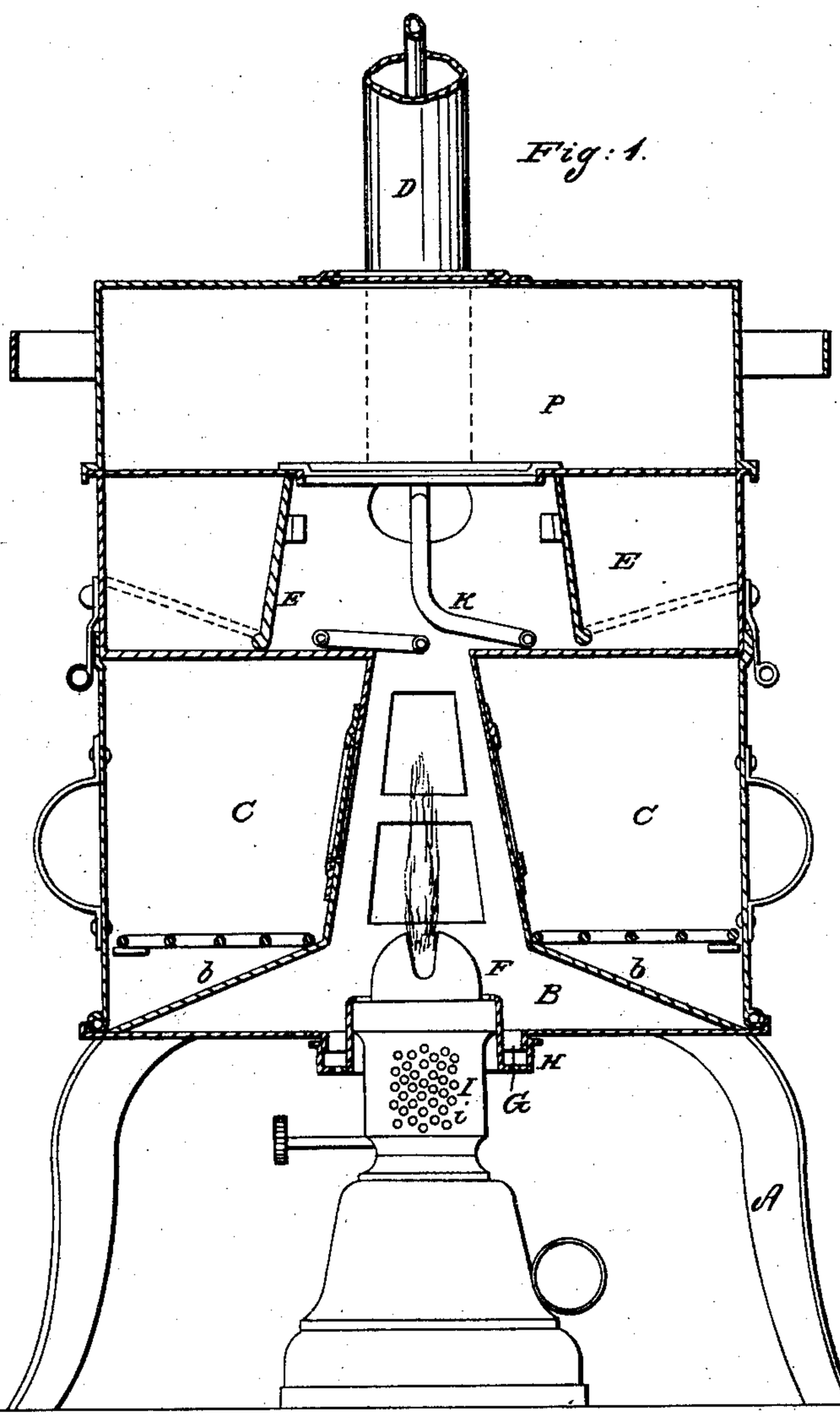
3 Sheets—Sheet 1.

J. E. AMBROSE.

Coal Oil Lamp and Gas Stove.

No. 46,045. Patented Jan'y 24, 1865.

Fig: 1.



