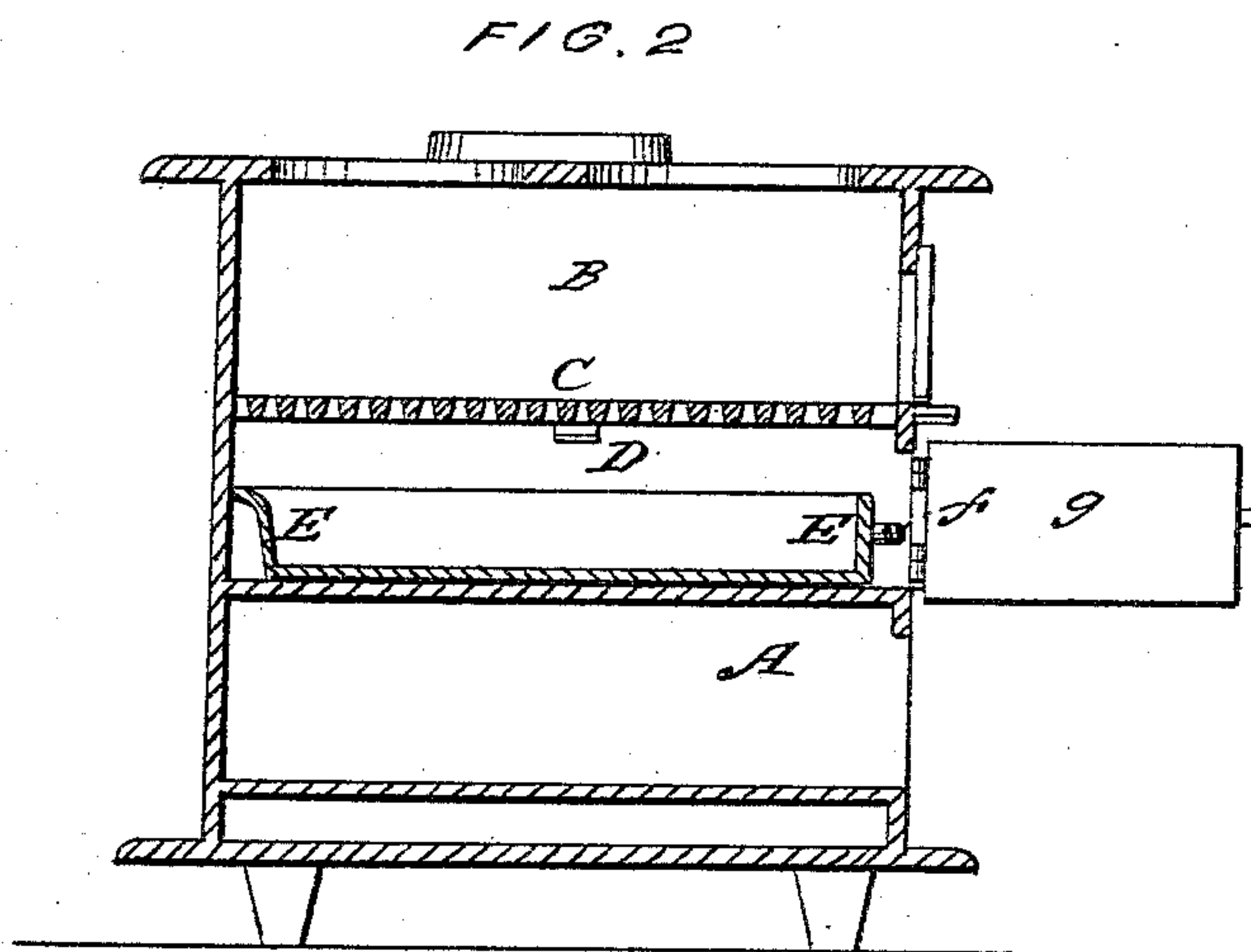
