A. WHITE.

Parlor Cook-Stove.

No. 165,393. Patented July 6, 1875.

Fig. 1.

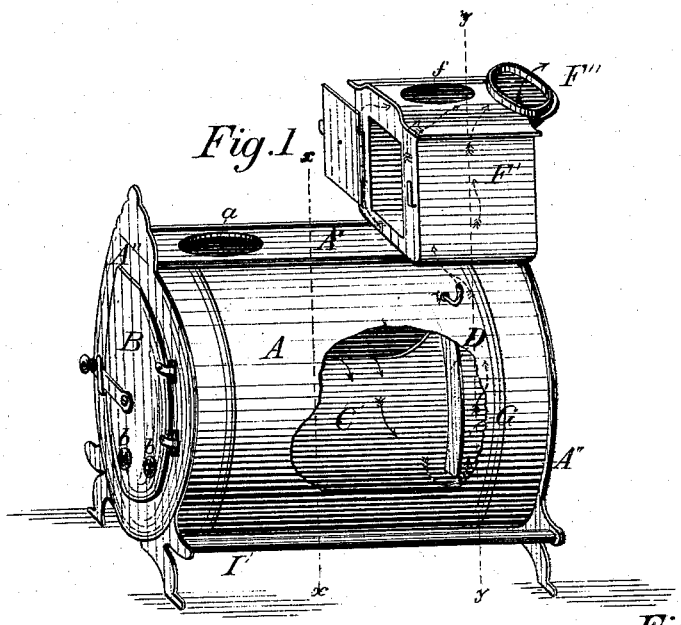


Fig. 2.

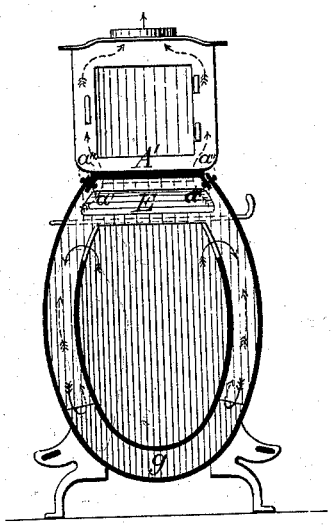


Fig. 5.

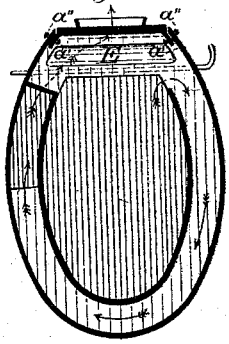


Fig. 3.

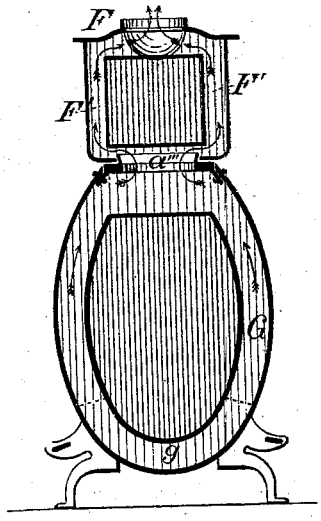
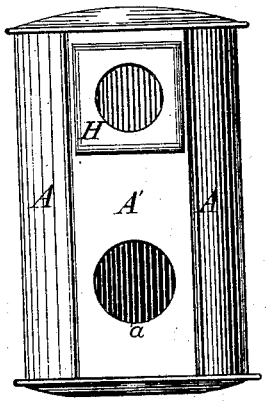


Fig. 4.



Attest:

C. A. Fritz
Benj. Severson

Inventor:

Alexander White
per L. Deane.
Att'y.

UNITED STATES PATENT OFFICE.

ALEXANDER WHITE, OF ROCK ISLAND, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO ALEXANDER H. HAMMOND, OF SAME PLACE.

IMPROVEMENT IN PARLOR COOK-STOVES.

Specification forming part of Letters Patent No. **165,393**, dated July 6, 1875; application filed May 13, 1875.

To all whom it may concern:

Be it known that I, ALEXANDER WHITE, of Rock Island, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Parlor Cook-Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings and to the letters of reference marked thereon which form a part of this specification.

Figure 1 is a perspective view, with a portion of one side broken away to show the flue and indicate the course of the products of combustion in their indirect or circuitous passage to the exit. Fig. 2 is a vertical section on line *x x*. Fig. 3 is a vertical section on line *y y*. Fig. 4 is a top-plan view. Fig. 5 shows a modification of construction, wherein there is an opening only on one side into the passage or chamber between the lining and the casing, said chamber entirely surrounding the structure, and provided with an exit through an opening in the upper rear end.