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Inventor:
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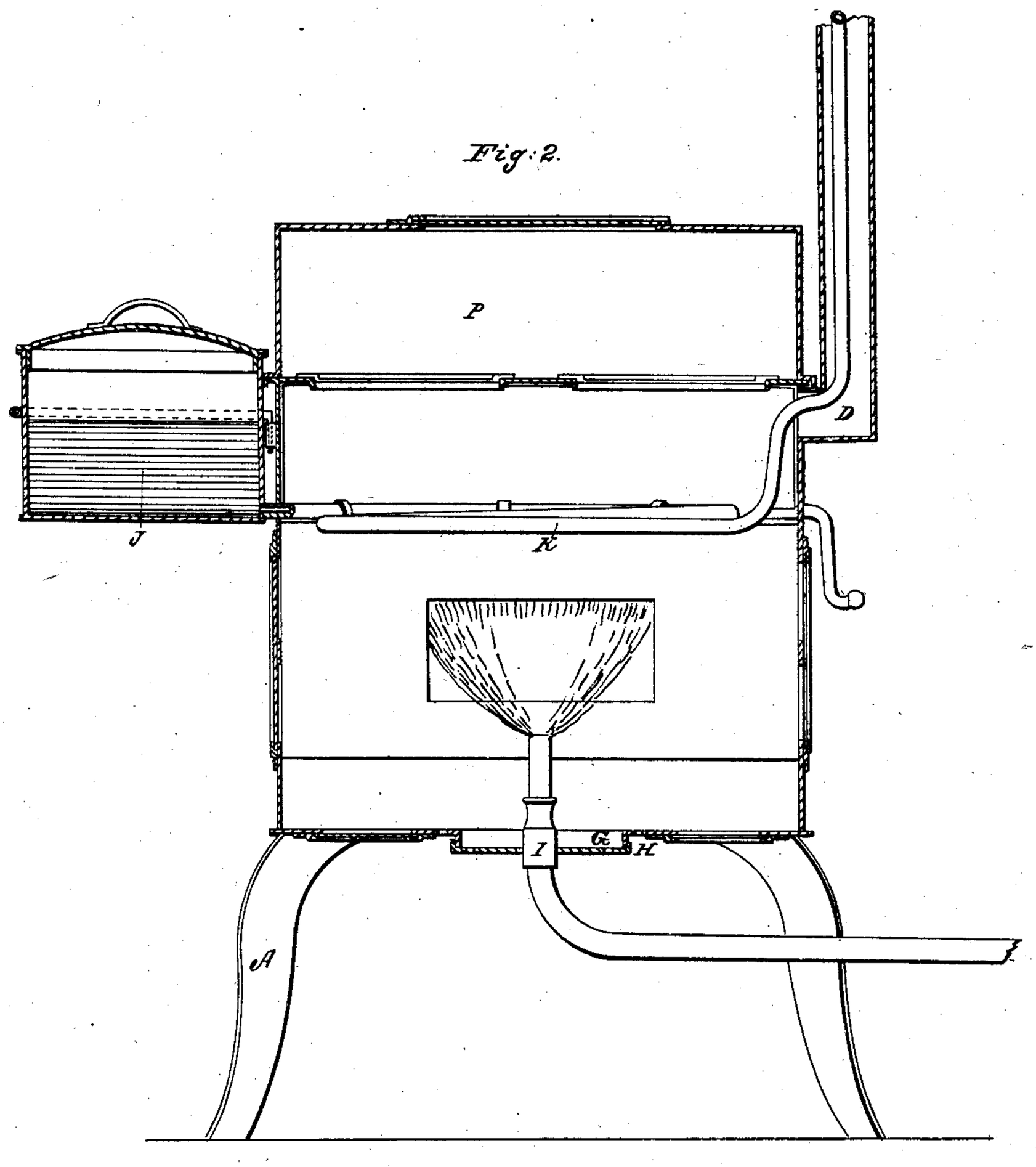
Fig: 2.



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3 Sheets—Sheet 3.

J. E. AMBROSE.

Coal Oil Lamp and Gas Stove.

