

E. A. RIPPINGILLE.

Lamp for Lighting and Heating.

No. 160,352

Patented March 2, 1875.

FIG. 2.

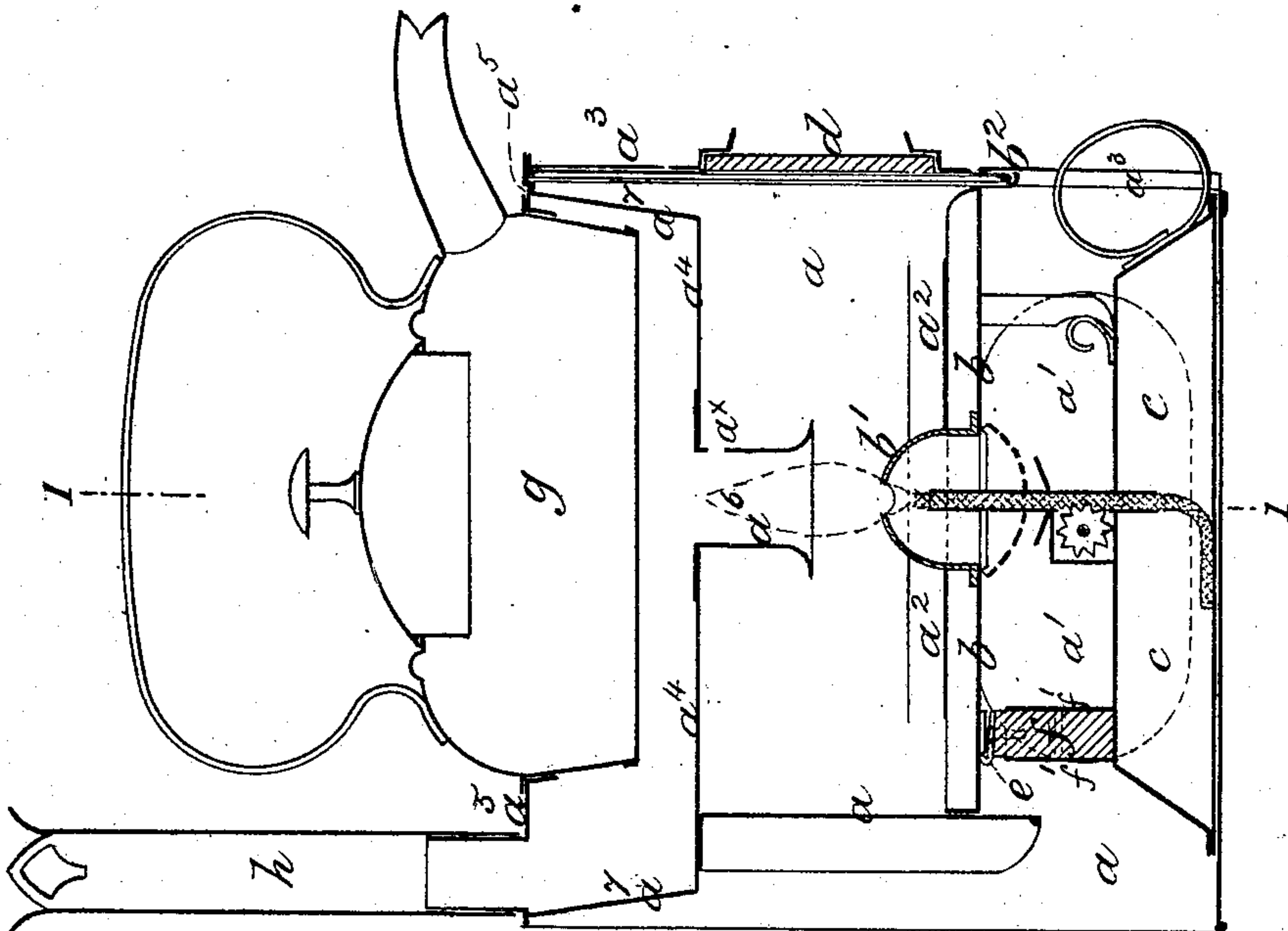
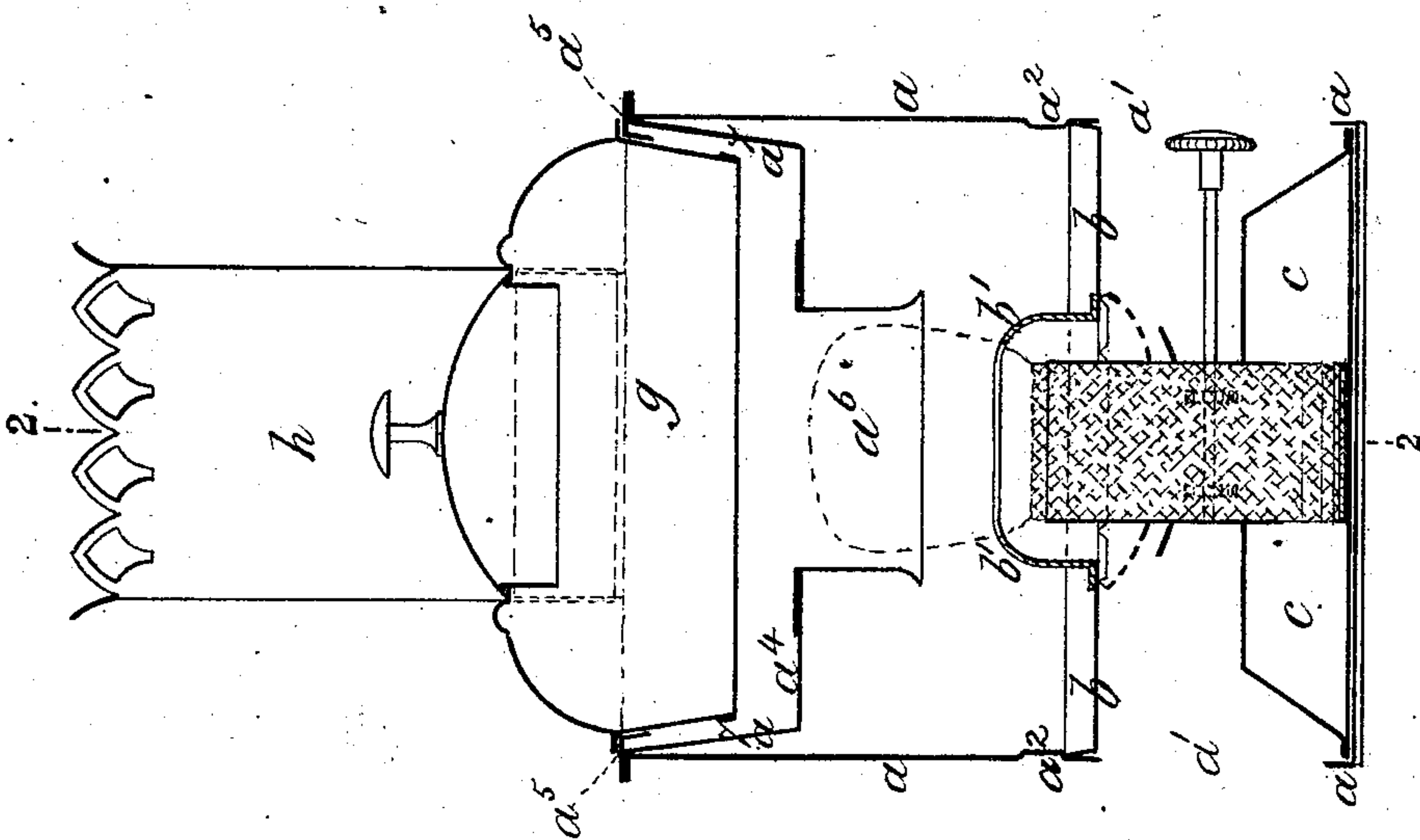


FIG. 1.



