

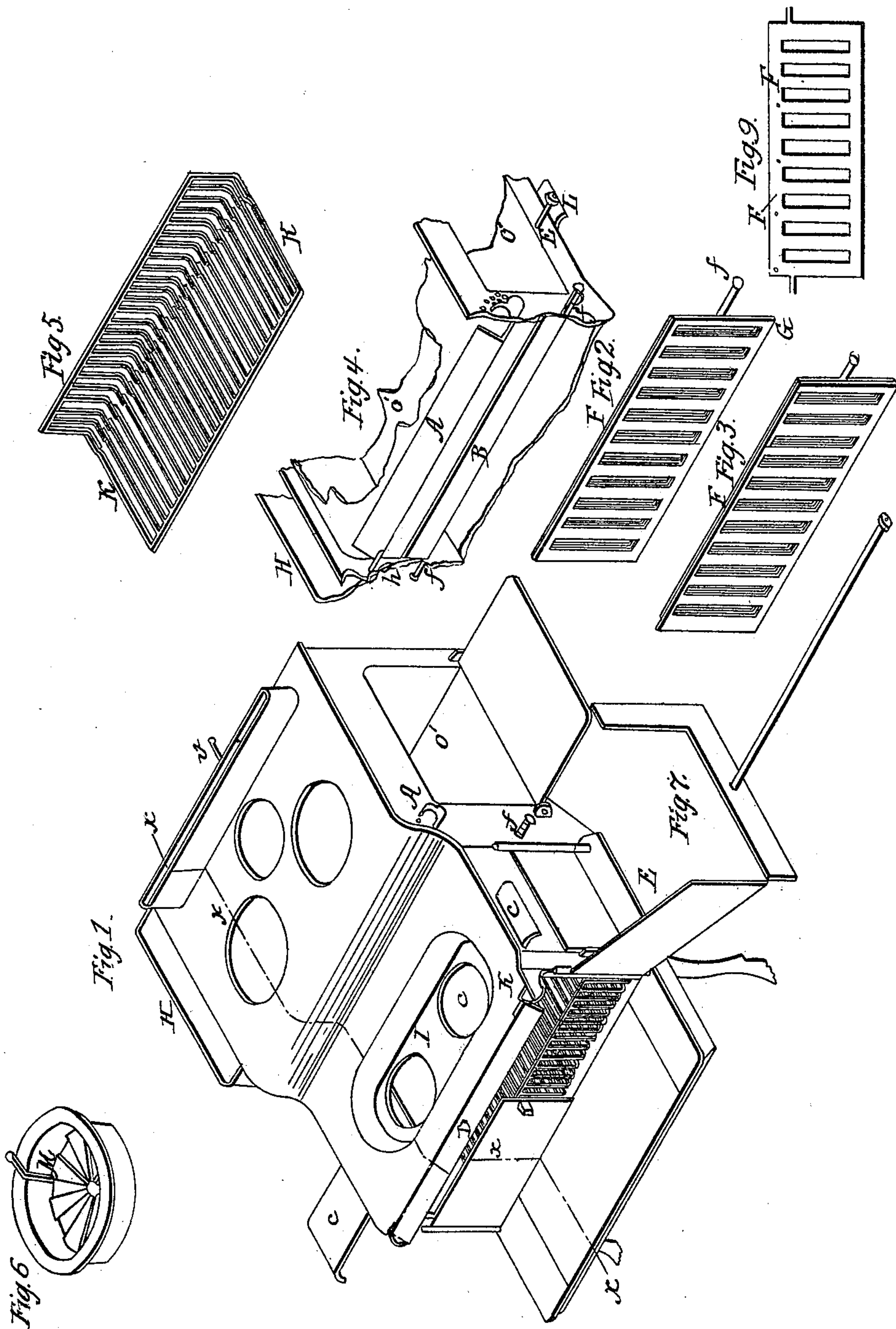
C. M. NELSON.

2 Sheets—Sheet 1.

Cooking Stove.

No. 7,144.

Patented March 5, 1850.



