

W. C. WREN & W. MEYRICK.

Furnace Grate-Bars.

No. 149,177.

Patented March 31, 1874.

Fig. 1.

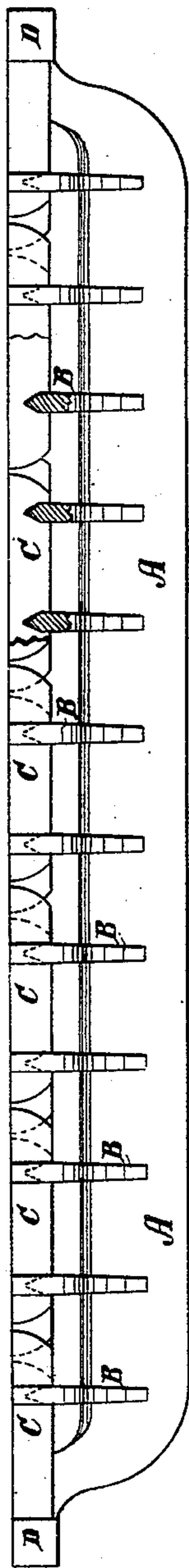


Fig. 2.

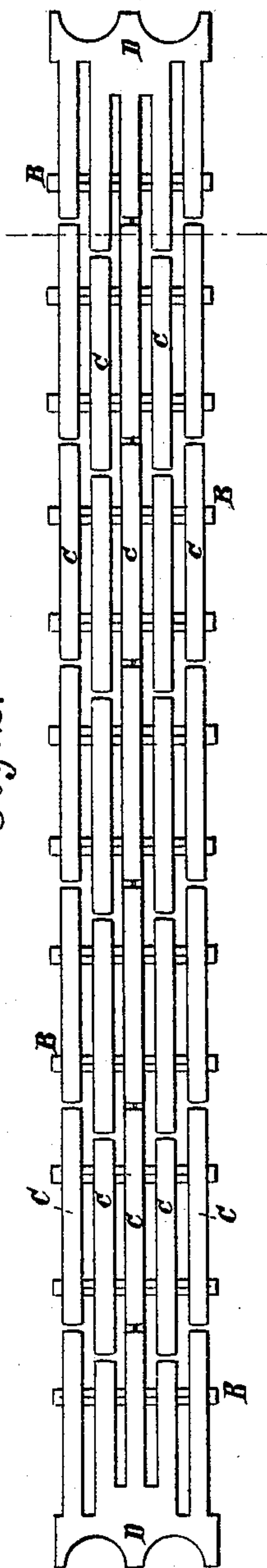


Fig. 3.

