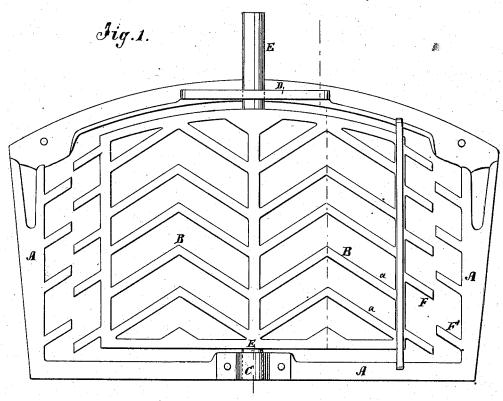
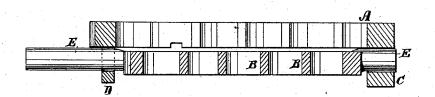
## J. MOORE, Jr. Stove-Grate.

No. 165,020.

Patented June 29, 1875.



Jig. 2.



WITNESSES:

A. Bennemendof M. F. Terry J. Moore, fr.
BY municipal Attorneys.

THE GRAPHIC CO.PHOTO -LITH. 39 & 41 PARK PLACE, N.Y.

## UNITED STATES PATENT OFFICE.

JONATHAN MOORE, JR., OF BROOKLYN, NEW YORK, ASSIGNOR TO J. L. MOTT IRON-WORKS, OF NEW YORK CITY.

## IMPROVEMENT IN STOVE-GRATES.

Spec fication forming part of Letters Patent No. 165,020, dated June 29, 1875; application filed April 17, 1875.

To all whom it may concern:

Be it known that I, JONATHAN MOORE, Jr., of Brooklyn, Kings county, New York, have invented a new and Improved Grate for Stoves, Fire-Places, and Furnaces, of which the following is a specification:

The invention consists in a grate comprising a laterally shaking and a dumping-under portion, and a stationary upper portion, both having points for crushing clinkers, so as to enable the same to pass through the grate-openings.

Figure 1 is a plan view of my improved grate, and Fig. 2 is a transverse section taken on the line x x.

Similar letters of reference indicate corresponding parts.

A is the stationary part of a fire-grate, of suitable form for an open fire-place stove, or other fire-place, and B is the dumping portion, which I propose to contrive also for shaking the fire by swinging laterally and without tilting on its pivots, by arranging it in a sufficiently lower plane than the stationary part for the points, which would otherwise strike against said part, to swing under it unobstructedly, thus making grates of any rectangular or equivalent form equally as practicable for side shaking as the round grates on a center pivot. I also construct the ends of the shaking part with points F, and make corresponding points

F' in the stationary part, toward and from which the shaking part swings, to crush the clinkers that may be worked off the grate, so that they will drop down through the opening made when the movable part swings away from the others; and in order to cause the clinkers to move along from the center portion of the grate to the openings I arrange the bars a of the shaker B to incline either to one or both sides of the lines in which they swing, as shown in Fig. 1, by which they push the clinkers forward better than straight bars would.

The bearings C D for the pivots E are, of course, extended downward from the main or stationary part sufficiently to hold part B below part A, and the front bearing is elongated to allow of the swinging of part B.

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

The combination of the laterally-shaking and dumping bottom section B, provided with clinker-breaking points F, with the stationary top section, having breaking-points F', as and for the purpose set forth.

JONATHAN MOORE, JR.

Witnesses:

G. W. MOORE, A. P. THAYER.