

R. S. OLIVER.  
Cooking-Stove.

No. 209,355.

Patented Oct. 29, 1878.

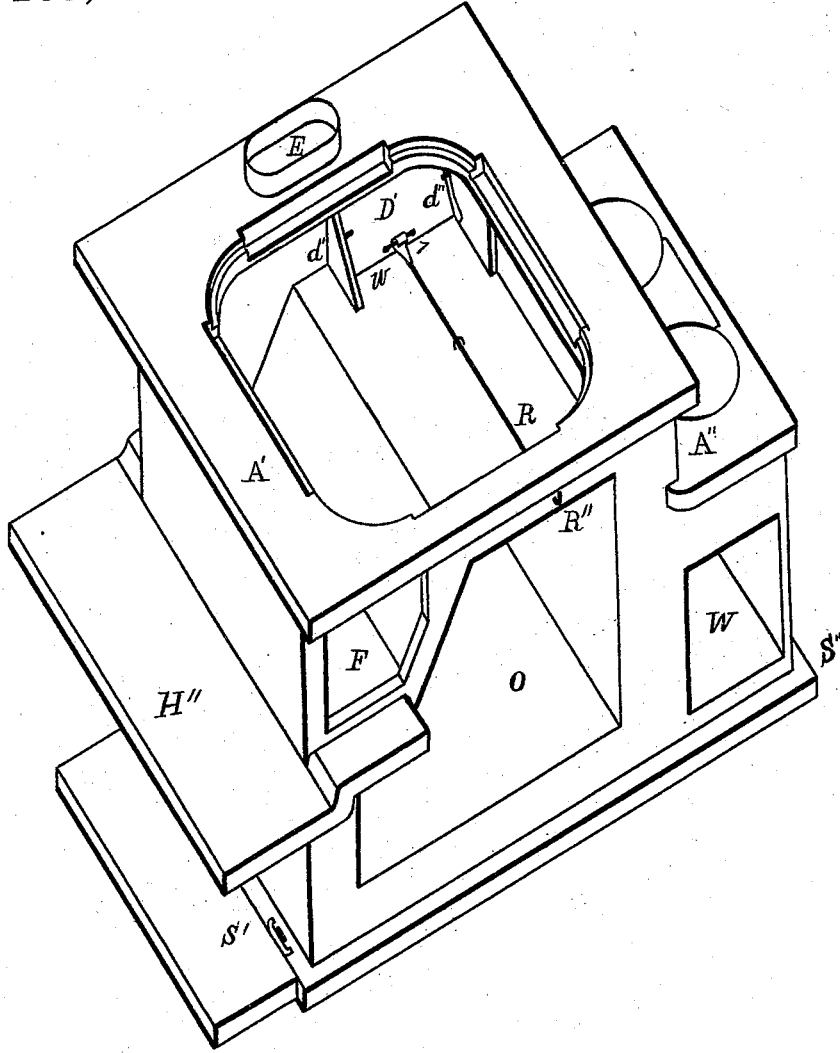


Fig. 1.

Witnesses:

*Wm. K. King*  
*J. M. Laudon*

Inventor:

