

(No Model.)

2 Sheets—Sheet 1.

D. F. TREFRY.

LAMP STOVE.

No. 255,703.

Patented Mar. 28, 1882.

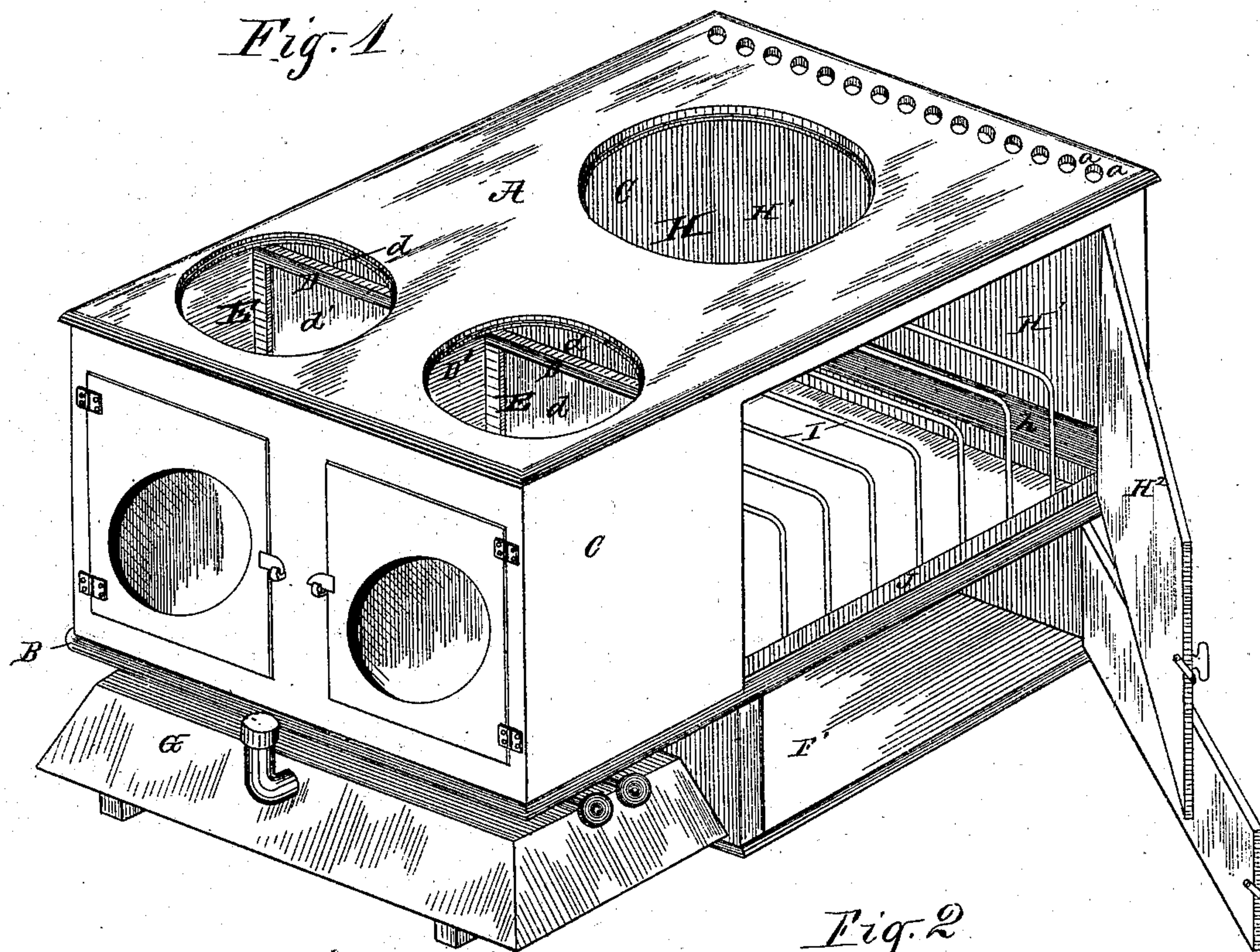


Fig. 2.

