

C. O. GREENE.  
Cooking Stove.

No. 87,165.

Patented Feb. 23, 1869.

Fig. 1.

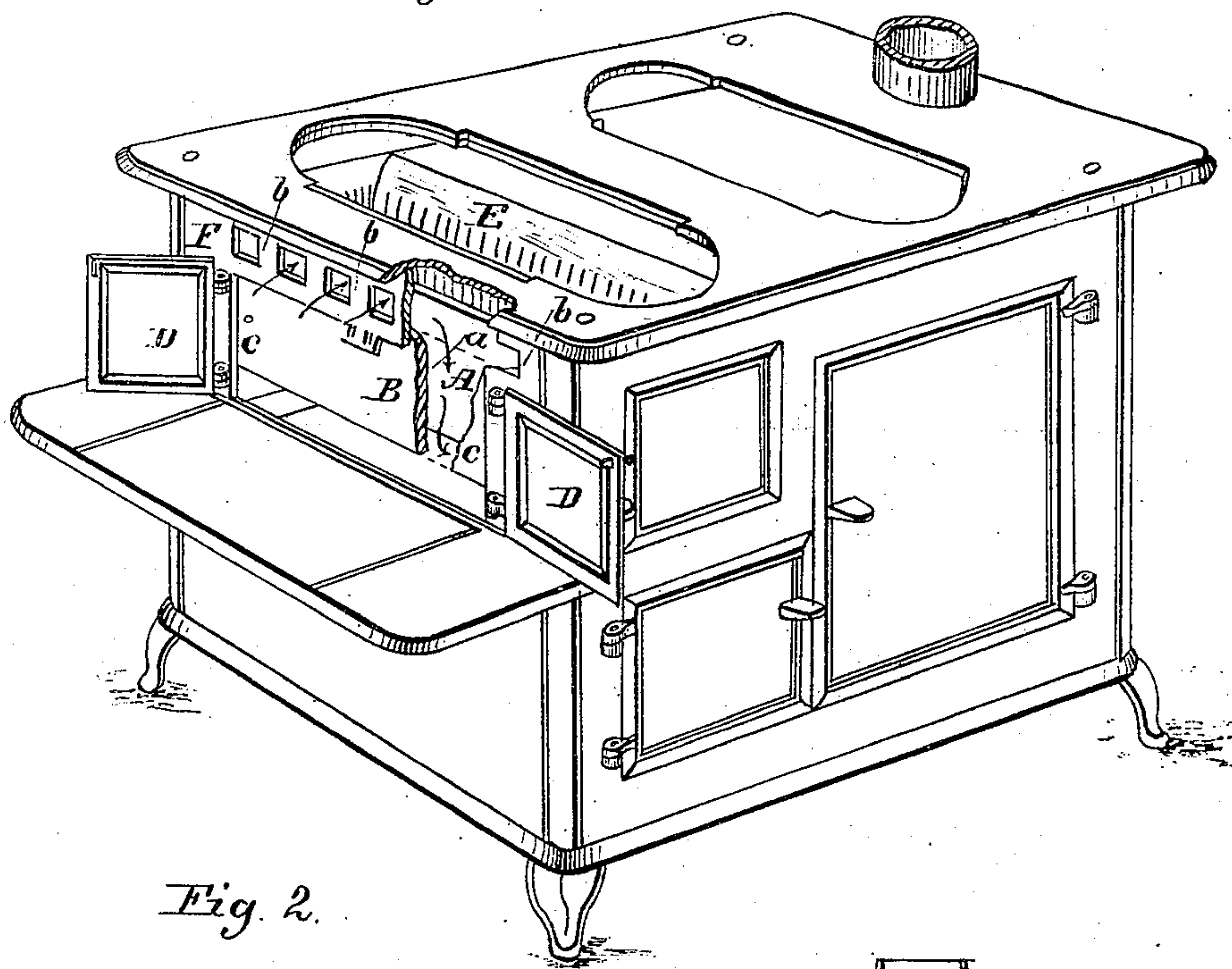
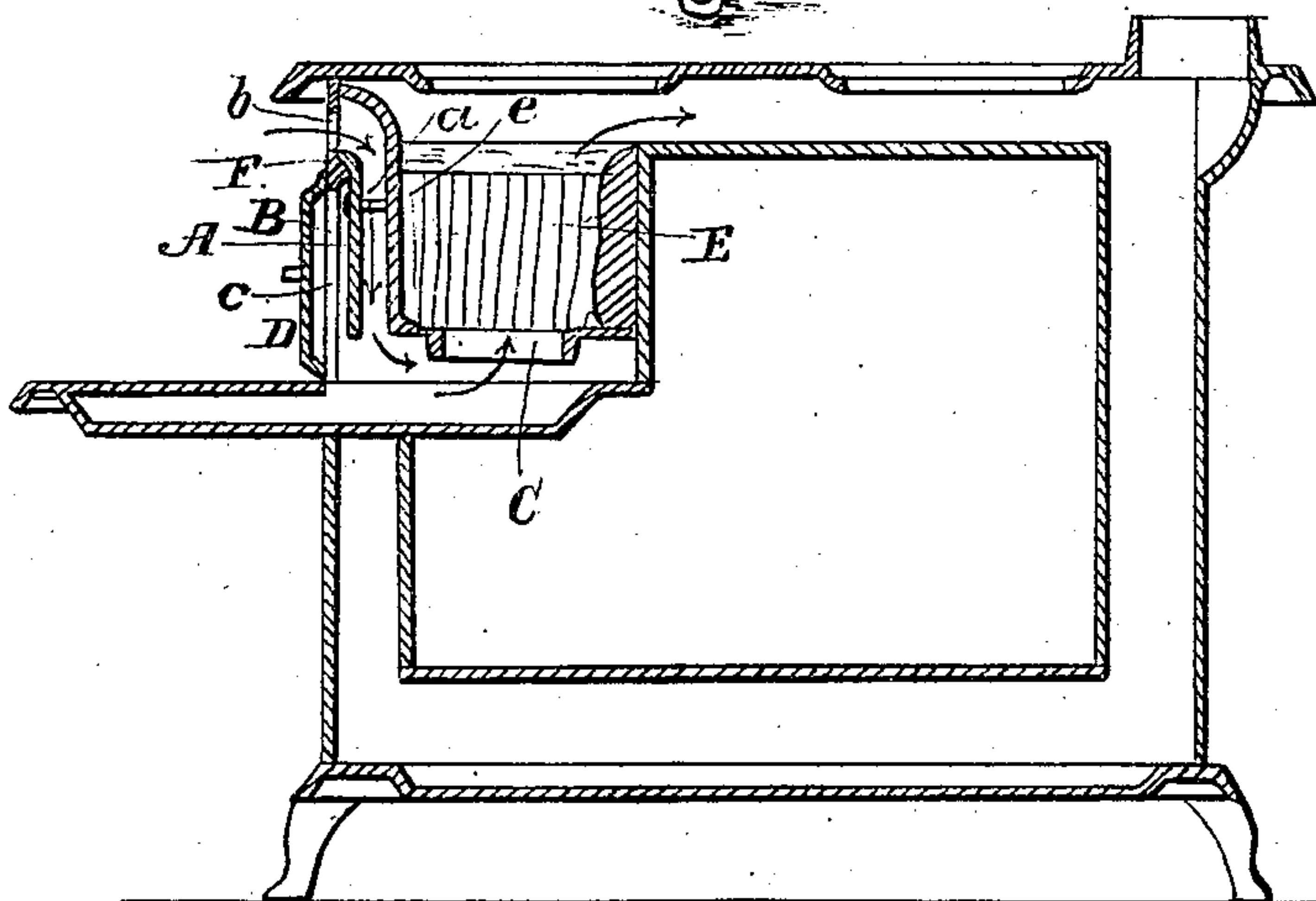