*Robert S. Oliver*  
 by *W. E. Hagan*  
 his attorney

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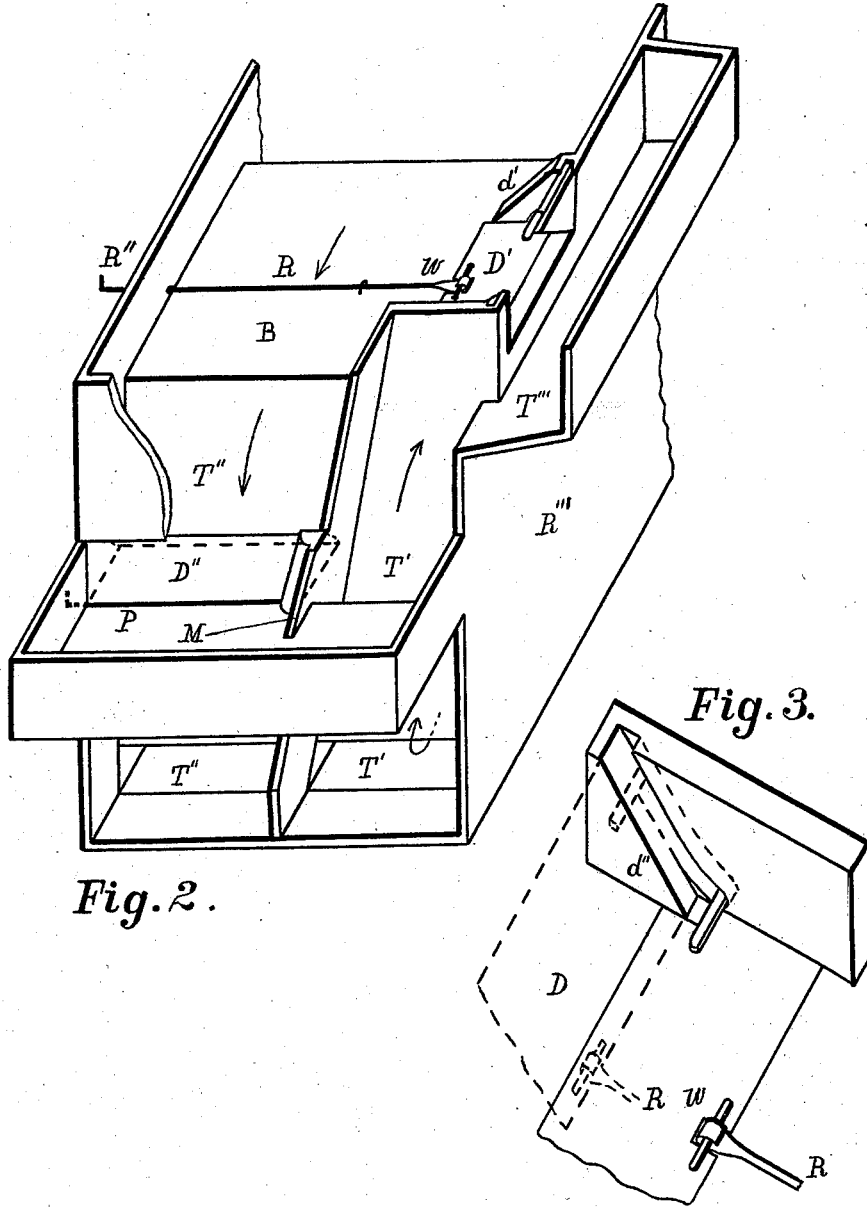


Fig. 2.

Fig. 3.

Witnesses:

*Wm Kellogg*  
*Jm Laudon*

Inventor:

*Robert S. Oliver*  
by *W. E. Hagan*  
his attorney

# UNITED STATES PATENT OFFICE.

ROBERT S. OLIVER, OF ALBANY, NEW YORK, ASSIGNOR TO RATHBONE,  
SARD & CO., OF SAME PLACE.

## IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **209,355**, dated October 29, 1878; application filed  
July 18, 1878.

*To all whom it may concern:*

Be it known that I, ROBERT S. OLIVER, of the city and county of Albany, and State of New York, have invented an Improvement in Cooking-Stoves, of which the following is a specification:

My invention relates to improvements in two-flue cooking-stoves; and consists in combining with an oven having but one side door, and heated by the side and bottom of the fire-chamber and the two usual base and rear vertical flues, an auxiliary boiler-hole top at the rear and below the usual top, with a flue beneath the latter connecting with an exit-flue formed at the side beneath the usual top and upon the side opposite to the oven-door.

In the accompanying drawing there are five figures illustrating my invention, in all of which like letters are used to designate the same parts.

Figure 1 illustrates the stove, in perspective, with the top center-piece removed, showing the top flue over the oven and the damper connecting it with the exit-flue at the side. Fig. 2 illustrates, in perspective, the stove with the upper boiler-hole top, the vertical end plate and lower boiler-hole top removed to show the position of the flues and dampers, and in which illustration arrows show the direction of the flue-currents. Fig. 3 illustrates, in perspective, the manner in which the direct draft-damper arranged in the top oven-flue is constructed to operate.

