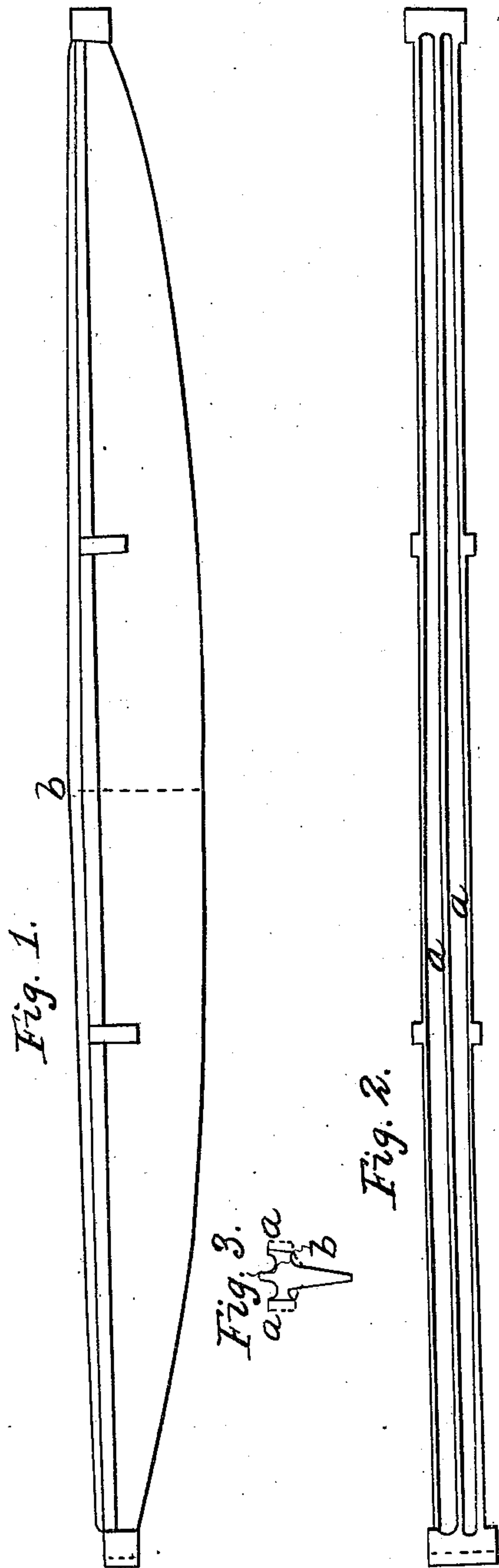


J. H. Fellows,

Furnace-Grate Bar.

N^o 5,035.

Patented Mar. 27, 1847.



UNITED STATES PATENT OFFICE.

JOHN H. FELLOWS, OF CINCINNATI, OHIO.

FURNACE GRATE-BAR.

Specification of Letters Patent No. 5,035, dated March 27, 1847.

To all whom it may concern:

Be it known that I, JOHN H. FELLOWS, of the city of Cincinnati and State of Ohio, have invented a new and Improved Furnace-Bar; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in an improved furnace bar as follows—viz: First, the common bar is generally made flat on the surface but the present invention has two grooves and a raised center ridge. The grooves fill with ashes from the fire of either coals or wood as the case may be, which being a nonconductor of heat keeps the bar from melting while the raised center ridge must always keep same cool. 2nd, the raised center ridge also prevents the possibility of drawing the ashes out from the grooves in the bar when cleaning the fire with the poker which is requisite to keep the space between the bars from filling up with clinkers and thereby stopping the draft—hence the ashes always remaining in the grooves protected by the center ridge keep the middle of the bar cool. It cannot therefore warp or get out of its place like the old bars. 3rd, on putting out the fires of either steam boats or land furnaces, which is desirable when the engine stops to save fuel and the time of the hands, bars frequently break down as soon as cold water

is thrown on the fire. Not so with the present invention. Cold water thrown on them makes the bed of ashes firmer in the grooves and the bars are not injured by being suddenly cooled like the common ones. 4th, the bars now in general use are made double so that when hot should one side give way the other must follow. This is avoided by the present invention being a single bar, which also gives a further advantage as they can be placed at any given distance from each other, so by widening the space give an additional draft which is generally desirable and more particularly with low furnaces.

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

The application of two grooves and a center ridge to furnace bars as more particularly described above.

Figure 1, in drawing is a side view of improved bar complete. Fig. 2, describes the top of the bar with the two grooves and center ridge. Fig. 3, is a front view without the end which are so fully exemplified by the drawings accompanying them as to render further description unnecessary.

JOHN H. FELLOWS.

Witnesses:

C. DANBY,
W. WATKINS,