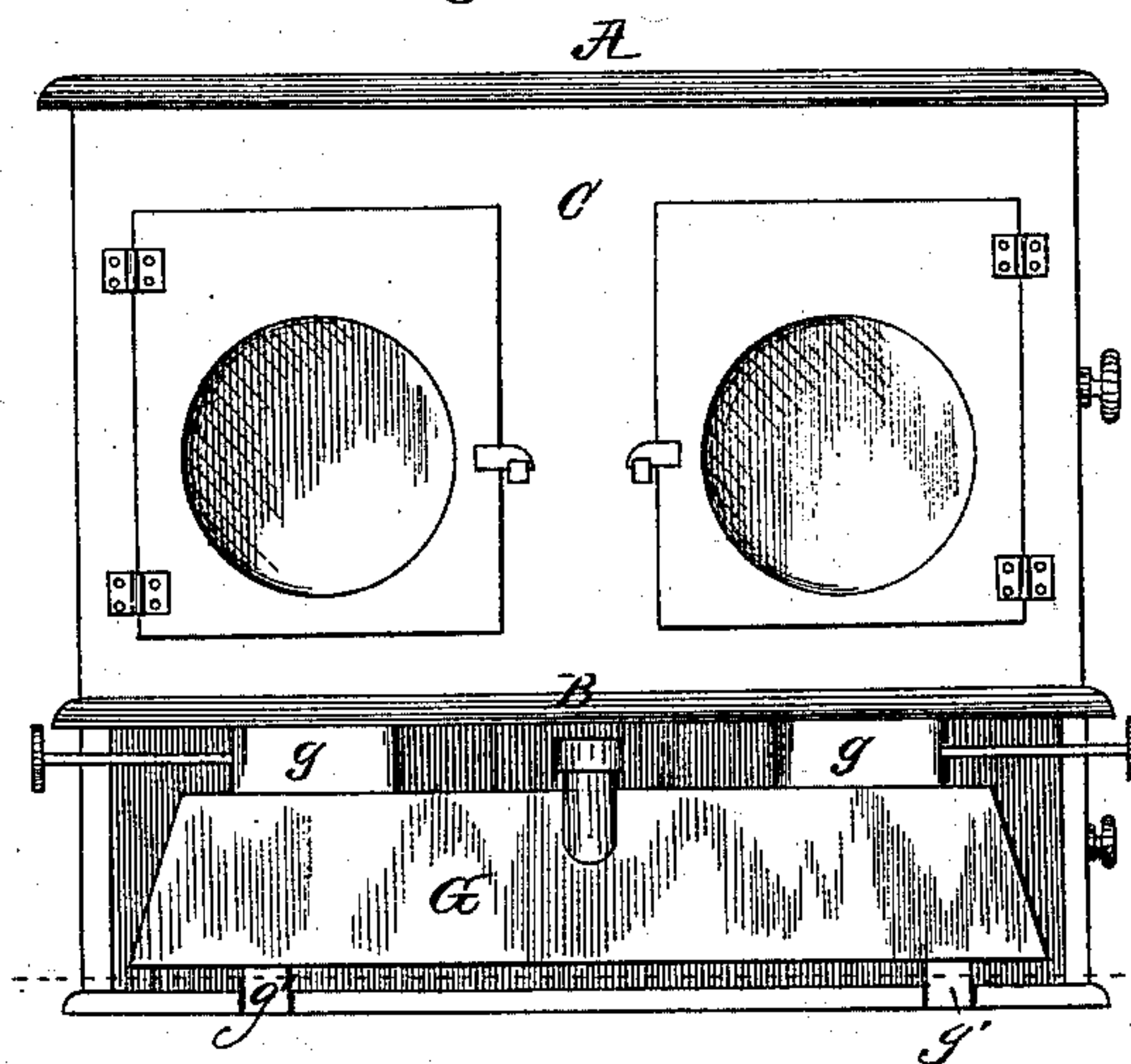