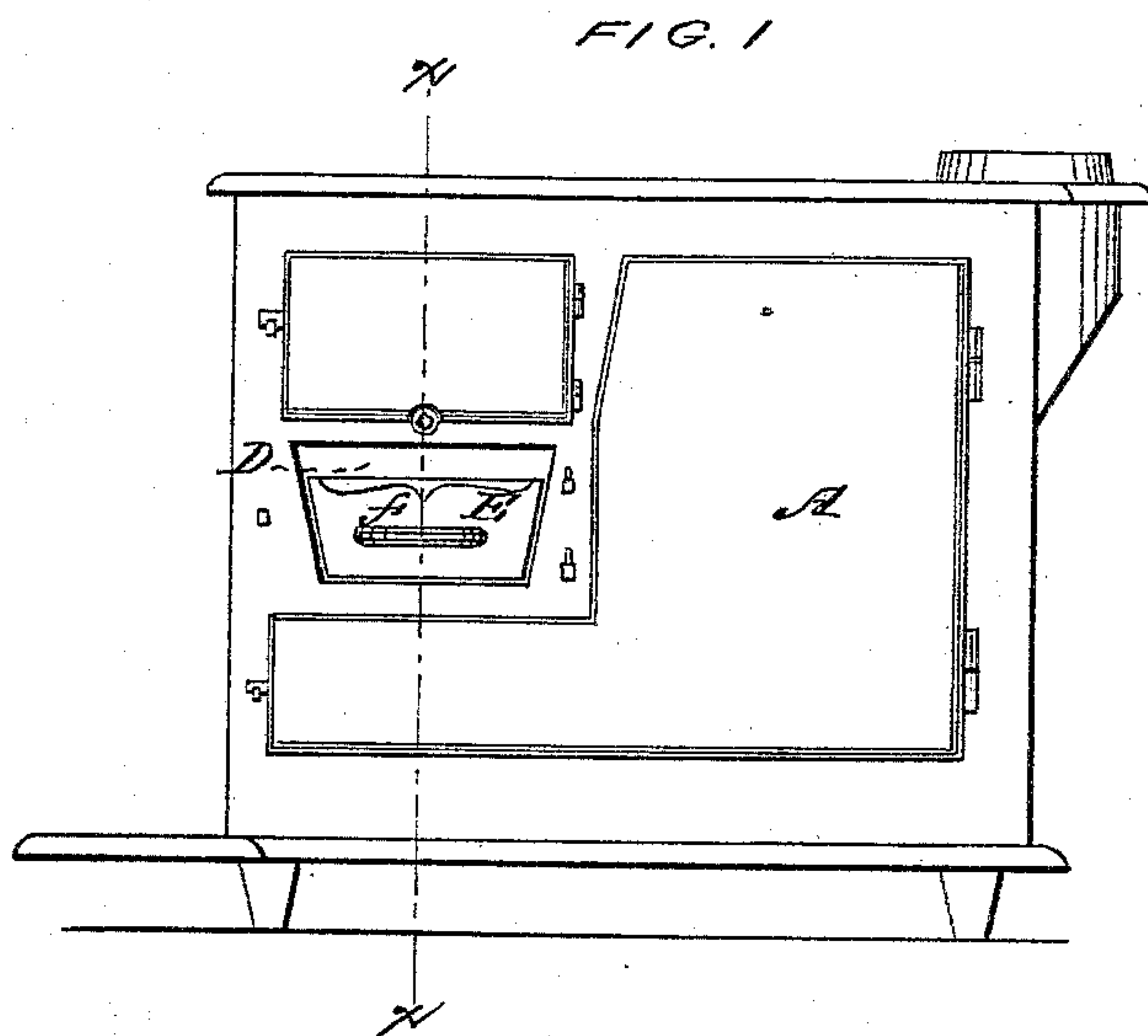