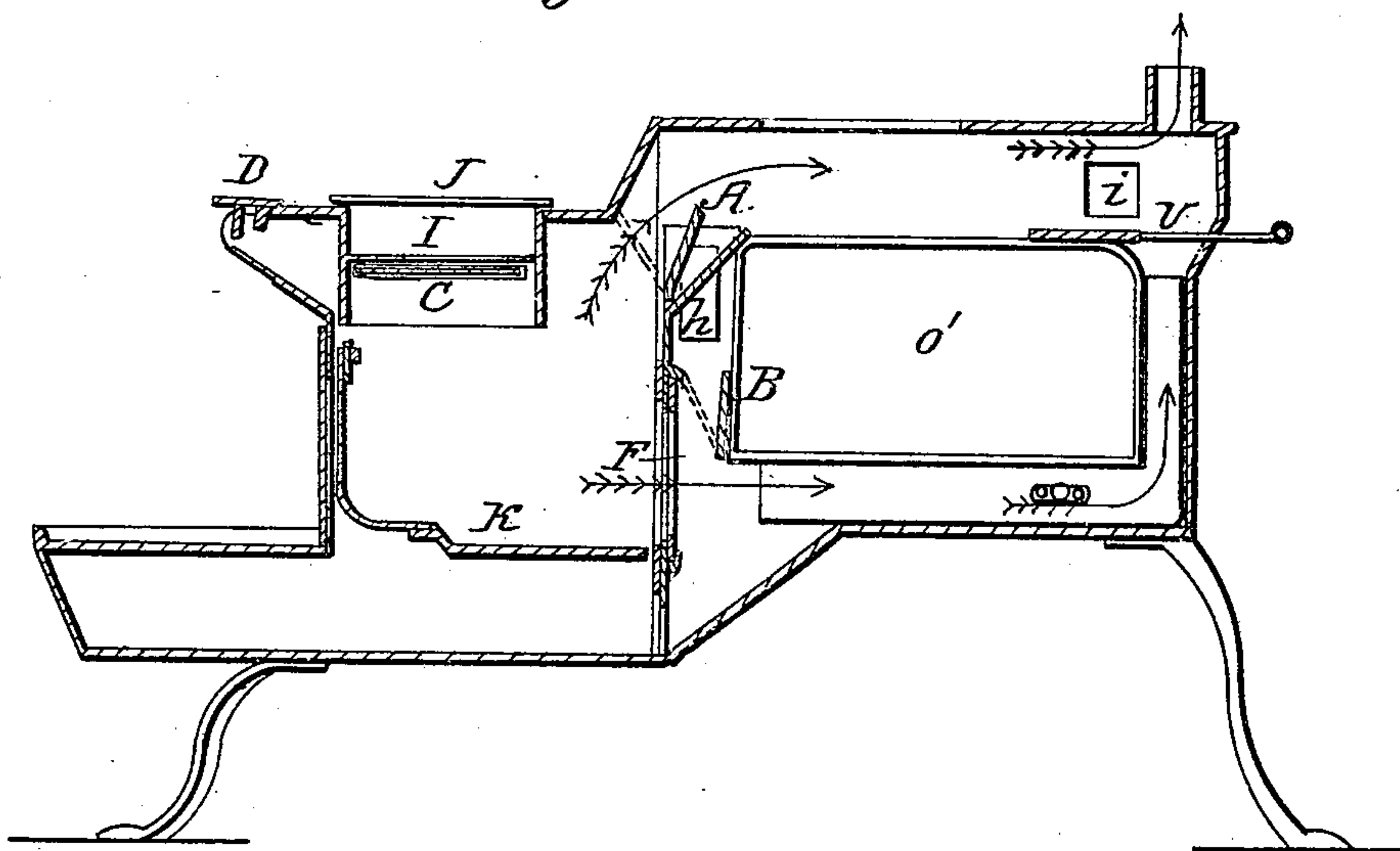
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Fig. 8.



UNITED STATES PATENT OFFICE.

CHAS. M. NELSON, OF CINCINNATI, OHIO.

COOKING-STOVE.

Application of Letters patent No. 7,144, dated March 5, 1850.

To all whom it may concern:

Be it known that I, CHARLES MURRY NELSON, of Cincinnati, Hamilton county, and State of Ohio, have invented a new and useful Improvement in Coal Cooking-Stoves; and I do hereby declare that the following is a full and exact description, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1, is a perspective view of the stove. Fig. 2, is a perspective view of the stationary back plate of the fire chamber made with oblong openings or passages for the draft, and the sliding register plate also cast with openings or passages for the draft—said openings being closed. Fig. 3, is a perspective view of the same parts—the openings being open. Fig. 4 is a perspective view of a portion of the interior of the stove showing the graduating valve A,—hinged valve B,—side flue H and oven O'. Fig. 5, is a perspective view of the grate detached from the stove. Fig. 6, is a perspective view of the ventilating bottom for keeping the pots free from soot. Fig. 7, is a view of the right angled scraper for scraping the back and bottom flue. Fig. 8, is a longitudinal section on the dotted line *x* of Fig. 1, the valve A and register F, being in positions to divide the draft—causing one half to pass over the oven and the other half under it. Fig. 9, the register plate detached from the stove. In Fig. 1, the turning plate D, is in a position to act as a hood: in Fig. 8, it is in a position for replenishing the grate with coal. The arrows show the direction of the draft when the register and valves are in the position represented in Fig. 8.