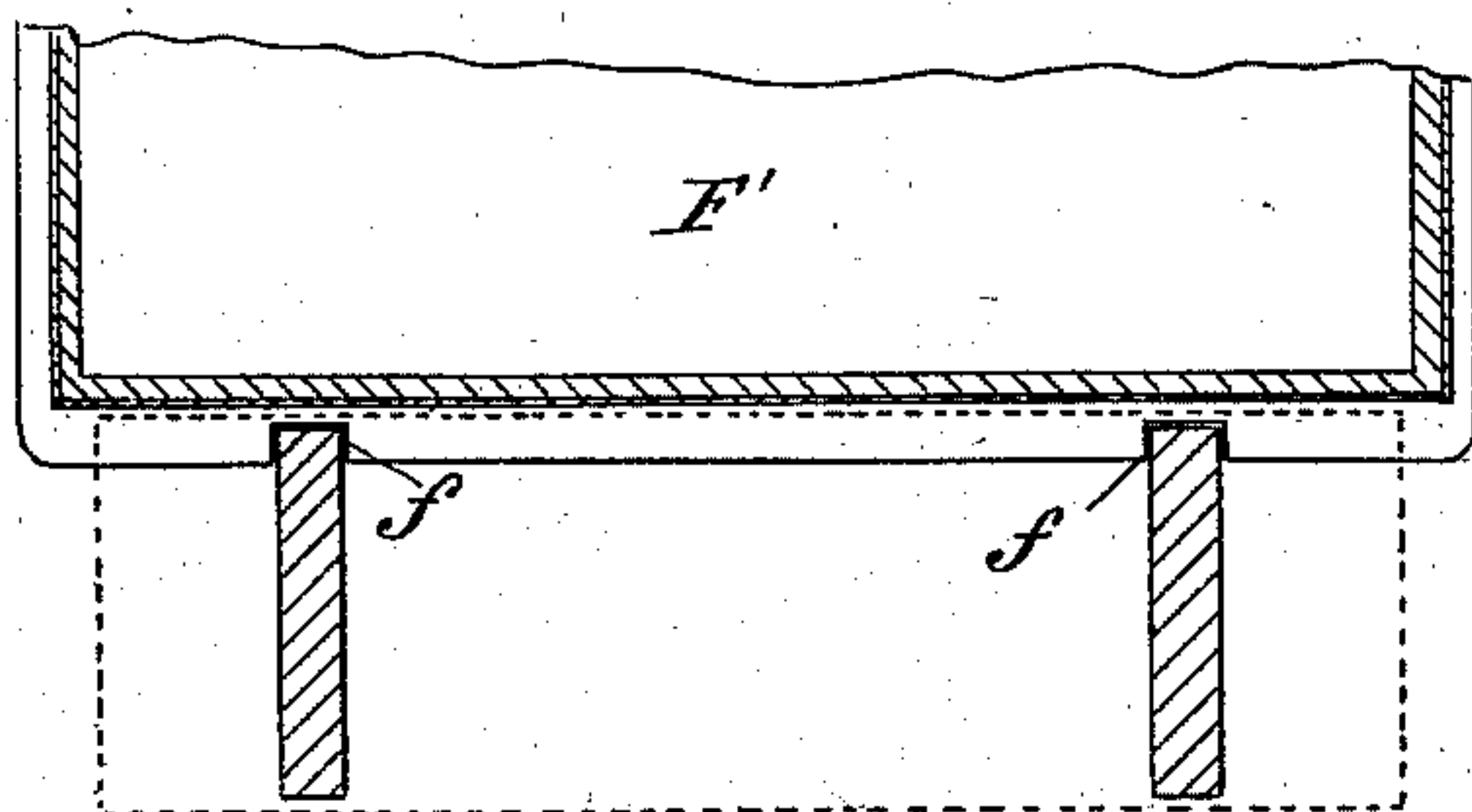


