

W. NERACHER.

Fire-Proof Floors and Chimney Connections.

No. 138,096.

Patented April 22, 1873.

Fig. 1.

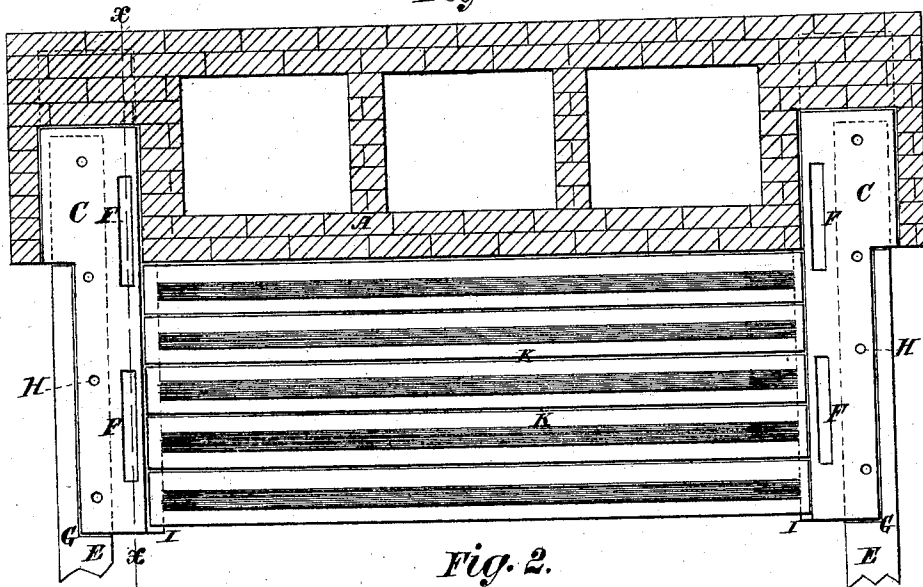


Fig. 2.

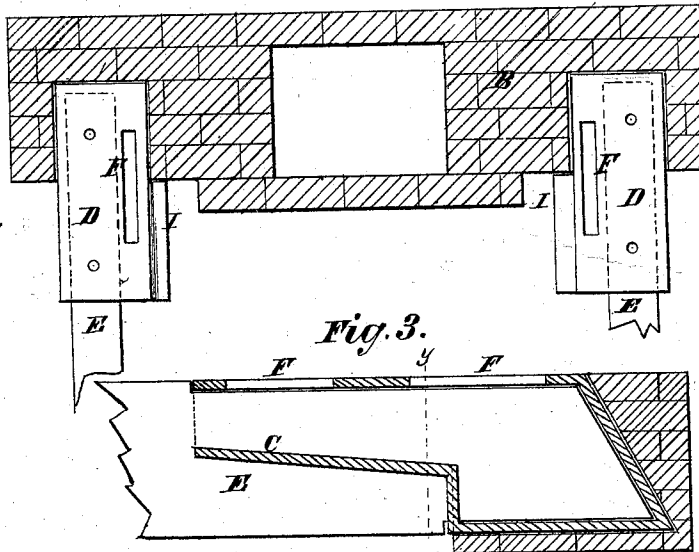


Fig. 3.

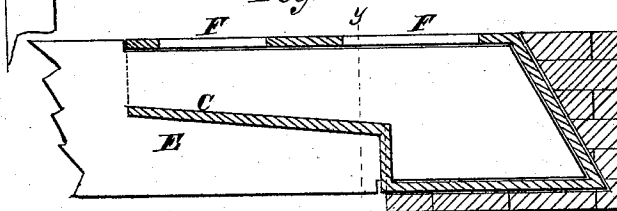
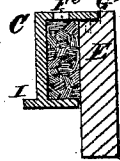


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM NERACHER, OF CLEVELAND, OHIO.

IMPROVEMENT IN FIRE-PROOF FLOORS AND CHIMNEY CONNECTIONS.

Specification forming part of Letters Patent No. **138,096**, dated April 22, 1873; application filed March 1, 1873.

To all whom it may concern:

Be it known that I, WILLIAM NERACHER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Fire-Proof Floor and Chimney Construction, of which the following is a specification:

For the connection of floors with chimneys, so as to insure the protection of the wood-work from fire when the chimneys are overheated, I propose to shoe the joists at the ends and some distance therefrom with cast-iron socket-pieces, thereby wholly inclosing the ends of the joists which enter the brick-work of the chimney, and the sides exposed to the heat outside thereof for a suitable distance, the sockets being much wider than the joists, with holes through the upper sides through which I fill the spaces not filled by the joists with cement or other non-heat-conducting and non-combustible material, the said spaces being on the sides exposed to heat, and in case of chimneys having fire-places, I have metal bars extending from one socket-piece to another in front of the brick-work, and resting on a rib in each socket-piece a little below the surface of the floor, so as to support a hearth of cement or other non-combustible material as far from the brick-work as the hearth need extend for safety.

Figure 1 is a horizontal section of a chimney designed for a fire-place, and a plan view of my arrangement for protecting against fire. Fig. 2 is a similar view of a chimney not intended for a fire-place. Fig. 3 is a longitudinal sectional elevation of one of the metal socket-pieces taken on the line *xx*, Fig. 1, and Fig. 4 is a cross-section taken on the line *yy* of Fig. 3.

A represents the section of chimney intend-

ed for a fire-place; and B, a chimney-flue only. C represents the socket-pieces, such as I propose to use with chimneys A, and D those adapted for chimney B. They are fitted into brick-work, as shown, to support the joists E, which extend into them to the bottom. The sockets are wider than the joists, and the excess of space is arranged on the side fronting the fire, and long slots or openings F are made through the socket-pieces at the top to those spaces, through which I pour in cement or any non-heat-conducting and incombustible material.

The extension of these metal socket-pieces outside the brick-work need not wholly inclose the joists, as shown in Fig. 1.

The joists may be rabbeted, as shown at G, to let the socket-pieces down flush with the top, and they may be nailed to the joists by nails through holes H. I represents ribs on the socket-pieces, at the lower inner corners, to support metal bars K, whereon the hearth may be built of cement or other substance. These will, probably, not be used except in connection with fire-places.

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

1. The combination, with the joists and chimneys, of metal socket-pieces C or D, and cement or other filling in the spaces between the joists and the sides of the socket-pieces next the fire, substantially as specified.

2. The combination, with said metal socket-pieces, of ribs I and bars K to support the hearth, substantially as specified.

WILLIAM NERACHER.

Witnesses:

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