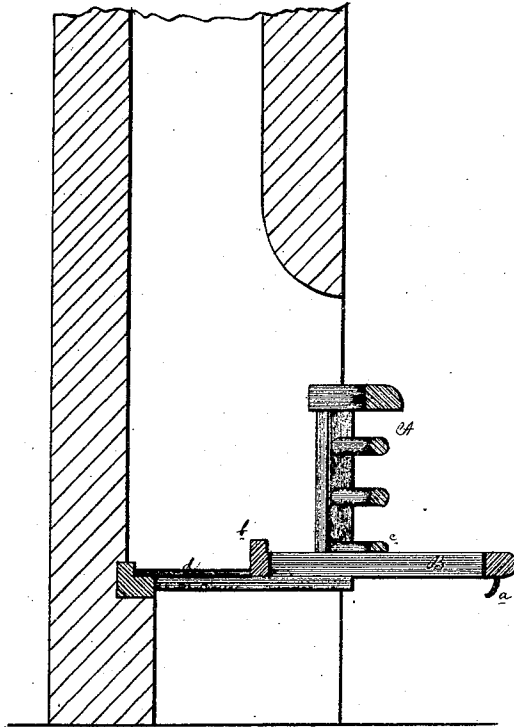


E. NORMAN.
Fireplace Grate.

No. 105,234.

Patented July 12, 1870.



Witnesses

Refus R Rhodes
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Inventor

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EMMA NORMAN, OF NEW ORLEANS, LOUISIANA.

Letters Patent No. 105,234, dated July 12, 1870.

FIRE-PLACE GRATE.

The Schedule referred to in these Letters Patent and making part of the same.

I, EMMA NORMAN, of the city of New Orleans and State of Louisiana, have invented a certain Improvement in Fire-Grates, of which the following is a specification.

My invention relates to the constructions of a grate or grate-basket, as they are commonly called, which I make in two parts, instead of having the whole cast in one piece, that are so combined that the bottom may be drawn out in front until the back edge-bar is brought into contact with the lower front cross-bar, my object being to open the grate at the bottom, and precipitate the contents of the grate on the hearth or in the ash-pan, or other receptacle below it, and thus to avoid the inconvenience of having to remove by hand said contents.

My improvement will be at once understood by referring to the drawing, which presents a sectional view of it, in connection with a fire-place, the line of bisection being through the center of the grate, from the front to rear of the same.

A marks the front bars or portion of a grate, and

B, my sliding bottom, the latter being provided with a hook, *a*, underneath and at the center of its front bar, as shown, in order to afford a convenient means for drawing out said bottom, by means of a bent poker or other suitable appliance, when the grate is hot, or by hand if it be cold, and two stops, *b*, to prevent it, by impingement against the lower cross-bar *c* of the front A, from being drawn wholly out of its place.

The side bars of the upright portion of the grate should be made broader at their front than at their rear ends, in order to provide parallel supports for the bottom, and yet fit snugly into the jams or sides of the fire-place, which experience has proved should always be inclined from the back of the fire-place outwardly, the better to deflect the radiated heat therefrom in a proper direction to make it effective for the purpose of warming the room or chamber in which the fire-place is placed.

These side bars should also be cast with rebates, *d*, on their inner sides, on which the side bars of the sliding bottom may rest, and so be brought down as nearly to the same horizontal plane occupied by the higher portions of said side bars as is compatible with a provision for a ledge-like outward projection at the tops thereof, to cover the seams or joints between the parts, and to prevent the intrusion of ashes or small pieces of coal into said joints, to interfere with the easy working of said bottom.

My invention is applicable to grates of all sizes and forms, however indefinitely they may be varied as to these two particulars or conditions, and it, therefore, is in no wise dependent on the mode in which grates may be constructed in other respects, nor to the particular form or configuration of them, nor to their dimensions. Grates made on my improved plan can be manufactured to suit all sizes and forms of fire-places with equal facility, and quite as cheaply as those of ordinary construction. They completely fulfill all the objects designed to be accomplished by them, and are, hence, the source of great relief to every one who is called upon to clean out grates, build fires in them, &c. This I have demonstrated by actual experiment.

I do not claim making a fire-grate in two pieces, broadly, for I am aware that this has been done by Kelly, and perhaps by others.

What I do claim is—

The sliding grate-base, consisting of the entire bottom, when the same is provided with flanged sides and the stops *b*, in combination with the corresponding flanged base-bars of the grate-frame, as herein described, for the purpose set forth.

EMMA NORMAN

Witnesses:

RUFUS R. RHODES,
H. N. JENKINS.