The design of present invention relates to that class of heating or parlor stoves commonly known as the horizontal cylindrical stove, and the general object and intentions thereof are to produce a parlor cook-stove—that is, a combined cooking and heating stove, of superior efficiency, as a useful and economical device, and of very shapely and beautiful proportions; and to this end it consists more particularly, first, in the construction and arrangement of the lining, flue-strip, and damper, whereby the products of combustion may at will be caused to circulate between the lining and outer shell or casing of the stove, and thence into the exit, or may be allowed to escape at once into the direct path to the exit; second, in the construction of a stove of this class, with a flat top provided with apertures or holes for cooking-vessels; third, in the combination of the stove aforementioned and an elevated oven; fourth, in the peculiar construction of the stove and oven, whereby the latter may be removed and its place substituted by a pipe-collar plate; fifth, in constructing the top plate of cast-iron, and the exterior oval-casing of sheet-iron; sixth, in the combination and arrangement of the stove door and passage for the products of combustion, whereby a direct exit can be always afforded from a point higher than the top of the feed-door, or a strong and thorough circulation created through the body of the stove; seventh, in the specific detail of construction and combination of the several parts of the stove, whereby a simple and efficient parlor cooking-stove is constituted—all as will now be more particularly and in detail set forth and described.

In the drawing, A denotes the exterior sheet-iron casing, and A′ the flat cast-iron top, having any suitable number of pot-holes *a*, which are provided with covers in the usual way; this top has at each of its sides a flange or edge, *a′*, inclined downwardly a little, to correspond with the general curve of the sheet-iron casing, which is sprung around the lining and fastened at its ends to said flanges by bolts as at *a″*. B is the stove-door, *b* the draft opening in it covered by the usual valve. If desired, the openings may be in the body of the stove or hearth. The lining C extends the entire length of the stove, but at the sides and from the front to the flue-strip D it does not come up to the top of the stove, but so much of it is cut away as to leave on each side, in the ordinary method of construction, a broad passage or annular chamber, through which the products of combustion can be compelled to flow by closing the damper E located at the upper rear end in or on a line with the flue-strip D. By simply opening said damper a direct exit may be had for the products of combustion from the fire-chamber into the flue passages F′, which embraces the bottom, sides, and top of the oven F, and thence out at the exit-pipe which, in this instance, is attached to the pipe-collar F″. When this damper is closed there is a strong and equable circulation of the products of combustion throughout the passage or chamber between the lining and casing from its upper parts to the under side, and then through the opening *g* into up-

take flue or passages G at either side of the stove, connecting at the upper ends with flues F′ around the oven F. And thus there is not only a radiation of heat from the stove into the apartment upwardly, but horizontally, and also downwardly. This result is not wholly new in the present instance, but by this device and the present invention I have obtained the said ends in a more satisfactory and efficient manner than has been accomplished heretofore. In some instances I may close up the opening on one side between the upper edge of the lining and the casing. In this method of construction the products of combustion circulate in the indirect course when the damper in the outlet to the direct exit is closed, so as to sweep through the passage or annular chamber between the casing and lining, commencing at the top on one side, down the side, around the bottom, and up and out of a rear opening at *g′*. In this instance, as in the former, I have the flue-strip D, with the dampered direct exit and the open indirect exit aperture, and the general capacity of organization of the stove does not, in any particular degree, differ from what has before been described. In this general class of stoves it has been the usual, if not the invariable, practice to place the pipe-collar on one side of the stove, about midway between the top and bottom; but while this has been almost a necessity from the make-up of said stoves, it has been found in use that the stove smokes very badly whenever the front door is opened, as for replenishing the fuel; also, that the stove is frequently not adapted to be set conveniently in desired positions relative to the fire-place, wall, or mantel; and is otherwise objectionable. All these difficulties I have been able to overcome entirely by so constructing my stove that the exit-pipe is attached at the upper rear end. The oven F is made detachable. It is secured for use upon the top of the stove at the rear by any suitable and ordinary means. It may have in the top plate a pot-hole, *f*, provided with suitable cover, or this plate may be close. To provide for instances when the oven is not needed or desired, I have so constructed the rear opening *a‴*, in the cast-iron top plate, that it is adapted to receive interchangeably the oven or the stove-pipe collar-plate H, each of which in turn is so manufactured as to be readily applied to said opening, as may be required. When put on sale each stove is supplied with the oven and collar-piece. At the lower part of the stove, and suitably connected to the end pieces A″ A″, or to flanges thereon, are foot-rests I.

Having thus fully described my said invention, what I consider new, and wish to secure by Letters Patent, is—

1. The rear vertical flue-strip D, in combination with the lining C, and body and casing of the stove, substantially as described.

2. In the horizontal parlor cook-stove, substantially as herein described, the end plates A″, sheet-iron body A, and cast-iron plate-top A′, with suitable holes for culinary vessels combined, substantially as and for the purposes set forth.

3. The combination of the stove proper A A′ A″, lining C, and flue-strip D, having a suitable damper, with the detachable oven F, substantially as and for the purposes set forth.

4. The combination of the flat cast-iron top plate, having inclined flanges on its sides, with the sheet-iron horizontal body, substantially as described.

5. The combination of the vertical end plates A″ A″, body A, and top A′, with lining C and flue-strip D, having damper E, the several parts arranged and operating substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ALEXANDER WHITE.

Witnesses:

AMOS F. CUTTER,

OLIVER OLSEN.