The various parts of the stove are by letter reference designated as follows: A' denotes the upper boiler-hole top; A'', the lower top; F, the fire-chamber, with its side and bottom within the oven O; W designates the warming-closet, formed beneath the lower top; D', the slide-damper connecting the top oven-flue with the exit; d' d'', the slides in which the damper moves, and R the rod by which it is actuated. E denotes the exit-pipe. B denotes the top oven-flue, connecting the fire-chamber with the descending vertical flue T''; and T', the ascending vertical flue, connecting the oven bottom flue with the top exit-flue T'''. D'' designates a swing-damper, arranged in the rear vertical descending flue, to

throw the heat-currents under the lower boiler-hole top, and thence to the exit, when the oven is not used. The letter R''' designates the side wall of the stove; and P, a flue formed beneath the lower top, divided in part by the plate M, so that the heated currents in passing around the plate toward the exit shall better heat the lower top.

The object of my invention is to add to an ordinary two-flue stove the lower boiler-hole top, and to combine with it, to heat the same, for convenience and capacity, the usual rear exit-flue of a range by placing it at the side of the stove, thus combining the advantages of the better capacity to heat and contain which the stove-oven has with the convenience which an auxiliary range-top and the range location of the exit-pipe has.

The damper D' when open rests flat upon the oven-top, and the rod R is hinged to the damper at w, and passes over the oven-top and through the side wall of the stove, where the handle R'' is attached. In the side of the flue-wall there are constructed the inclined damper-grooves d' and d'', into and through which the damper rises to close when the rod is pushed in, and through which it slides down when the rod is drawn out to open.

The damper D thus described and illustrated is not my invention, considered by itself, and only so in application as a part of the combination in which I employ it. The object of this damper being to open and close the passage connecting the top oven-flue with the exit, an ordinary drop swing-damper, as shown at D'', may be used in its stead, if desired, and without changing the operation of the flues.

I am well aware that the range-flues which I employ are not new, and that the oven as constructed, or the lower auxiliary boiler-hole top, considered by themselves and separately, are not new, and that my invention must be limited to the manner in which I combine and arrange the specific factors that I employ.

I am also aware that a range-oven into which the fire-chamber was not intruded upon its sides and bottom, and a reservoir located in a chamber at the side of the range, have

been heated by the same base and top flues as those employed by me; but the range did not have a lower boiler-hole top, and the top of the reservoir-chamber was in a line with the usual boiler-hole top of the range.

I am also aware that a lower top or reservoir chamber has been formed at the rear of a cooking-stove, with the exit-flue between the oven and reservoir, and not at the top and upon the side opposite the oven-door, and in which the exit-flue was not connected horizontally at the top and rear with the vertical flue.

I am also aware that a cooking-stove had been made prior to my invention having a lower boiler-hole top, but with the exit-flue at the rear of the lower top, and in part within the reservoir, and not opposite the oven-door, connected at the top with the vertical flue by means of a horizontal flue above and back of the oven.

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

1. In combination within a cooking-stove

to heat the stove-oven O, the boiler-hole top A', and the lower auxiliary boiler-hole top, A'', the fire-chamber F, arranged upon one of its sides and at its bottom within the oven-inclosure, and the connected stove and range flues B, T'', T', and T''', with the exit-flue located at the top and rear, opposite the oven-door, as shown and described.

2. In combination, and constructed within a cooking-stove to heat the oven O, boiler-hole top A' and lower auxiliary boiler-hole top, A'', the fire-chamber F, its side and bottom inclosure forming a portion of the oven-wall and intruded into its area, with the connected stove and range flues B T' T'' T''', the dampers D' and D'', and with the exit-pipe located at the rear and top, and opposite the oven-door of the stove, as shown and described.

Signed at Albany this 22d day of April, 1878.

ROBERT S. OLIVER.

Witnesses:

CALEB PALMER,  
JOSEPH DORION.