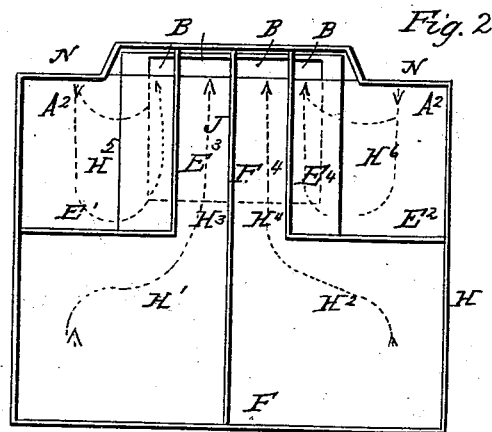
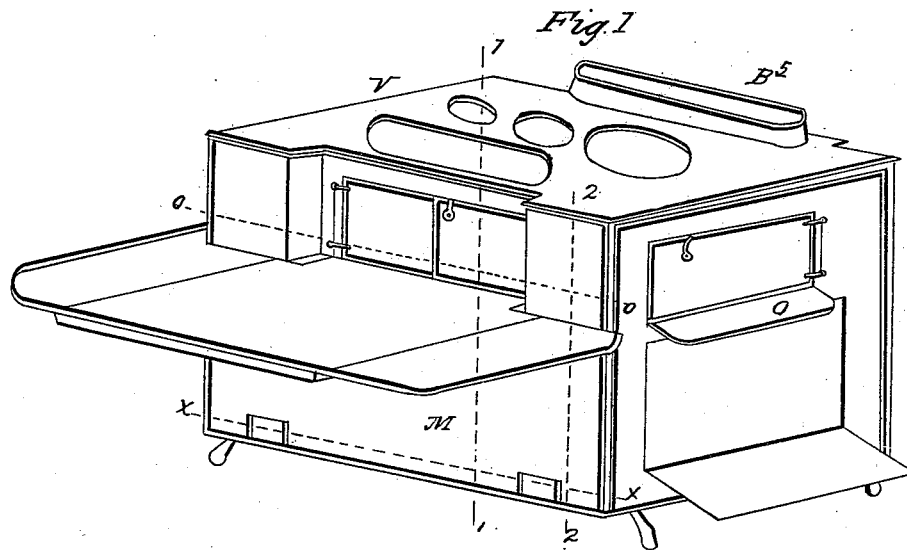


J. GREER.
Cooking Stove.

3 Sheets—Sheet 1.

No. 3,084.

Patented May 12, 1843.



Witnesses
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Edw. A. King

Inventor
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Fig. 3

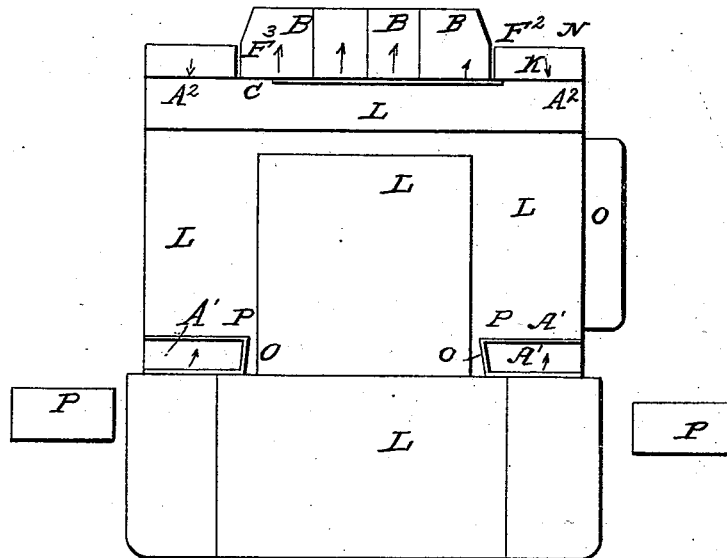


Fig. 6.

