

J. A. LAWSON.  
Fire-Box for Stoves.

No. 201,255.

Patented March 12, 1878.

Fig. 1.

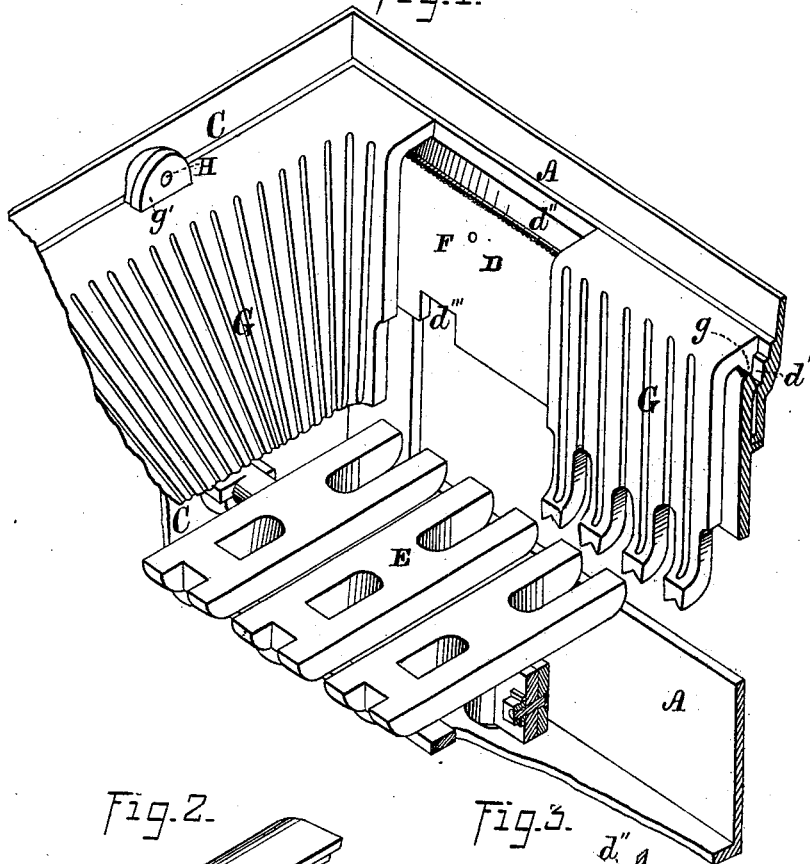


Fig. 2.

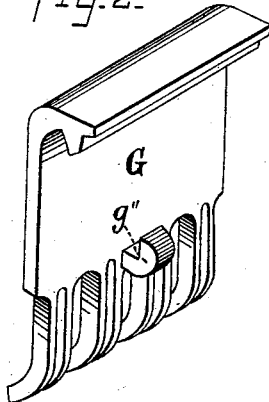
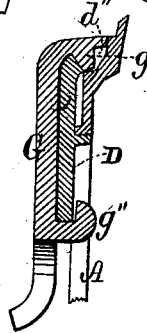


Fig. 3.



WITNESSES:

Geo. C. Hutchinson.  
Henry C. Hazard.

INVENTOR.

Geo. A. Lawson, by  
Prindle & Co. his Attys.

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Fig. 4.

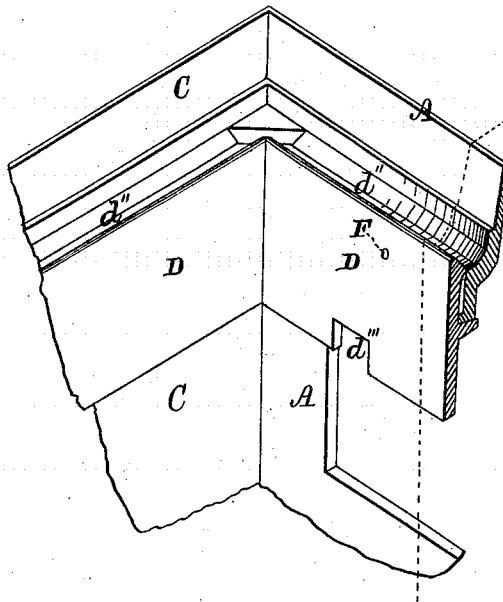
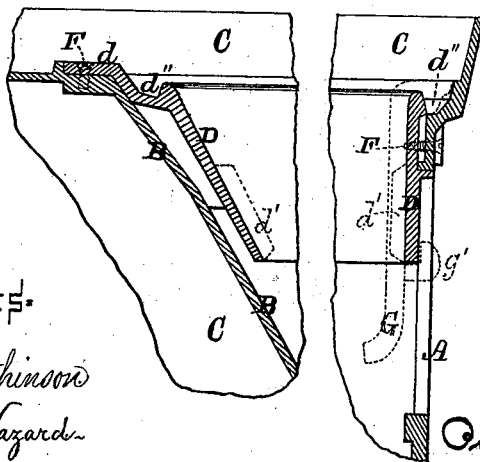


Fig. 5.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

JAMES A. LAWSON, OF TROY, NEW YORK.

