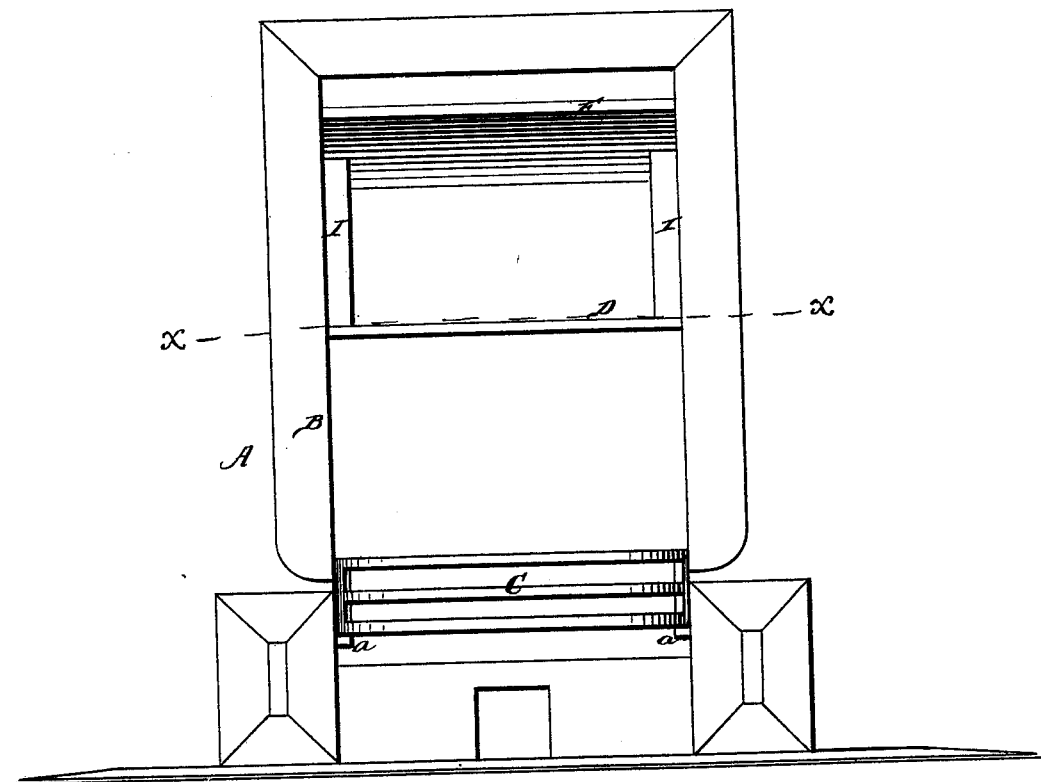


J. A. EWING.  
Fire-Front.

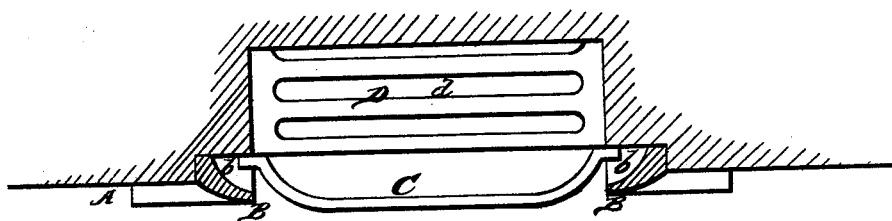
No. 202,799.

Patented April 23, 1878.

