

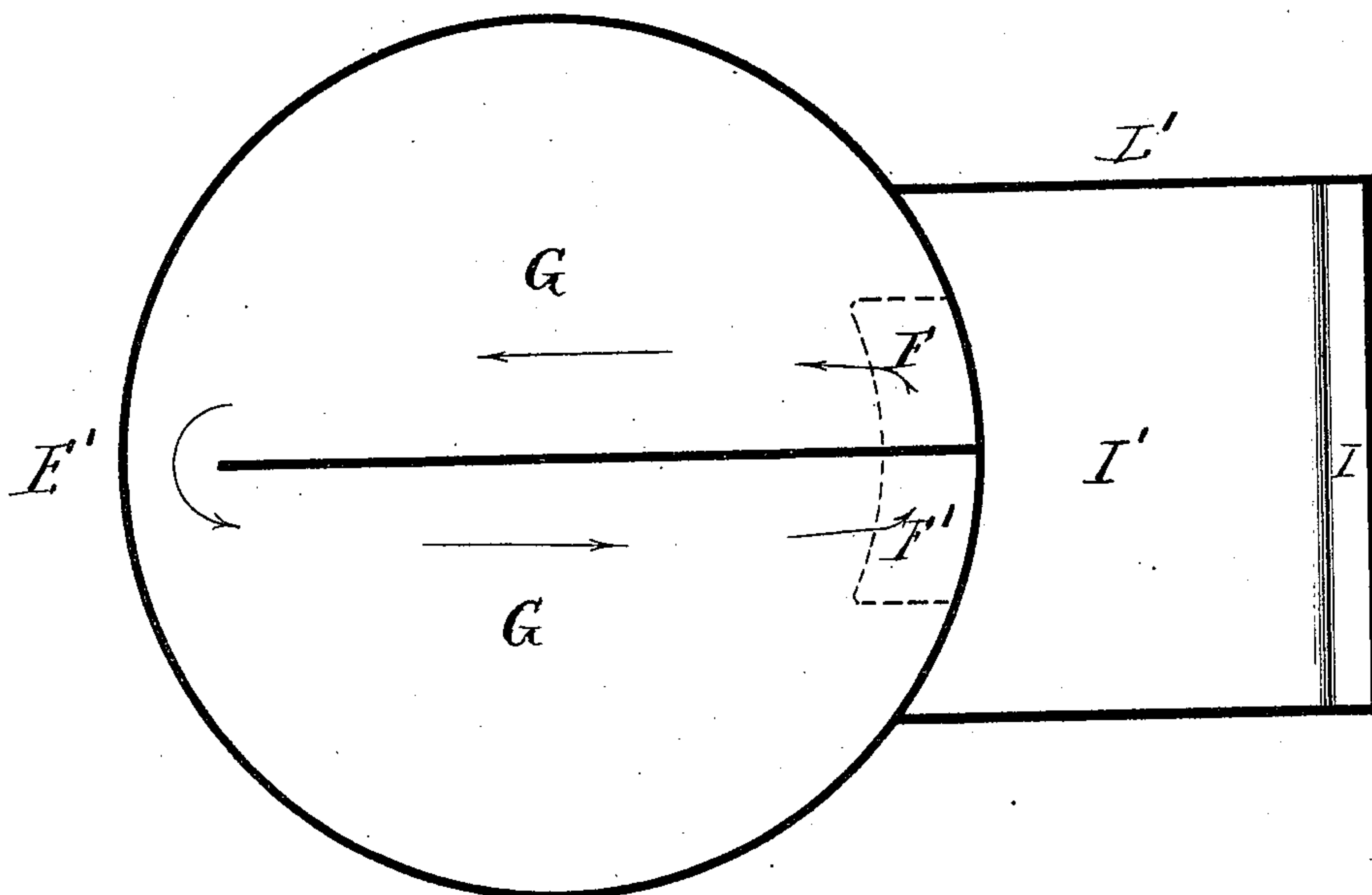
A. DICKEY & R. Z. LIDDLE.

PARLOR STOVE.

Patented March 14, 1876.

No. 174,788.

Fig. 4



WITNESSES:

E. J. Nottingham
J. L. Skidmore

Andrew Dickey
and
Robert L. Liddle

by their attorneys
Horsman and son

UNITED STATES PATENT OFFICE

ANDREW DICKEY AND ROBERT Z. LIDDLE, OF ALBANY, NEW YORK,
ASSIGNORS TO JOHN S. PERRY, TRUSTEE AND EXECUTOR, NATHAN
B. PERRY, AND ANDREW DICKEY, OF SAME PLACE.

IMPROVEMENT IN PARLOR-STOVES.

Specification forming part of Letters Patent No. **174,788**, dated March 14, 1876; application filed
March 18, 1875.

To all whom it may concern:

Be it known that we, ANDREW DICKEY and ROBERT Z. LIDDLE, both of Albany, New York, have invented certain Improvements in Parlor-Stoves, of which the following is a specification:

The object of our invention is to so combine a permanent or removable culinary attachment with a parlor-stove that the said attachment shall be heated by hot air derived from chambers heated by the fuel of the stove; and this object we attain in the manner we will now proceed to describe, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section of a sufficient portion of a parlor-stove to illustrate our invention; Fig. 2, a sectional plan on the line 1 2; Fig. 3, a sectional plan on the line 3 4; and Fig. 4, Sheet 2, a sectional plan on the line 5 6, Fig. 2.