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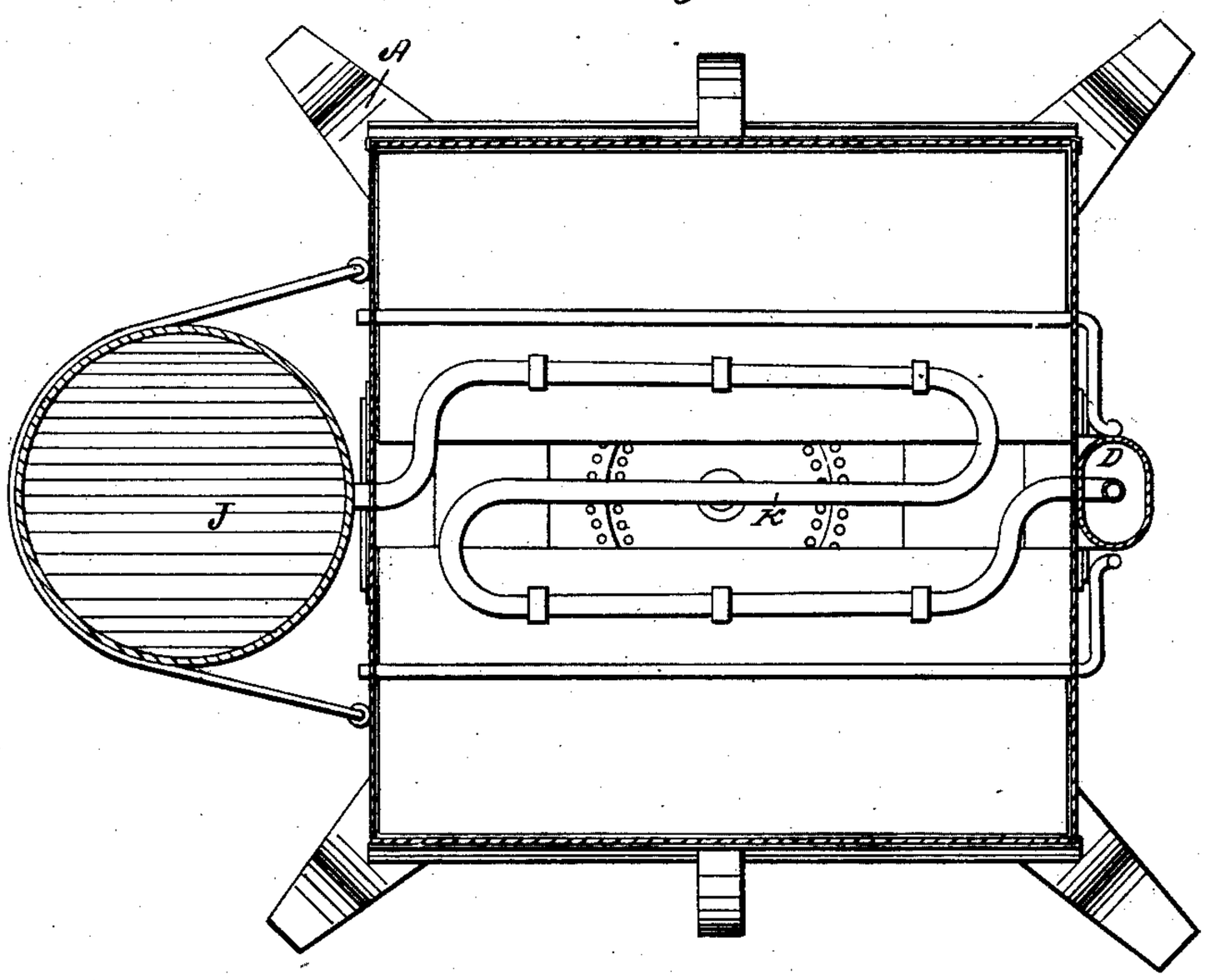
Fig. 3.



Witnesses:
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A. Turner

Inventor:
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UNITED STATES PATENT OFFICE.

JOSHUA E. AMBROSE, OF MIDDLETOWN, NEW YORK, ASSIGNOR TO SARAH T. AMBROSE, OF PASSAIC, NEW JERSEY.

COAL-OIL LAMP AND GAS-STOVE.

Specification forming part of Letters Patent No. **46,045**, dated January 24, 1865.

To all whom it may concern:

Be it known that I, JOSHUA E. AMBROSE, of Middletown, Orange county, New York, have invented, made, and applied to use a new and Improved Coal-Oil Lamp and Gas-Stove for Illuminating, Heating, and Cooking Purposes; and I do declare the following to be a full, clear, and correct description of the same, reference being had to the accompanying drawings, making part of this specification, and to the letters of referenee marked thereon, in which—

Figure 1 is a front sectional view of my improved coal-oil and gas-stove; Fig. 2, a side sectional view of the same; Fig. 3, a top view of the same.

In the drawings like parts of the invention are designated by the same letters of reference.

The nature of my invention consists, (*a*) in the use or employment of the mica, arranged as hereinafter described, for the purpose specified; (*b*) in the use or employment of the apparatus for the manufacture of steam, in combination with the stove, as hereinafter described, for the purpose specified; (*c*) in the use or employment of the flue, constructed as hown, for the purpose specified; (*d*) in the use or employment of the dampers, in combination with the flue, for the purpose specified; (*e*) in the use or employment of the holder, in combination with the burner, for the purpose specified; (*f*) in combining with the stove, provided with the side ovens, the flue, for the purpose specified.