Witnesses:
John C. Kemont
Chas. A. Pettit

By *[Signature]*

Inventor:
E. A. Rippingille
Attorneys

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FIG. 4.

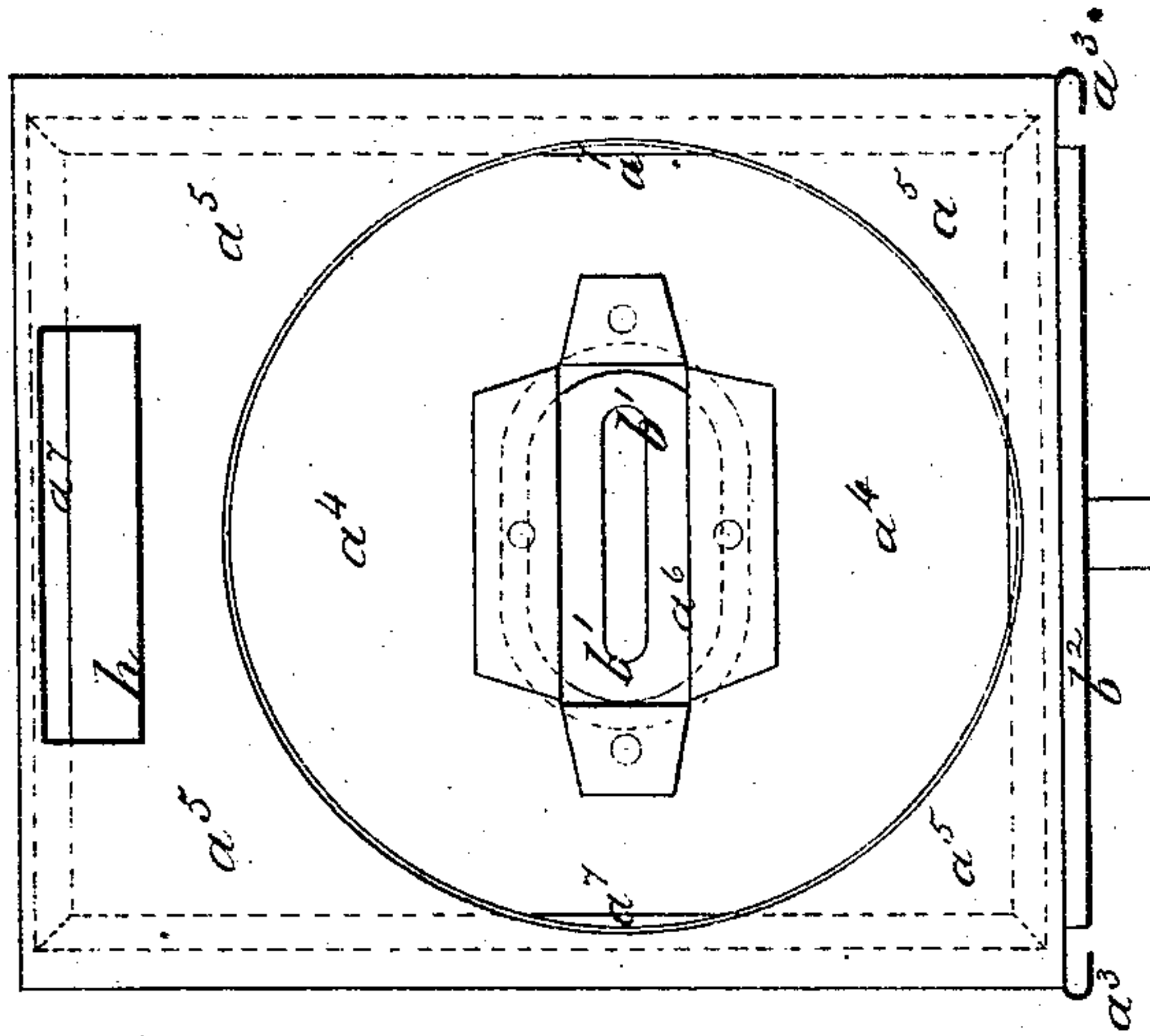
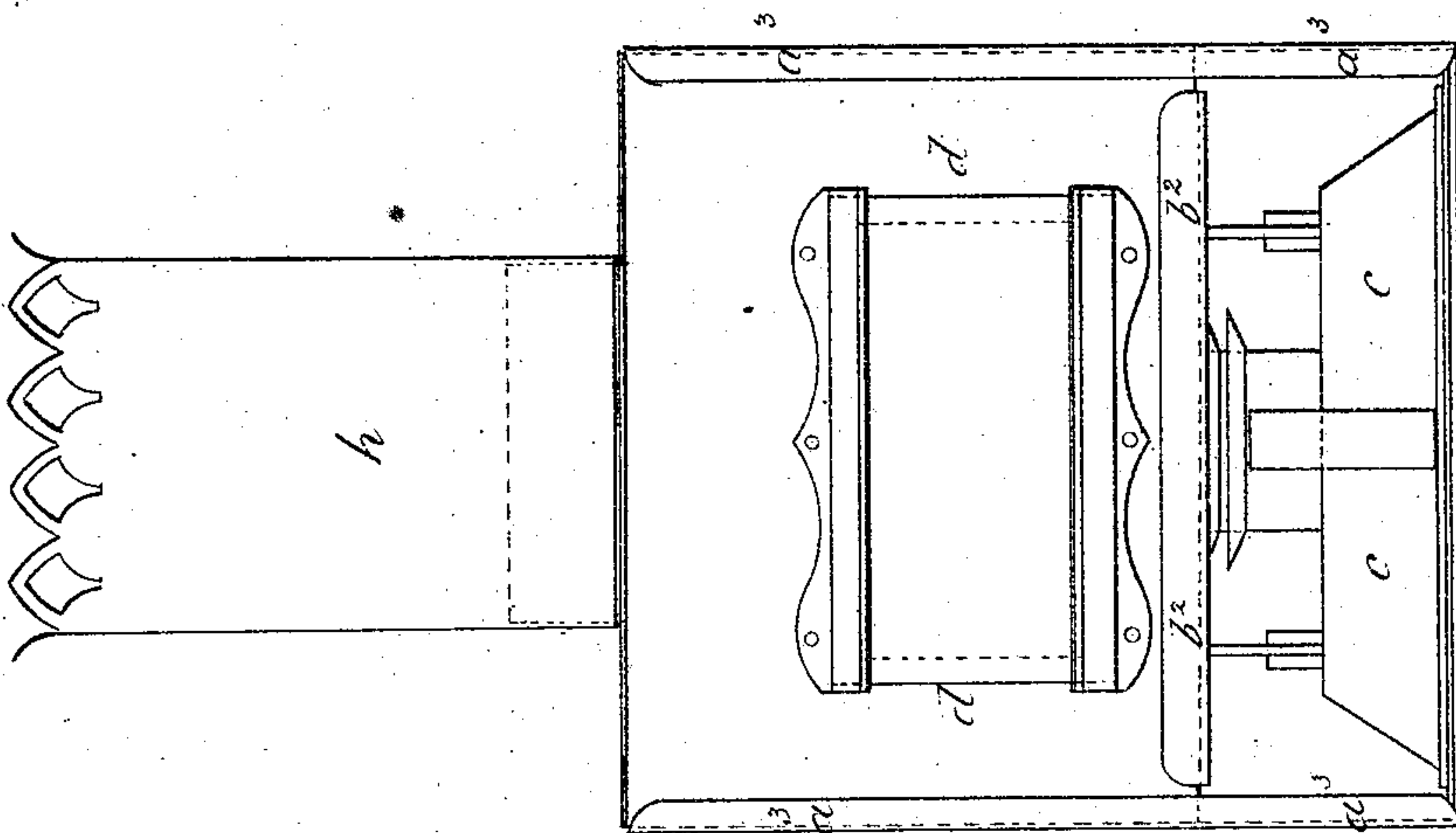


FIG. 3.