## IMPROVEMENT IN FIRE-BOXES FOR STOVES.

Specification forming part of Letters Patent No. **201,255**, dated March 12, 1878; application filed October 19, 1877.

*To all whom it may concern:*

Be it known that I, JAMES A. LAWSON, of Troy, in the county of Rensselaer, and in the State of New York, have invented certain new and useful Improvements in Fire-Boxes for Stoves; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of a portion of a fire-box constructed from my improved sides or sections. Fig. 2 is a like view of the rear side of one of said sections. Fig. 3 is a vertical cross-section of the same and its supporting-frame. Fig. 4 is a perspective view of one corner of said fire-box, with its lining removed; and Fig. 5 is a cross-section of the same.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is, mainly, to enable the side walls and supports of the fire-box of a stove to be easily and quickly removed without interference with other portions of the stove; to which end it consists, principally, in the peculiar construction of the sections of the fire-box, substantially as and for the purpose hereinafter specified.

It consists, further, in the detachable frames which support the fire-box sections, substantially as and for the purpose hereinafter shown.

It consists, finally, in the fire-box as a whole, its several parts being constructed and combined in the manner and for the purpose substantially as hereinafter set forth.

In the annexed drawings, A represents the front wall, B the rear wall, and C and C the end walls, which inclose the space occupied by the fire-box and ash-pit of a stove, all of which walls, except the rear wall B, are vertical, while the latter inclines rearward and upward at the usual angle. Near their upper ends the walls A, C, and C are extended outward and upward, and then upward, as shown, while the rear wall B is carried horizontally rearward, and forms a part of the top oven-plate. Secured to or upon each wall A, C, and C is a plate, D, which has a plane interior face, and, preferably, is ribbed or grooved exteriorly, and extends between the ends of

said plate, and from a point just above its offset, downward about one-half the distance to the point at which the grate E is to be placed.

The plates D, upon the vertical walls of the fuel-chamber, are secured in place by means of screws or bolts F, which pass inward through said walls; but as such attachment would be impracticable for the rear plate D, the upper edge of said rear plate is extended upward and rearward—upward and then rearward—as seen in Fig. 5, its last-named extension *d* being supported upon the horizontal portion of the plate B, to which it is secured by means of screws or bolts F, that pass vertically through said parts.

The ends of the front and rear plates D are provided with lugs *d'* which project forward beneath the ends of the end plates B, and prevent the former from being removed while the latter are in place, the said locking-lugs being unable to pass the flanges upon the latter. Extending around the outer edge of each plate D is a V-shaped groove, *d''*, which, upon the vertical plates, is formed partly within the offset of the contiguous walls, and in part by the edge of said plates, while in case of the rear plate D said groove is formed wholly within the rearward extension of the same. The inner face and upper edge of each plate D is covered by means of a lining-plate, G, which, at its upper edge, extends outward and upward, and upon the lower side of such extension is provided with a V-shaped lug, *g*, that corresponds to and fills the groove *d''*, and serves as a means for suspending said lining to or upon its plate D.

The lining G, at each end of the fire-box, is constructed in one piece, and is held in vertical position by means of a screw or bolt, H, which passes through the plate C, and into or through the lug *g'* that extends upward from the upper edge of said lining, while the lower end of the latter is held firmly against the plate D, by causing its ends to extend forward and rearward behind the ends of the contiguous ends of the front and rear linings.

The linings G, at the front and rear sides of the fire-box, are constructed in sections, and each section is provided with a lug, *g'*, which extends outward and upward beneath the lower edge of the contiguous plate D, and

effectually locks said lining in place and prevents its removal.

In order that the front and rear lining-plates may be placed in or removed from position, a notch,  $d'''$ , which corresponds to and will permit to pass one of the hooked lugs  $g''$ , is provided at one end of each of the corresponding plates D, but occupies such position as to prevent a lining-section from being moved sufficiently near to the end of said plate to cause its lug to coincide with said notch, except when the end lining is removed. As thus constructed, the front and rear lining-sections may be successively placed in or removed from position upon their supporting-frame D after the end lining has been removed; but when the latter has been replaced, said sections are effectually locked in place.

The manipulation necessary for the removal or replacement of the parts of the fire-box is performed without other change of the stove than the removal of the pot-hole covers and center-piece.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In a cooking-stove, a detachable fire-pot lining, provided at its upper end with an outward and downward projecting lip, and at or

near its lower end with an outward and an upward projecting lug, by means of which said lining is secured to or upon its supporting-frame, substantially as and for the purpose specified.

2. In a cooking-stove, a frame for supporting the lining of the fire-box, constructed in interlocking pendent sections, and detachable through the boiler-hole without interference with or derangement of other portions of the stove, substantially as and for the purpose shown.

3. As an improvement in fire-boxes for cooking-stoves, the detachable frame-plates D, having at their upper edges the V-shaped grooves  $d''$ , and at their lower edges the notches  $d'''$ , in combination with the lining-plates G, each provided at its upper edge with an overhanging lip,  $g$ , and near its lower edge with an outward and upward extending lug,  $g''$ , substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of October, 1877.

JAS. A. LAWSON.

Witnesses:

HERBERT A. VIETS,  
ROBERT S. WOOD.