To enable those skilled in the arts to make and use my invention, I will speak of its construction and operation.

A shows my improved coal-oil lamp and gas-stove, made of any suitable metal. The diameter of this stove A is equal, but may be made unequal, if desired. The height of the stove is about six inches.

B shows the flue, which flue is formed of two pieces of metal, *b*. Each piece forming one side of the flue is made complete, and forms the bottom and top of the side ovens and the top of the stove. The design in constructing the sides of the flue each of one piece of metal is to convey the heat communicated by the lamp or lamps placed beneath the stove more readily from one extremity to the other of the stove.

The construction of the flue B is as follows: Instead of extending in a perpendicular line from the bottom to the top of the ovens, each side of the flue angles about two inches from the bottom outward to the extreme edges of the bottom of the stove A, forming the bottom of the side ovens, and leaving an open space between the bottom of the ovens and the bottom of the stove prevents the bottom of the stove becoming heated, as it otherwise would. This flue B is designed to be about two and a half inches wide where the angle begins and one inch wide at the point above where the flue makes a right angle outward and begins to form the top of the oven. The design of narrowing the flue at this point is to bring the flame more directly in contact with the plates forming the sides of the flue, thereby securing a greater amount of heat to the side ovens and through the whole stove than would result were the flue made as wide at the top as at the bottom.

C shows the side ovens, placed on each side of the stove, and provided with suitable covers, which ovens are intended for baking purposes.

D shows the outside draft-flue, extending from the rear of the stove upward.

Directly over the ovens C, and beneath the top of the stove are the dampers E—one on each side of the flue B—which dampers, when turned up—it being desirable to use the top of the stove for cooking purposes—throw the main current of heat directly underneath the top of the stove.

The top of the stove may be provided with one or two openings, for the reception of griddles, and when two lamps are to be used, these openings should be made so that the lamps will be directly beneath them. The bottom of the stove is provided with an opening, F, for the insertion of the burner of a coal-oil lamp or of a gas-burner. This opening is provided with the lip G, extending downward. This lip sets into holder, H, which holder slips over the rim of the burner I. This holder H is provided with a series of openings outside of the lip, which slips into the holder.

The current of air which passes through the

openings in the holder enters the body of the stove, while the currents of air that pass through the openings *i* in the shell of the burner pass up to the flame through the slotted cap of the burner.

The stove should be made air-tight, except as described, at the bottom, and when thus made and the lamp is in its place it forms a draft, the same as a chimney would, and the same white and strong flame is obtained as with a chimney.

Gas may be used instead of a coil oil lamp by removing the lamp and substituting for it the arrangement shown in Fig. 2. This arrangement consists of a circular plate of metal, provided with openings, through the center of which a gas-burner is inserted.

To increase the amount of heat, I use, in combination with the stove, an apparatus for making steam. This consists of the reservoir J, placed on the outside of the stove. Into the bottom of this is inserted the tube K, extending into the interior of the stove and bent into any convenient form, and resting on the the top of the side ovens and over the lamp or lamps employed. This tube K extends from the reservoir J and terminates in the draft-flue D at a point above the level of the top of the reservoir J, leaving a space in the tube for steam. The reservoir J is filled with water, which fills the tube K to a point on a level with the water in the reservoir J. The heat from the lamp or lamps converts the water in the tube into steam. By placing a tube with an elbow over the top of the tube terminating in the draft-flue D the steam formed in the tube K may be conducted into a kettle or any culinary vessel placed on the stove, or through pipe bent in any convenient form and placed on top of the stove, upon which cooking vessels may be placed, thus increasing the baking powers of the stove.

It will also be observed that in the bottom of the stove on the inside of each side oven and in the ends of the stove are placed pieces of mica; also, in one of the doors or covers of the side ovens. The advantage of the mica or any transparent material is to diffuse light through the room and enable the party using the stove to see the flame of the lamp, and be enabled to regulate it and to observe the progress of the baking within without the necessity of removing the covers.

P shows an oven placed upon the top of the stove.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is--

1. The use or employment of the mica in the sides, bottom, and top of the ovens, for the purpose specified.

2. In combination with the stove, constructed as described, the use or employment of the reservoir J and tubing K, for the purpose specified.

3. The flue B, constructed as shown, for the purpose specified.

4. The use or employment of the dampers E, in combination with the flue B, for the purposes set forth.

5. Combining with a stove provided with the side ovens, C, the flue B, for the purpose specified.

JOSHUA E. AMBROSE.

In presence of—
A. SIDNEY DOANE,
JOHN HENRY.