Fig. 4.



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INVENTOR—
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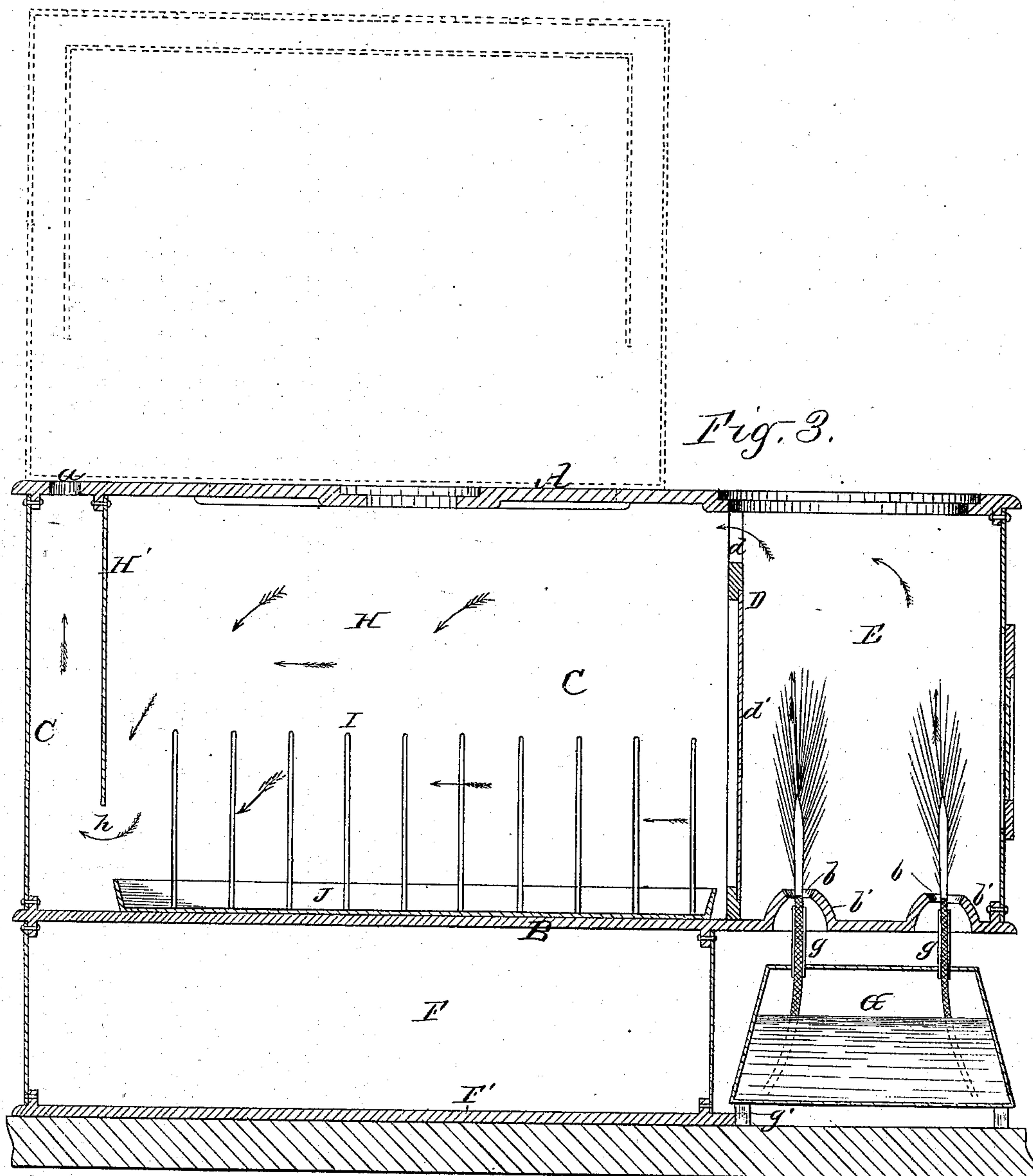
2 Sheets—Sheet 2.

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F. U. Adams
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INVENTOR—
David F. Trefry
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UNITED STATES PATENT OFFICE.

DAVID F. TREFRY, OF CHICAGO, ILLINOIS, ASSIGNOR TO SARAH E. TREFRY, OF SAME PLACE.

LAMP-STOVE.

SPECIFICATION forming part of Letters Patent No. 255,703, dated March 28, 1882.

Application filed October 17, 1881. (No model.)

To all whom it may concern:

Be it known that I, DAVID F. TREFRY, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lamp-Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to lamp-stoves; and it consists primarily in a lamp-stove having a roasting-chamber located at one side of the flame-chamber and connected therewith to receive the products of combustion, and also provided with an outlet for their discharge. It also consists in other features of construction in a lamp-stove provided with a roasting-chamber located laterally to the flame-chamber, as will be hereinafter fully set forth, and stated in the claims.

In the drawings, Figure 1 is a perspective view of my improved stove. Fig. 2 is a front view thereof. Fig. 3 is a vertical section from front to rear through Fig. 2, and Fig. 4 is a fragmentary horizontal section through the warming-chamber.

A and B are horizontal top and middle plates of the stove, of equal dimensions, and C C are vertical walls uniting them at their margins. The interior thereby inclosed is divided transversely by the partition D, which rises from the plate B to within a short distance of the plate A, leaving an upper passage, *d*. The front space thus cut off is intended to contain the lamp-flames, and is preferably centrally divided into two compartments, E, by the central partition, D', reaching to the top plate, A, a flame or flames being provided for each compartment. The rearward space, H, is the roasting-chamber. Beneath the latter is located a warming-chamber, F, properly inclosed, the walls of which support the plate B at an elevation of a few inches, leaving a space beneath the front of the stove, occupied by the lamp-reservoir G. The plate B is apertured at *b b*, Fig. 3, to admit lamp-flames, being preferably cast with elevations or cones *b'* about said apertures, as also shown in Fig. 3. The lamp tubes and wicks are of the wide variety,