L. W. HARWOOD.

Cooking Stove.

No. 68,072.

Patented Aug. 27, 1867.



WITNESSES:

Charles Spur

John M. Intyre

INVENTOR:

Luther W. Harwood.

By his attorney
N. M. Intire

United States Patent Office.

L. W. HARWOOD, OF TROY, NEW YORK, ASSIGNOR TO FULLER, WARREN
AND COMPANY, OF SAME PLACE.

Letters Patent No. 68,072, dated August 27, 1867.

IMPROVEMENT IN COOKING-STOVES.

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, L. W. HARWOOD, of Troy, of Rensselaer county, in the State of New York, have invented certain new and useful improvements in Cooking-Stoves; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to that kind of stove in which a suspended fire-box is employed; that is to say, a stove in which the oven-spaces extend along under the fire, and up in front of and behind it, as for instance in what is known as the "Stewart Stove." Previous to my invention it has been customary to construct this kind of stove with a closed front and hanging suspended fire-box, and so as to leave beneath the grate a comparatively small space, (shallow,) or ash-pit, into which the ashes from the grate could descend, and from which they had to be removed.

The construction and operation of this kind of stove are well known to the manufacturer and user. It has been found in practice that several very serious objections exist in this mode of construction of a stove, among which may be mentioned the objection of having the space in front of the fire-chamber closed entirely, and my invention has for its object to overcome this objectionable feature in this kind of stove, (having a hanging or suspended fire-box,) and provide a stove which, while it has the suspended fire-box, shall possess the advantage of having an open front to the fire-chamber space, in combination with the other well-known features in this class of stoves. And to these ends my invention consists in the employment, in combination with a dumping or movable grate and oven, extending beneath and up behind the fire-chamber, and suitable ash-pit, whereby the ashes and cinders over the grate-bars may be readily dumped or shaken down into a space below the grate-bars sufficiently large to avoid the liability of frequently clogging up, and from which they can be readily removed, of an open-front fire-space, as will be more fully explained presently.

To enable those skilled in the art to make and use my invention, I will proceed to describe it more fully, referring by letters to the accompanying drawings, in which—

Figure 1 is an elevation or side view, and

Figure 2 a vertical section on line *x x*, fig. 1, of a cooking-stove embodying my invention.

In the different figures the same letters of reference denote the like parts.

A is the oven-space; B the fire-space; C the grate; D the ash-pan or drawer, and F the door to the fire-chamber. The stove represented is about similar to the well-known three-flue stove of this class, with my improvement embraced therein. As I have said before, previous to my invention this class of stoves has been constructed with the space in front of the fire-chamber entirely closed, and in avoiding this objectionable feature I construct my stove with an open-front fire-space, not clearly represented in the drawing, capable of being closed by a door or doors, which though not shown I propose to provide in the manufacture, the object of which is readily perceived. For instance, when it is desirable to have all the heat from the fire-chamber radiated inwardly to the oven, the doors are closed, and when any particular amount of air is needed, the door or doors can be opened to any extent desired, or the door or doors may be entirely opened, allowing all the heat from the front of the fire-chamber to radiate outward, whereby I am enabled to roast as perfectly as before a grated front or an open fire-place.

The grate is so constructed and arranged that it can be oscillated or turned on a longitudinal axis for the purpose of shaking out the ashes, and, when desired, dumping the contents of the fire-space B into the ash-pit D, which latter should be made of sufficient depth to admit of the readily dumping of the fire. I propose to use in the said ash-pit a sliding drawer or ash-pan, E, which may have a suitable handle, *f*, and which can be withdrawn and replaced endwise when the door *g* is open for the purpose of carrying away the ashes and cinders, by means of which the ashes can be removed without causing any dust or dirt in the room occupied by the stove. It will be understood that although I have shown a particular kind of stove, with three flues, etc., my invention can be used equally as well in any other stove in which a suspended fire-box is used, and although I propose to employ the ash-pan E as very desirable, it may be omitted without detracting from the main advantage of my invention, which rests in the idea of having an open front to the fire-chamber space;

the grate movable, and the space beneath the grate sufficient to admit of the necessary motion to dump and readily shake out the ashes and cinders, and allow always a free draught to the fire. Of course various other forms of grate may be hung, to move differently from that shown, without departing from the spirit of my invention.

I am aware that neither the suspended fire-box, ash-pan, ash-pit, nor dumping-grate is new, and do not claim as of my invention any of these specialties, but what I do claim as new, and desire to secure by Letters Patent, is—

The suspended fire-box, having an open front space, and with the oven-space extending beneath and up behind it, in combination with the dumping-grate and ash-pit, the whole arranged to operate as specified for the purpose set forth.

In testimony whereof I have hereunto set my hand and seal this third day of May, 1867.

L. W. HARWOOD. [L. S.]

Witnesses:

WM. H. BISHOP,

A. DE LACY.