Similar letters in the several figures refer to corresponding parts.

The nature of my invention consists in combining with the sliding register at the back of the fire chamber a pivoted valve or damper A arranged above the said register, which will admit all the heat, or part, (at pleasure) to pass over the oven, or under it according to the position of said register and valve.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my stove, generally, in any of the known forms, as far as external and internal arrangements will admit, but in order

to give greater comfort with greater economy, I have found that the employment of a pivoted damper or valve A in combination with the sliding register F in the manner described prevents in a great measure the burning out of the back of the fire chamber by shutting the register to close the openings in the back when the fire is being kindled causing the smoke to pass off over the oven and directly up the pipe. I arrange the graduated valve, or damper A, which shuts off the passage over the oven top directly over the register and make its axle with a handle and hook or point that is to be inserted into one of the holes of a segmental row made in the side plate of the stove in which the handle is placed. When the fire is in full blast and bright: this valve is placed in a position to regulate the draft as required. Behind the register I have constructed a valve B, which, when opened, as seen in Fig. 8, admits the heat to a boiler placed in the space H, Figs. 1 and 4, which boiler will be so arranged that hot water may be drawn from it at any time by a stop cock. A serious defect exists in common stoves which causes them to burn the cakes &c., placed upon the griddles before they are thoroughly baked, and to remedy this evil I have constructed double plates J, C, the upper plates or griddles J, Fig. 8, being made in the usual way, and the under plates C next the fire, being constructed as slide dampers which are shown one open and one closed at C, C, on Fig. 1. The movable or middle plate I is constructed in the form of a movable pan the bottom of which having holes to let the flame pass upward when the slide dampers C, C, are drawn out and which can be removed altogether when it is necessary to insert a large boiler.

In front of the stove over the doors, I have arranged a plate D to be thrown over upon top of the stove into a horizontal position as shown in Fig. 8, when the fire requires to be fed with fuel which prevents the smoke and dust from being ejected into the apartment, during the operation of replenishing the grate and the fire is not checked. In addition to the above I have constructed a movable bottom to the grate as shown at K in Fig. 5, which can be easily taken out when burned thin and replaced by a new one at a cost of a few cents.

The sliding pot bottom M, Fig. 6, is for

the purpose of preventing an accumulation of soot on the bottom of the pots when the fire is kindling.

5 The right angled or L shaped scraper is placed in the bottom and back flues and is designed for cleaning these flues. The handle is seen at E in Fig. 4. The slide that closes the opening in the bottom plate through which the soot is discharged is seen
10 at L Fig. 4.

The horizontal valve V Fig. 1, for closing the back flue, when required is arranged upon the top plate of the oven near the smoke pipe in the usual manner and is provided with a handle by which it is moved
15 horizontally.

When the valve A is turned to the position represented by dotted lines and the valve V drawn across the back flue and the
20 register F, and valve B, are open the heat will pass through the mouth *h*, into the side flue H and out at the outlet *i* into the smoke pipe. When the register F is closed and the valve A is open the draft will be through
25 the top flue. When the valve A is closed the register and valve V, are open the draft

will be through the bottom and back flue. When the register and valve A are both partly open (as seen in Fig. 8) the draft will be both over and under the oven. By
30 changing the angle of inclination of the valve A with a vertical line the draft through the top flue may be increased or diminished and regulated to the utmost exactness. The same result may be accomplished
35 through the bottom flue by moving the register to the right or to the left by degrees.

Having thus fully described my improved coal cooking stove, what I claim as my invention and desire to secure by Letters Patent is—
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The arrangement of the valve or damper A, above the back plate of the fire chamber, in combination with the register F, for regulating the draft, as herein fully set forth.
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In testimony whereof I have hereunto signed my name before two subscribing witnesses.

CHARLES MURRY NELSON.

Witnesses:

LUND WASHINGTON, Sr.,
WM. P. ELLIOT.