and are arranged parallel with the partition D, so as to present the broad surface of the flame toward it. Said partition D consists of a suitable metal frame supporting panes of mica *d'* opposite the flames, whereby heat from the flames is radiated into the lateral roasting-chamber H. At the rear of said chamber H a plate, H', descends from the top plate, A, to near the plate B, leaving a transverse passage, *h*, at the bottom thereof. A series of holes, *a a*, are located in the top plate, A, in a transverse row at the rear of the deflecting-plate H'. A pot-hole is located over each flame chamber or compartment, and also over the roasting-chamber, as clearly shown in the drawings.

I am aware that a pot-hole has heretofore been so placed as to open into a passage leading around the roasting-chamber. The arrangement herein shown differs from this in opening directly into the roasting-chamber.

In operation the products of combustion pass over the partition D, through the roasting-chamber H, beneath the plate H', and out through the openings *a a*. Heat is also radiated horizontally from the micas *d'* into the roasting-chamber. To properly intercept and utilize heat-currents thus produced within the chamber H, the latter is provided with an elevated grating or open shelf, I, upon which the articles to be cooked are placed, so that the radiated heat from the mica acts upon its side and lower surface, while the current of heated air and gases from the flame descends upon their remote sides and top in its passage to the outlet *h*. Said shelf is preferably supported removably upon or in the dripping-pan J. By these means all portions of the surface are found to be acted upon with substantial evenness and with the best results in rapidity and thoroughness of cooking. A removable dripping-pan, J, covers the bottom of the chamber H, and a broad side door, H², gives access to said chamber.

At the pot-holes boiling and baking may be done while roasting is going forward in the chamber H, an oven of ordinary construction being shown in dotted lines in Fig. 3, which covers the outlet-openings *a a*, receives the heated products through the rear pot-hole, and

discharges them through apertures at the top of the oven. The warming-chamber has also a broad side door, (seen in Fig. 1,) and the flame-chambers have doors in front.

5 The lamp is preferably wholly detached or detachable from the stove, being contrived to sustain the wick-tubes *g* in proper vertical relation to the apertures *b* when it stands on the same plane with the lower plate, *F'*, of the
10 warming-chamber *F*. By notching the base-plate *F'* at *f*, Fig. 4, to receive the legs *g'* of the lamp-reservoir, the tubes *g* may also be readily adjusted and held laterally in proper relation to said apertures *b*.

15 A stove constructed in the manner shown and described and provided with four broad wicks, two for each flame-compartment, as indicated in the drawings, is found to have great capacity and to accomplish its work with
20 rapidity and economy.

I claim as my invention—

1. In a lamp-stove, the combination of a flame-chamber and a cooking-chamber arranged side by side, substantially as shown, a
25 mica partition dividing said chambers opposite the flame, a passage connecting the flame and cooking chambers, and a suitable outlet from the latter, substantially as and for the purposes set forth.

30 2. In combination with the flame and cooking chambers arranged side by side, divided by mica opposite the flame, and having a connecting-passage for the products of combustion, the elevated open shelf *I*, arranged to
35 support the article being cooked horizontally

opposite or above the flame, substantially as and for the purposes set forth.

3. The combination, in a lamp-stove, of the chambers *E* and *H*, arranged side by side, as shown, the mica partition *D*, the passages *d* 40 and *h*, relatively arranged, as indicated, and the open shelf *I*, horizontally opposite the flame in the chamber *E*, substantially as and for the purposes set forth.

4. The lamp-stove herein described, composed of the flame-chamber, roasting-chamber, and warming-chamber, said flame and roasting chambers being arranged side by side and supported by the warming-chamber, said warming-chamber extending only beneath the roasting-chamber, thereby leaving a space beneath
50 the flame-chamber for the lamp, as described.

5. In a lamp-stove having flame and cooking chambers arranged side by side and communicating by a passage leading from the upper
55 part of the flame-chamber, a pot-hole in the top of the cooking-chamber, substantially as described.

6. The front edge of the base *F'*, notched to admit the legs or base of the lamp-reservoir
60 *G*, whereby the tubes *g* are brought in proper relation to the apertures *b*, substantially as and for the purposes set forth.

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

DAVID F. TREFRY.

Witnesses:

M. E. DAYTON,
W. C. ADAMS.