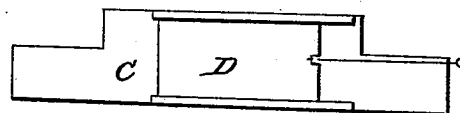
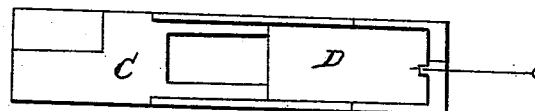


Fig. 7



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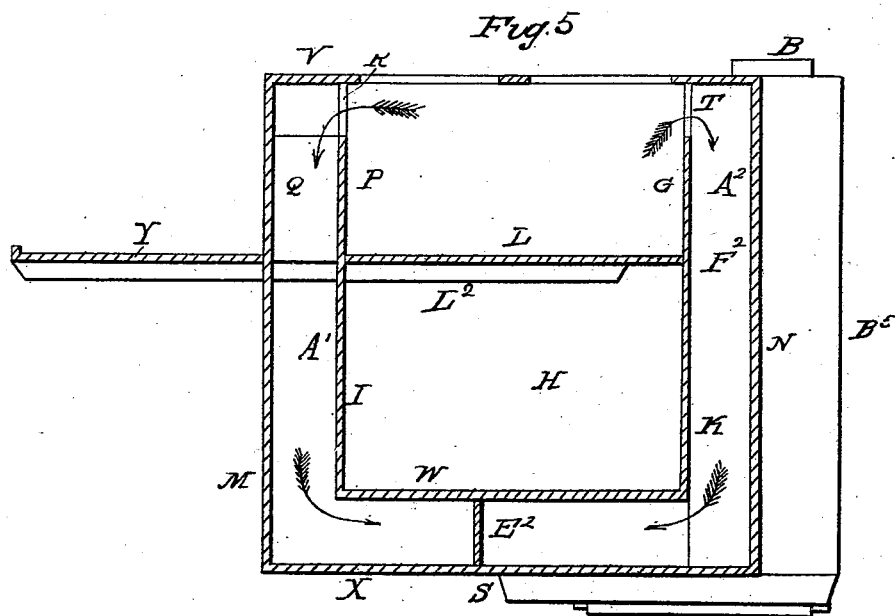
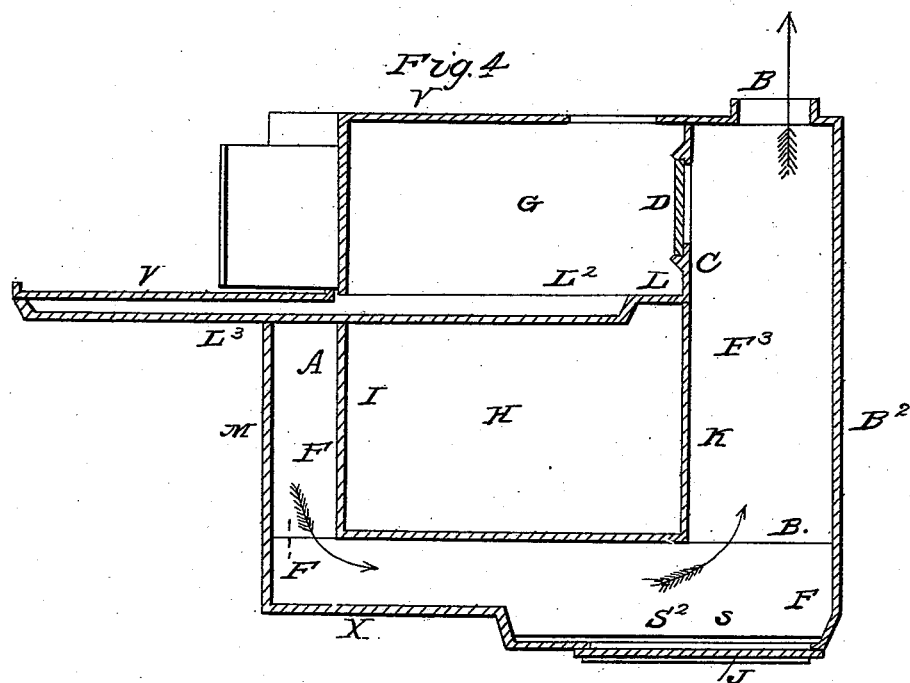
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3 Sheets—Sheet 3.

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Patented May 12, 1843.



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UNITED STATES PATENT OFFICE.

JAMES GREER, OF DAYTON, OHIO.

COOKING-STOVE.

Specification of Letters Patent No. 3,084, dated May 12, 1843.