Fig. 2.



Witnesses:

J. J. Savage  
Jas. W. Cusack

Inventor:

Chauncey O. Greene



# United States Patent Office.

CHAUNCEY O. GREENE, OF TROY, NEW YORK.

Letters Patent No. 87,165, dated February 23, 1869; antedated February 2, 1869.

## IMPROVEMENT IN COOKING-STOVE

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

To all whom it may concern:

Be it known that I, CHAUNCEY O. GREENE, of the city of Troy, in the county of Rensselaer, and State of New York, have invented a certain new and useful Improvement in Cooking-Stoves; and I do hereby declare that the following is a full and exact description of the same, reference being had to the annexed drawings, and letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a perspective view of a cooking-stove embodying my improvement, a part of the top and front plates being removed, so as to show my invention more distinctly; and

Figure 2 is a vertical section of fig. 1.

The same letters refer to like parts in each of said figures.

In operating stove-furnaces, a hot-air draught supplied to the fire, is found to promote and perfect combustion of the fuel used therein, and devices for heating the air-draught for that purpose are now used.

The object of my invention is to improve and thereby provide a more effective device for heating a descending air-draught hotter, in its passage to the fire-box, than heretofore obtained, when occupying and passing down the entire space made between the front fire-plate of the fire-box and the front plate or doors of the stove; and

My invention consists in a division-plate, arranged in position between the front plate, or doors of the stove, and the front fire-plate of the fire-box, and in combination therewith, and the air-draught opening, or apertures, in the front plate, in manner so as to divide the space heretofore made between the front fire-plate and front plate, or doors, and to form between the front fire-plate of the fire-box and the aforesaid division-plate, a permanent passage-way for a descending air-draught, that is distinct from the front plate, or doors; and also form between said division-plate and front plate, or doors, an air-space, or chamber, in manner substantially as hereinafter fully described and shown, and wherewith, from the greater concentration of heat in said passage-way, the descending air-draught is heated hotter, on its way to the fire, than heretofore.

The construction of my improvement is as follows:

The cooking-stove, with its fire-box E and fire-grate G, is constructed in the usual manner, except the front fire-plate A, which is made with end sides, and has combined with it a division-plate, B.

This plate may extend the whole width of the stove, but usually is made as long as the fire-plate A, and narrower, so as to leave an entrance-opening for an

air-draught between its upper edge and fire-plate A, in manner as shown, when it is arranged in the space made between the front plate and doors F and fire-plate A, and in combination with the air-opening, or apertures, b, in the front plate F, and with the said fire-plate A, and secured thereto by bolts e, or by other suitable means, so as to permanently divide the space between the front plate and doors F D, and fire-plate A, and separate therefrom, and thus form a permanent distinct passage, a, between the said division-plate and fire-plate A, and behind and separate from the front plate and doors D, and next the hot-air space c, formed between said division-plate B and front plate F, or doors, when closed for the purpose of a descending hot-air draught, supplying the fire under the grate, in manner substantially as shown in the accompanying drawings.

By thus dividing the space heretofore made between the front plate and doors and front fire-plate of cooking-stoves, into a distinct and permanent air-draught passage-way, next the fire-plate A, and an air-chamber, or space, next the front plate, or doors F D, when closed, a greater concentration or radiation of heat into the air-draught passage-way is obtained, to heat the air-draught hotter, in its passage therethrough, which causes a more equalized supply under the whole grate, so that combustion of fuel thereon is made more perfect and uniform throughout the fire-box.

Having thus fully described my improvement in cooking-stoves,

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

1. The division-plate B, as arranged, in combination with the fire-plate A, air-draught opening, or apertures, b, in the front plate F, and in the position as hereinbefore described, thereby forming a distinct and permanent descending hot-air draught passage-way, a, behind the air-space, or chamber, c, in manner substantially as and for the purpose herein set forth.

2. The combination of the permanent descending hot-air draught passage-way a with the air-space, or chamber, c, in front thereof, which insulates said passage-way from the front plate, or doors, and prevents impingement of cold air thereon, and conduction of heat therefrom to said front plate, or doors, and so causes a greater concentration or degree of heat in said passage-way, in manner substantially as and for the purpose herein set forth.

CHAUNCEY O. GREENE.

Witnesses:

J. J. SAVAGE,  
JAS. W. CUSACK.