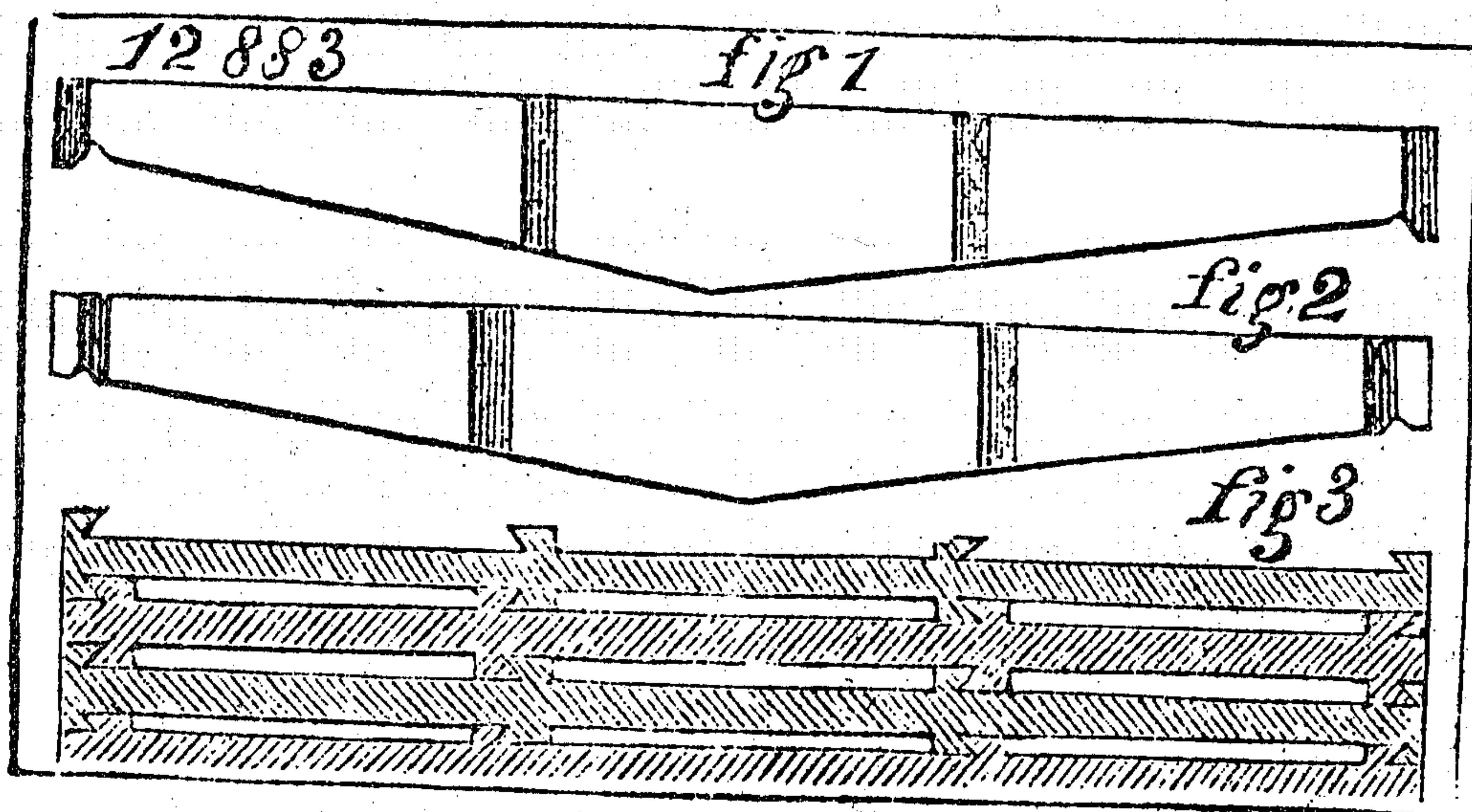


R. WICKS.
FURNACE GRATE BAR.

No. 12,883.

PATENTED MAY 15, 1855.



*Taken From Patent Office Report
1855-Vol. II.
Only Drawing Accessible (1913)*

UNITED STATES PATENT OFFICE.

ROBERT WICKS, OF NEW YORK, N. Y.

FURNACE GRATE-BAR.

Specification of Letters Patent No. 12,883, dated May 15, 1855.

To all whom it may concern:

Be it known that I, ROBERT WICKS, of the city of New York and the State of New York, have invented a new and Improved
5 Mode of Constructing Grate-Bars for Furnaces; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference
10 marked thereon.

The nature of my invention consists in casting a half dovetail on each side of the bar, (or on each side of a "cluster" of bars, when more than one are cast in one piece) in
15 such a manner as to interlock, and effectually prevent them from slipping off the bearing bars, while giving the greatest facility for removing burned or otherwise defective bars and inserting new one in their
20 place.

To enable others, skilled in the art, to make and use my invention, I will proceed to describe its construction and operation.

Figures 1 and 2 are side-views of the

grate-bars, in which *a, a, a, a,* are the half- 25 dovetails. When Fig. 2 is placed alongside Fig. 1, the perfect dovetail is formed; and thus repeated will form the entire set, as seen in Fig. 5. Figs. 3 and 4 are top-views of the bars, and show distinctly the mode 30 of joining.

It is obvious that with this arrangement the bars cannot leave their places, either endwise or sidewise, and the firmness of the whole set is thoroughly secured. 35

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

The construction of the grate-bars of furnaces with dovetails, or other analogous interlockments, so as to connect the bars together, keep them from twisting out of 40 place, or sliding from the bearing bars, while affording the greatest facility in removing defective and inserting new bars.

ROBERT WICKS.

Witnesses:

JOHN WINDT,
WM. RIPLEY.