Witnesses
Glouc Kenner
Chas. A. Pettit

Inventor
E. A. Rippingille
By *[Signature]* Attorneys

UNITED STATES PATENT OFFICE.

EDWARD A. RIPPINGILLE, OF HOLBORN, ENGLAND.

IMPROVEMENT IN LAMPS FOR LIGHTING AND HEATING.

Specification forming part of Letters Patent No. **160,352**, dated March 2, 1875; application filed December 14, 1874.

To all whom it may concern:

Be it known that I, EDWARD ALEXANDER RIPPINGILLE, of Holborn, in the county of Middlesex, England, have invented certain Improvements in Lamps for Lighting and Heating, of which the following is a specification:

The invention relates to a novel construction of lamp-stove, whereby, while obtaining light therefrom, the heat can be applied to the purpose of warming the air in an apartment, or to other heating, boiling, or culinary purposes.

For this purpose I form the lamp so that the oil-reservoir and cone-plate can be slid into and out of position; and I connect the cone-plate to the oil-reservoir by means of a hinge-joint fixed to a piece of wood or other non-conducting material carried by the oil-reservoir. The cone-plate is formed to fit the body of the lamp, and thereby shut off air communication between the upper and lower sides thereof, except through the cone. The top of the lamp-stove is formed of two plates, in the lower one of which is fixed a short metal tube or chimney, while in the upper one is formed a hole to serve as a seat for a kettle or other article; and at one side or corner thereof is fixed a chimney to carry away the products of combustion and permit of a kettle or other article being placed immediately over the flame. A suitable space is left between the two top plates to allow the heat and products of combustion to circulate around the kettle or other article before passing away by the chimney. The lower of these two plates is joined to the upper one by means of side pieces, leaving a space between them and the sides of the lamp to prevent too much heat being communicated from the upper to the lower parts of the lamp. The front of the lamp-stove is formed by means of a glazed slide, fitting in grooves formed at the sides of the apparatus, and resting at its bottom edge in a groove formed in the cone-plate; or one part thereof may be fixed to the lamp, and the other part to the cone-plate. Openings are formed in the sides of the lamp to admit air freely to the under side of the cone-plate, and to enable the wick to be regulated without disturbing any part of the lamp. If

desired, a reflector may be employed inside the lamp, in which case one half or part may be fixed inside the lamp, and the other half or part carried by the cone-plate.

And in order that my said invention may be more clearly understood and readily carried into effect, I will proceed, aided by the accompanying drawings, more fully to describe the same.

Figure 1 is a vertical section on the line 1 1 of Fig. 2. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is a front view, and Fig. 4 is a plan, of a lamp constructed according to my invention, which can be employed for heating a kettle or other article placed on the top thereof; and Fig. 5 is a vertical section of a slight modification of my invention, showing it applied to means for heating an apartment.

In all the figures similar letters of reference indicate like parts.

