in the county of Scioto and State of Ohio, have invented an Improved Fire-Place Back; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a perspective view, and Fig. 2 a central vertical section.

Similar letters of reference in the accompanying drawing denote the same parts.

This invention relates to that class of fire-places which is provided with fire-clay backs; and the invention consists, first, in constructing the back in a single piece of fire-clay, molded to the proper shape, and adapted to have different kinds of fronts or facings secured to it as may be desired; secondly, in constructing the back in a single piece, molded of fire-clay, with side flues and dust-holes, as hereinafter described; and thirdly, in the construction of the damper by which the direct draught is regulated.

In the drawing, A is the front; B, the back; C, the damper; and *c c*, the rods by which the latter is adjusted to regulate the draught. The back is molded in a single piece, with a concave fire-back, *b*, coming well forward at the grate, so as to make a very thick and indestructible wall at that point. Underneath the grate it is recessed, as shown at *b'*, said recess extending back of the grate, so that the dust and ashes will not accumulate directly beneath the fire, and thereby choke the draught. A dust-hole, *d*, is made through the center of the back wall of this recess, and two other dust-holes, *e e*, are made through the side walls at each end of the recess. These latter holes communicate with draught-flues *f f* on each edge of the back B, as shown in Fig. 1, made by deeply grooving the edges and top of said back when it is molded. The direct draught is in line of the arrows in Fig. 2, and is regulated by the damper, which is also constructed of fire-clay, and can be moved back and forth by means of the two rods *c c*. To prevent an unskillful person from entirely closing the draught, the front edge of the damper is recessed,

as shown at *v*, so that however tightly it may be closed, there will always be sure escape for the smoke and gases. The holes *e e* and flues *f f*, while ordinarily employed to carry off the dust and light ashes, may be employed as an indirect draught-flue, when a slow fire is required, by simply closing the front side of the ash-pit by any means, as, for example, a sheet-iron fender, high enough to reach the top of the grate. A slow draught will in that case be established down through the burning coal into the ash-pit, and thence through the holes *e e* and up the flues *f f*. The holes *e e* are also convenient in setting the back, and in moving it from place to place. The back when molded is provided with suitable holes to admit the rods *a a*, by which the front is secured to it; and is also provided with spaces to accommodate the screw-nuts *n*, which hold the rods in place. The back and front are designed to be first attached together, and then set into the chimney. In the summer the whole can be removed. In inserting and removing the fire-place no mason work is required, and no lime or mortar necessary. Thus all the dust and dirt incident to the setting up and removal of the old-fashioned fire-frame every fall and spring are avoided, while the necessity of a skilled workman is obviated, and a considerable item of semi-annual expense is done away with.

Having thus described my invention, what I claim as new, is—

1. The fire-place, consisting of a cast-iron front, A, and a fire-clay back, B, molded in a single piece and attached to the front by rods *a a* and nuts *n*, substantially as and for the purposes set forth.

2. The back B, molded of fire-clay in a single piece, with holes to receive the rods *a a*, and with the side grooves *f f* and the dust-holes *e e*, substantially as and for the purposes herein set forth.

3. The damper C provided with the front recess *v* and adjusted by means of rods *c c*, substantially as and for the purposes set forth.

REES P. THOMAS.

Witnesses:

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A. Y. THOMAS.

(154)