To all whom it may concern:

Be it known that I, JAMES GREER, of Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in the Mode of Applying Heat to Cooking Stoves, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a perspective view. Fig. 2 is a horizontal section at the dotted line $x x$ of Fig. 1. Fig. 3 is a horizontal section at the dotted line $o o$ of Fig. 1. Fig. 4 is a vertical longitudinal section at the dotted line 1 1 of Fig. 1. Fig. 5 is a vertical longitudinal section at the dotted line 2 2 of Fig. 1. Fig. 6 section of the valve closed. Fig. 7 section of the valve open.

This cooking stove is of a rectangular form with a large oven H below the fire chamber G extending through from one side to the other, its width being less than that of the stove so as to form flues between its front and back sides and those of the stove, and its height or depth being about half that of the entire stove and its bottom plate W being arranged at a sufficient distance from the bottom plate X of the stove to form the flue under the same, and its top being the horizontal plate L that divides it from the fire chamber G and which forms the front hearth L^3 of the same when it is extended in front of the stove, the middle of which plate when the fire is placed being sunken or depressed forming a concave ash pit L^2 and the hearth portion of said plate being likewise sunken at L^3 and covered with a movable plate Y, Fig. 4. The top plate V of the stove is perforated for boilers in the usual manner. The back is extended or projected as represented at B^2 to form the main ascending flue. The bottom plate X of the stove below the aforesaid back flue and rear portion of the oven is recessed at S and perforated for the reception and discharge of the soot and dirt descending from the back flue, the opening in the said recessed portion of the stove being closed by a horizontal slide or valve J. The fire chamber is separated from the back flue by a vertical transverse division plate C placed over the back plate of the oven perforated with an opening for the passage of the smoke directly to the back flue without circulating around the oven when said opening is not closed by the valve D.

The flues for applying the heat equally and regularly over the front, back and bottom of the oven are constructed in the following manner: A vertical plate F extends from the front to the rear of the stove below the oven and in the center thereof dividing the bottom flue under the stove into two equal parts or flues. This division plate is extended vertically through the front flue A to the hearth and into the back flue B as high as the bottom of the oven. The aforesaid two bottom flues thus formed by said central plate are again subdivided into other flues by vertical transverse plates E^2 placed between the bottom of the stove and oven in the middle thereof and extended from the side plates of the stove toward the aforesaid center plate F about three-fourths the width of the space where they are turned at right angles and extended back to the rear plate of the stove into the back flue B which thus forms two large square flues $H^1 H^2$ under the front portion of the oven and two small central flues $H^3 H^4$ leading from them into the back flue and two small square flues $H^5 H^6$ under the rear part of the oven also leading into the back flue, the last mentioned flues communicating with two vertical corner or diving flues $A^2 A^2$ that conduct the draft from the rear part of the fire chamber G down through the said corner diving flues A^2 to the small square flues $H^5 H^6$ under the rear portion of the oven and thence into the back flue B or ascending flue. The flues for conveying the heat from the fire chamber to the first described flues $H^1 H^2$ under the front of the oven are formed in the two front corners of the stove by means of two vertical plates P, Q, placed upon the hearth plate and rising about two-thirds the height of the fire chamber, over the upper edges of which plates P, Q, the draft passes into the front corner flues $A^1 A^1$. The rear corner flues A^2 for conveying the draft from the fire chamber down at the back of the oven and into the rear square flues $H^5 H^6$ under the oven and thence into the vertical back ascending flue B are formed by vertical plates arranged between the back plate of the oven and fire chamber and the back plate of the stove transversely across the back flue. The entrances into said rear corner or diving flues from the fire chamber are made by perforating with oblong openings the rear plate C of the fire chamber.

When the sliding valve D is closed as seen

in Fig. 4 the draft will pass down the four corner flues $A^1 A^2$ to the square flues under the oven and thence to the central flues and into the back or ascending flue as seen in Fig. 5, at the same time circulating through the front flue. When said valve is drawn back and the central flue open, the draft will be direct into the back flue B as before stated.

0 The bottom plate of the fire chamber is extended beyond the side of the stove a sufficient distance forming a small addition at hearth O to one of the side doors of the fire chamber.

5 Apertures, closed by slides, are made in

the front and back plates contiguous to the vertical corner flues for the purpose of removing the soot from the horizontal flues.

What I claim as my invention and which I desire to secure by Letters Patent is— 20

The combination of flues under the oven with those at the four corners of the stove and with the front and back flues, as described, constructed in the manner and for the purpose set forth.

JAMES GREER.

Witnesses:

EBENEZER FOWLER,
EBENEZER HENDERSON.