*Fig. 1.*



*Fig. 2.*



WITNESSES

*Chas. Emmett,*  
*James J. Sheehy.*

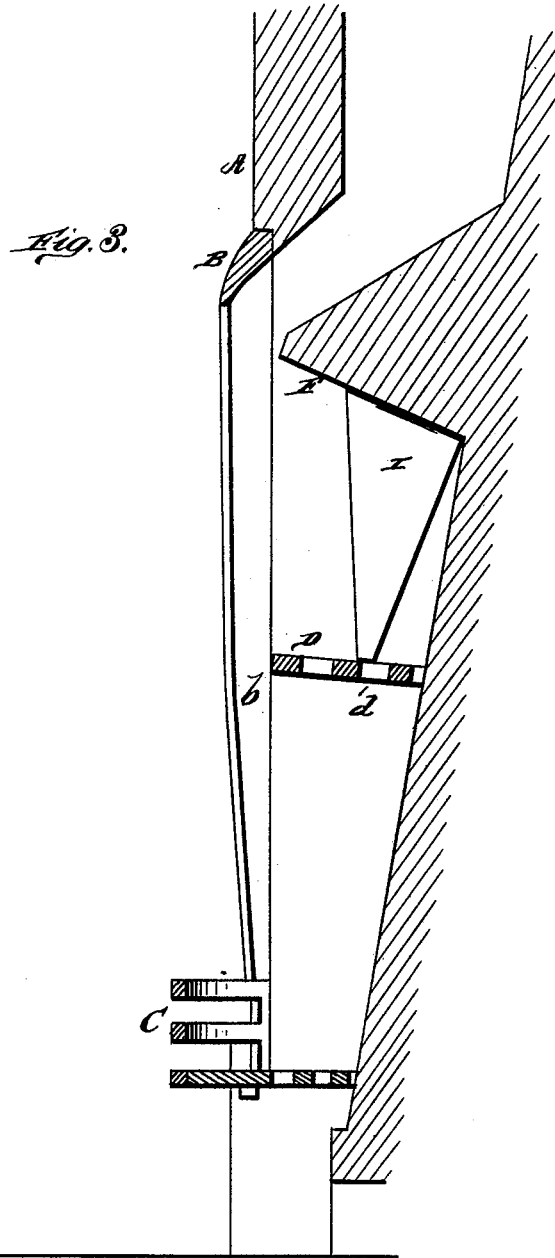
INVENTOR

*John A. Ewing*  
*Gilman Smith & Co*  
ATTORNEYS

J. A. EWING.  
Fire-Front.

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WITNESSES

*Robert Emmett*  
*James J. Sheehy.*

INVENTOR,

*John A. Ewing*  
*Gilmore Smith & Co.*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

JOHN A. EWING, OF BERLIN CROSS-ROADS, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO I. V. SHERWOOD, OF SAME PLACE.

## IMPROVEMENT IN FIRE-FRONTS.

Specification forming part of Letters Patent No. 202,799, dated April 23, 1878; application filed March 16, 1878.

*To all whom it may concern:*

Be it known that I, JOHN A. EWING, of Berlin Cross-Roads, in the county of Jackson and State of Ohio, have invented a new and valuable Improvement in Fire-Fronts; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front view of my fire-front. Fig. 2 is a transverse view taken through the line  $x x$  of Fig. 1, and Fig. 3 is a vertical sectional view thereof.

The nature of my invention consists in the construction and arrangement of a fire-front having on each side a vertical groove to catch the smoke and dust and convey the same up into the chimney; also, in the combination of the parts, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents the brick-work, to which the fire-front B is secured in any suitable manner. This fire-front is on the inside, on each side, provided with a vertical groove,  $b$ , which prevents the smoke and dust from coming out into the room by a side wind, the smoke following said grooves up into the chimney.

C is the fire-basket or basket-grate, which is supported upon lugs  $a a$  on the inner edges of the front A.

A suitable distance above the grate C is

placed a horizontal plate, D, provided with slots or perforations  $d$ , which checks the gas and heat from going up the chimney, giving the gas time to burn between said plate or check D and the bridge F above it, and thus all the burning qualities of the coal are utilized.

The bridge F is supported upon cast-iron pieces I I, arranged substantially in the manner as shown, and of such shape as to give the bridge a gradual slope to throw the heat out into the room, and also direct the smoke up the chimney.

Heretofore a slotted plate which checks the gas and heat from going up the chimney, giving the gas time to burn between said plate, and a gradually-sloping bridge, arranged below the entrance to the chimney, have been used. Hence I lay no claim to such devices; but

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

1. In a fire-front, the grooves  $b b$  formed on the sides of the front B, substantially as and for the purposes set forth.

2. The combination of the front B, having side grooves  $b b$  and lugs  $a a$ , the basket C, check D, and gradually-sloping bridge F, substantially as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN ALBERT EWING.

Witnesses:

J. A. DEMPSEY,  
WILLIAM CUTTER.