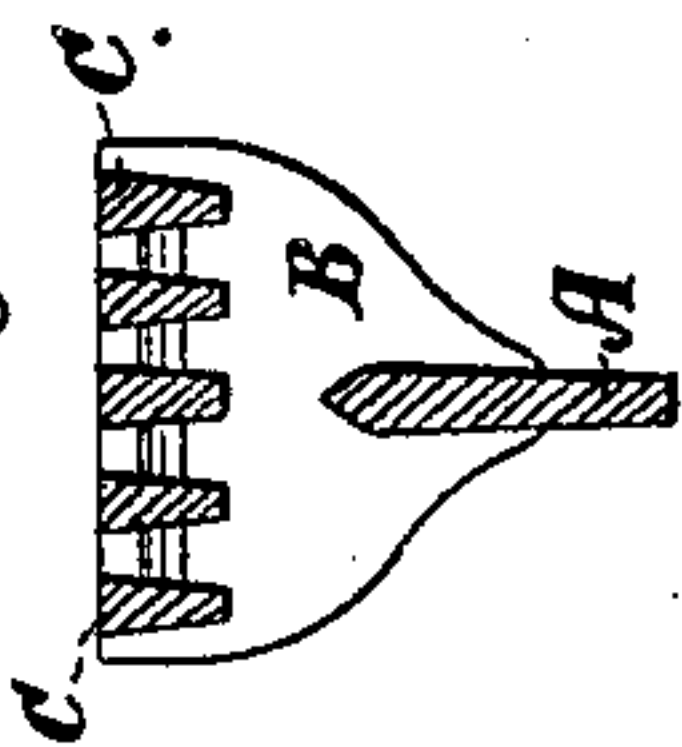
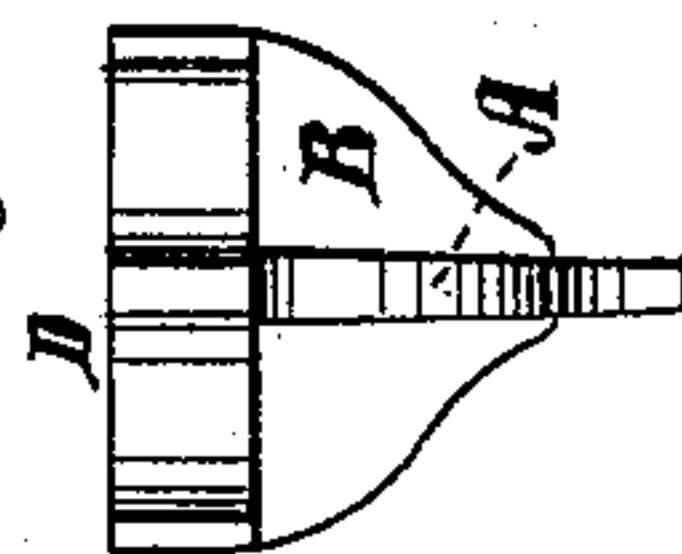


Fig. 4.



WITNESSES.

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WILLIAM C. WREN AND WILLIAM MEYRICK, OF JEDDO, PENNSYLVANIA.

## IMPROVEMENT IN FURNACE GRATE-BARS.

Specification forming part of Letters Patent No. **149,177**, dated March 31, 1874; application filed March 7, 1874.

*To all whom it may concern:*

Be it known that we, WILLIAM C. WREN and WILLIAM MEYRICK, of Jeddo, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Furnace Grate-Bar, of which the following is a specification:

Our invention consists of short parallel bars for holding the coal, mounted above a long supporting-bar extending across the furnace, by short transverse plates, which hold the short bars, which sustain the heat so far above the supporting-bar that it is kept comparatively cool, and is not, therefore, liable to be warped, bent, or burned, nor to crack; and the bars which are subject to the heat, being made in short pieces, do not strain the supporting-bars. The short bars break joints at the meeting ends, to prevent a straight open space across the whole; also, to guide the rake used by the fireman in cleaning the fire better than they otherwise would.

Figure 1 is partly a side elevation and partly a sectional elevation of our improved grate-bar. Fig. 2 is a plan view. Fig. 3 is a cross-section on line *x x*, and Fig. 4 is an end elevation.

Similar letters of reference indicate corresponding parts.

A represents the long supporting-bar; B,

the cross-plates, and C the short coal-supporting bars. These bars C are arranged in groups of three, four, five, or more, side by side; and they are preferably supported on two of the cross-plates B, but they may be on one or more, as found best. In this example they are arranged in several groups, of which the two end groups are supported at the outer ends by the flange or head D, which rests on the wall. They break joints at the meeting ends, as shown in Fig. 2.

By having the bars C so short and proportionately thin, they will not spring and warp by the heat, and they relieve the supporting-bar from any strain, and, by being supported high above the supporting-bar, prevent it from being heated so as to be strained and warped or bent.

Having thus described our invention, we claim as new, and desire to secure by Letters Patent—

A furnace grate-bar, composed of supporting-bar A, transverse plates B, and short top bars C, combined and arranged substantially as specified.

WILLIAM C. WREN.  
WILLIAM MEYRICK.

Witnesses:

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MICHAEL McAVOY.