

G. W. PURCEL.  
FIRE-FRONT.

No. 191,715.

Patented June 5, 1877.

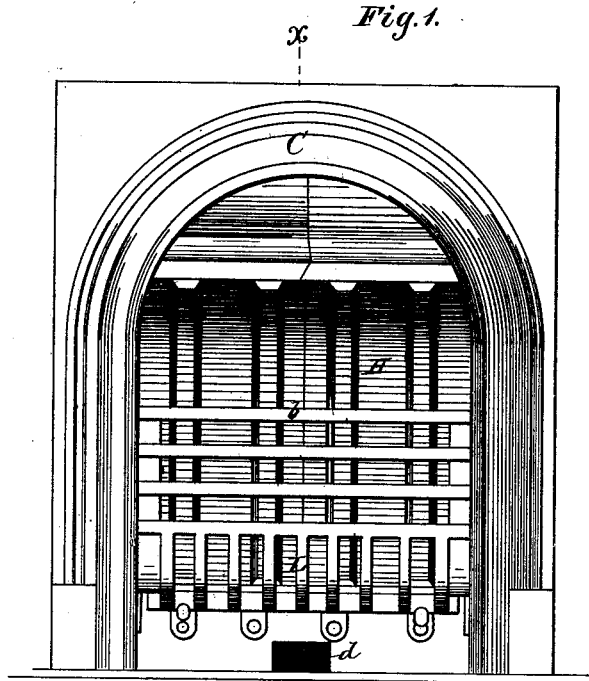


Fig. 2.

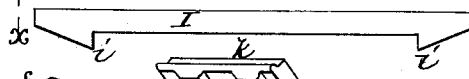
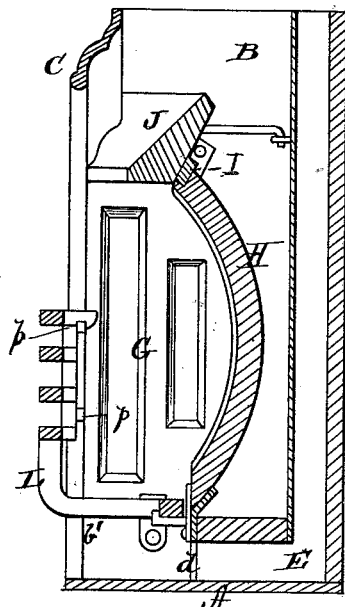
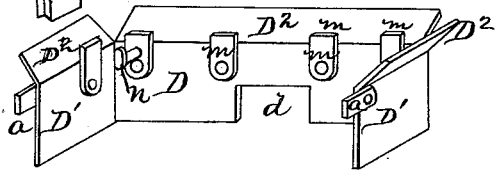


Fig. 3.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

GEORGE W. PURCEL, OF ZANESVILLE, OHIO.

## IMPROVEMENT IN FIRE-FRONTS.

Specification forming part of Letters Patent No. **191,715**, dated June 5, 1877; application filed April 28, 1877.

*To all whom it may concern:*

Be it known that I, GEORGE W. PURCEL, of Zanesville, in the county of Muskingum, and in the State of Ohio, have invented certain new and useful Improvements in Fire-Fronts; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a fire-front for fire-place chimneys, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a front elevation of my invention. Fig. 2 is a transverse vertical section of the same through the line *x x*, Fig. 1. Fig. 3 is a detailed view, showing the different parts detached.

A represents the hearth, and B the brick-work of a fire-place. C is the front, made in any suitable form.

On the hearth A is placed a cast-iron base, formed of a back, D, and end pieces D<sup>1</sup> D<sup>2</sup>, extending forward, at or nearly at right angles to the back, to the front C, and lugs *a* on said end pieces fitting behind a shoulder, *b'*, in the front C.

In the back D of this base is an opening, *d*, communicating with the dust-flue E of the chimney.

The base D D<sup>1</sup> is at its top provided with flanges D<sup>2</sup>, extending upward and rearward, as shown, to support the jambs G G and backs H H, which are made of fire-clay, substantially in the form shown in Fig. 3.

Each jamb G has at its inner front edge a rabbet or shoulder, *e*, extending from the bottom upward for a suitable distance, and fitting behind the shoulder *b'* of the front C; and in the top of the jamb, on the outer side, is an inclined groove, *f*, in which fits a hook, *i*, formed in the edge of a bar, I, said bar running across the fire-place near the top.

The backs H H are made in curved form,

as shown, with longitudinal ribs *h* on the front, and have along their upper edges rabbets or shoulders *h*, on which the bar I lies to hold them in position.

The bottom edges of the jambs G and backs H are held in place by buttons *m*, pivoted on the inner side of the base D D<sup>1</sup>.

The bar I stands in an inclined position, as shown in Fig. 2, its ends being built into or otherwise fastened in the brick work B; and the bar supports the top plates J J, which are made angular in form, and provided with suitable side pieces to close the ends over the jambs.

L represents the grate, which is supported upon studs *n* projecting from the back D of the base, and upon lugs *p* projecting from the inner edges of the front C.

The tile backs, jambs, and top plates may be made of any size desired for any sized front.

In building this fire-place the base, backs, and jambs are placed in position, then mortar or cement filled in behind up to the top, and with a trowel it is spread on thicker above, and then the top plates put on. This makes a solid wall, and the fire-place throws out more heat and saves fuel.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The cast-iron base D D<sup>1</sup>, provided with flanges D<sup>2</sup>, lugs *a*, buttons *m*, and studs *n*, as and for the purposes herein set forth.

2. In a fire-place, the tile-jambs G G and tile-backs H H, constructed substantially as described, and for the purposes set forth.

3. The combination of the cast iron base D D<sup>1</sup>, tile-jambs G G, tile-backs H H, and top bar I, with hooks or shoulders *i*, substantially as and for the purposes herein set forth.

4. The top plates J J, in combination with the bar I, backs H H, and jambs G G, substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of April, 1877.

GEORGE W. PURCEL.

Witnesses:

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