a is the body of the lamp-stove, which is formed with openings *a'* in the sides thereof, and is open at the back and front below the cone-plate *b*, to admit air freely to the under side of such cone-plate. *c* is the oil-reservoir, which, with the cone-plate *b*, is formed to slide into and out of position in the lower part of the apparatus; and by means of the cone-plate *b* being made to fit the inside of the lamp it is caused to shut off air communication between the upper and lower sides thereof, except through the cone *b'*. The sides of the lamp-stove are indented, as shown at *a''*, to act upon the sides of the cone-plate *b*, and thus hold it and the oil-reservoir *c* in position. The front of the lamp-stove is formed, as shown in the drawings, by means of a glazed slide, *d*, fitting in grooves *a'''* at the sides of the lamp-stove, and resting at its bottom edge in a groove, *b''*, formed in or fixed to the cone-plate *b*; or one half or part of the front may be fixed to the lamp, and the other half or part may be fixed to the cone-plate, so that when the oil-reservoir *c* and cone-plate *b* are slid into the lamp, the front of the lamp shall be completely formed by the one part overlapping the other; or the slide *d* may be slid into position sidewise, as will be well understood. The cone-plate *b* is connected to the oil-reservoir *c* by means of a hinge, *e*, fixed

to a piece of wood or other non-conducting material, *f*, fixed in a socket, *f'*, carried by the oil-reservoir *c*. The top of the lamp-stove is formed of two plates, *a*⁴ *a*⁵, in the lower one, *a*⁴, of which is fixed a short metal tube or chimney, *a*⁶, while in the upper one, *a*⁵, is formed a hole to serve as a seat for a kettle, *g*, or other article; and at one side or corner thereof is fixed a chimney, *h*, to carry away the products of combustion, and at the same time permit a kettle or other article to be placed immediately over the flame. A suitable space is left between the plates *a*⁴ *a*⁵ to allow the heat and products of combustion to circulate around and beneath the kettle *g*, or other article, before passing away by the chimney *h*. The lower plate *a*⁴ is joined to the upper one *a*⁵ by side pieces *a*⁷, leaving a space between them and the sides of the apparatus, to prevent too much heat being communicated from the upper to the lower parts of the lamp.

In order to enable anyone to ascertain when the flame is at a proper height, I make a small hole, *a*^{*}, in the chimney *a*⁶, at which height the flame should stand.

If desired, a reflector may be employed inside the lamp-stove, as shown at Fig. 5; in which case one half or part, *i*, may be fixed inside the lamp, and the other half or part, *i'*, may be carried by the cone-plate.

At Fig. 5 I have also shown the application of means for warming the air of an apartment by substituting for the kettle *g* a warming apparatus, consisting of a close chamber, *j*, surrounded by a chamber, *k*, having openings *k*¹ *k*² therein, to permit the air to enter and leave such chamber in the direction of the arrows, and thereby warm the air of an apartment. In this case I have also shown a greater distance between the cone-plate *b* and the plate *a*⁴, so as to allow the flame to be quite

clear of the chimney *a*⁶, and thereby obtain a greater amount of light than can be obtained from the lamp shown at Figs. 1, 2, 3, and 4.

If desired, more than one side of the apparatus can be glazed, and two or more lamps may be combined together, so as to afford facility for cooking or heating various articles simultaneously; in which case each lamp would be provided with slides or dampers to shut off communication with the other or others, in case one or more of them should not be required; or several separate burners and cones may be used in one lamp, in the top plate *a*⁵ of which openings of various sizes would be formed, so that several utensils could be placed in position at the same time. In this case the plate *a*⁴ would have fixed thereto as many small metal chimneys *a*⁶ as there are burners, and covers would be used to fit the holes in the plate *a*⁵, so that in the event of any burner or burners not being required, a cover can be placed in the hole in plate *a*⁵ over each burner not required.

Having thus described the nature of my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The cone-plate *b*, combined with the oil-reservoir *c* by hinging it to a piece of wood or other non-conducting material, *f*, in manner substantially as herein shown and described.

2. For forming the front of the lamp-stove, a glazed slide, *d*, in combination with grooves *a*³ *b*², in manner substantially as herein shown and described.

3. The combination of the reflectors *i* *i'* with the lamp for heating and lighting, in manner substantially as herein shown and described.

EDWARD ALEXR. RIPPINGILLE.

Witnesses:

B. J. B. MILLS,
CHARLES WHITE.