B is the illuminating section of the stove, inclosing the combustion-chamber A. B' is the base-section, inclosing the ash-chamber, within which the fire-pot is suspended. E' is the hollow base containing the flues G.

At the rear of the base-section are the vertical descending flue F and ascending flue F', both these flues being contained within the casing of the stove, and communicating with the base-flues G. The products of combustion can, by suitable dampers, which it has not been deemed necessary to show in the drawing, be caused to pass directly to the exit-pipe O, or to pass down the flue F through the hollow base E', and upward through the flue F' to the said exit.

L' is the culinary attachment, so constructed and arranged relatively to the casing B', flues F and F', and hollow base E', that it may be attached to the rear of the base-section either permanently or so as to be readily removed, without change in construction or interfering with the proper operation of the stove and its flues.

When the culinary attachment L' is connected with the stove, it incloses more or less of the flues F F' and the hollow base E', so as to form chambers d', which are bounded

by the front wall of the oven L of the culinary attachment L', the side walls of the same, part of the base-section B' of the stove, hollow base E', and part of the top plate of the culinary attachment.

An air-chamber, H, is formed beneath the hollow base E', and has a free communication with the oven-flue I. That portion of the wall l of the oven which is opposite the flues F and F' may be removed, so that so much of the outer surface of said flues will be exposed within the oven L, and the direct heat therefrom employed to assist in heating same.

The chambers H and d' are necessarily exposed to a powerful heat, which we utilize by introducing air into the said chambers, and causing it to pass therefrom in a highly-heated condition to the flues of the oven, or through said oven, as may be most desirable, or both.

Cold air is admitted to the chamber H, near the front of same, through openings j j in the bottom plate h of the said chamber, whence it passes, through the flues I J, and K, around the oven L, and may be discharged through an opening, a, into the flue F'; or, when the opening a is closed by the damper b, and the damper g' properly adjusted, the air, after passing through the oven-flues, may escape through openings g in the top plate of the culinary attachment, and thus aid the stove in heating the apartment. In either case the heated air must make a complete circuit of the oven before it can escape from the flue K.

In the sides of the culinary attachment L' are openings d, through which cold air is admitted to the chambers d', where it is highly heated by the walls of the flues F F', casing B', and the hollow base E'.

The air thus heated in the chambers d' d' may be admitted to the oven in either of the two ways which may be suggested by the structure of the stove to which the oven is applied as the most appropriate. The air, for instance, may be admitted into the chamber d' through openings d near the top of the side walls of the culinary attachment L', and directed downward into and through the flue I', and, meeting the air from the chamber H, may pass

through the flues J and K. The second plan is to cause the air heated in the chambers d' to pass through openings e or e^2 and through the oven, and thence through openings f or f^2 into the flue J. These two plans can be used separately or unitedly, at pleasure.

In utilizing the air heated in the chambers d' d' by causing it to pass through the oven, we do not confine ourselves to the precise location shown for the openings for admitting the air to, and permitting it to escape from, the said oven; for instance, the cold air may be admitted to the chambers d' near the bottom of the same, and permitted to pass in a heated condition into the oven-chamber through opening e , and out of same through openings f , as shown; or the cold air may be admitted to the chambers d' near the top of the same, and may enter the oven at the openings e^2 , and may leave the oven at the openings f^2 . In either case there will be a circulation of air highly heated in the chambers d' through the oven L.

P P are openings in the top plate at the culinary attachment L' for the introduction of culinary vessels. The combined currents of hot air, in their passage through the flue K, impinge directly and with great power upon said vessels, and thus a simple and efficient means for boiling is provided without in any way interfering with the operation of the oven L.

The hot-air chamber H, formed underneath the hollow base E', may be omitted, and those only at d' d' be employed to heat the oven.

The only changes required in a stove for receiving the culinary attachment is to provide an opening, a , in the ascending flue F, which opening may be closed by a buttoned door in the absence of the said attachment, and to add the plate h to form the chamber H beneath the hollow base, these changes being of a trifling character.

It will be observed that it is not necessary to make the said attachment a fixed portion of the stove, but may be removable when not

required for use or to suit the wishes of purchasers.

We claim as our invention—

1. The combination of a heating-stove having a descending and an ascending flue at the rear with a baking and boiling attachment heated solely by hot air, and admitting of being connected to or disconnected from the stove at pleasure, all substantially as set forth.
 2. The oven L and flues I', J, and K, in combination with the air-heating chambers d' and apertures d , substantially as described.
 3. The air-heating chamber H below the base-flues of the stove, and having air-openings, in combination with the oven L, flues I, J, and K, substantially as set forth.
 4. Air-heating chambers H and d' , combined with each other, and with the flues I, I', and J of the oven L, substantially as specified.
 5. The oven L, air-chambers d' , and apertures on opposite sides of the oven, in combination with the flues J and K.
 6. The oven L, air-chambers d' and H, flues I, I', J, and K, in combination with the aperture a , substantially as described.
 7. The oven L, air-chambers d' and H, flues I, I', J, and K, in combination with the apertures g .
 8. The oven L, in combination with the air-chambers d' and flues F and F'.
 9. The oven L, in combination with the chamber H, its air-openings, and the hollow base E'.
 10. The damper b , arranged and operated in combination with the flue K and smoke and gas flue F'.
- In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ANDREW DICKEY.
ROBERT Z. LIDDLE.

Witnesses:

FRANK A. TREADWELL,
CHAS. W. SIMON.