

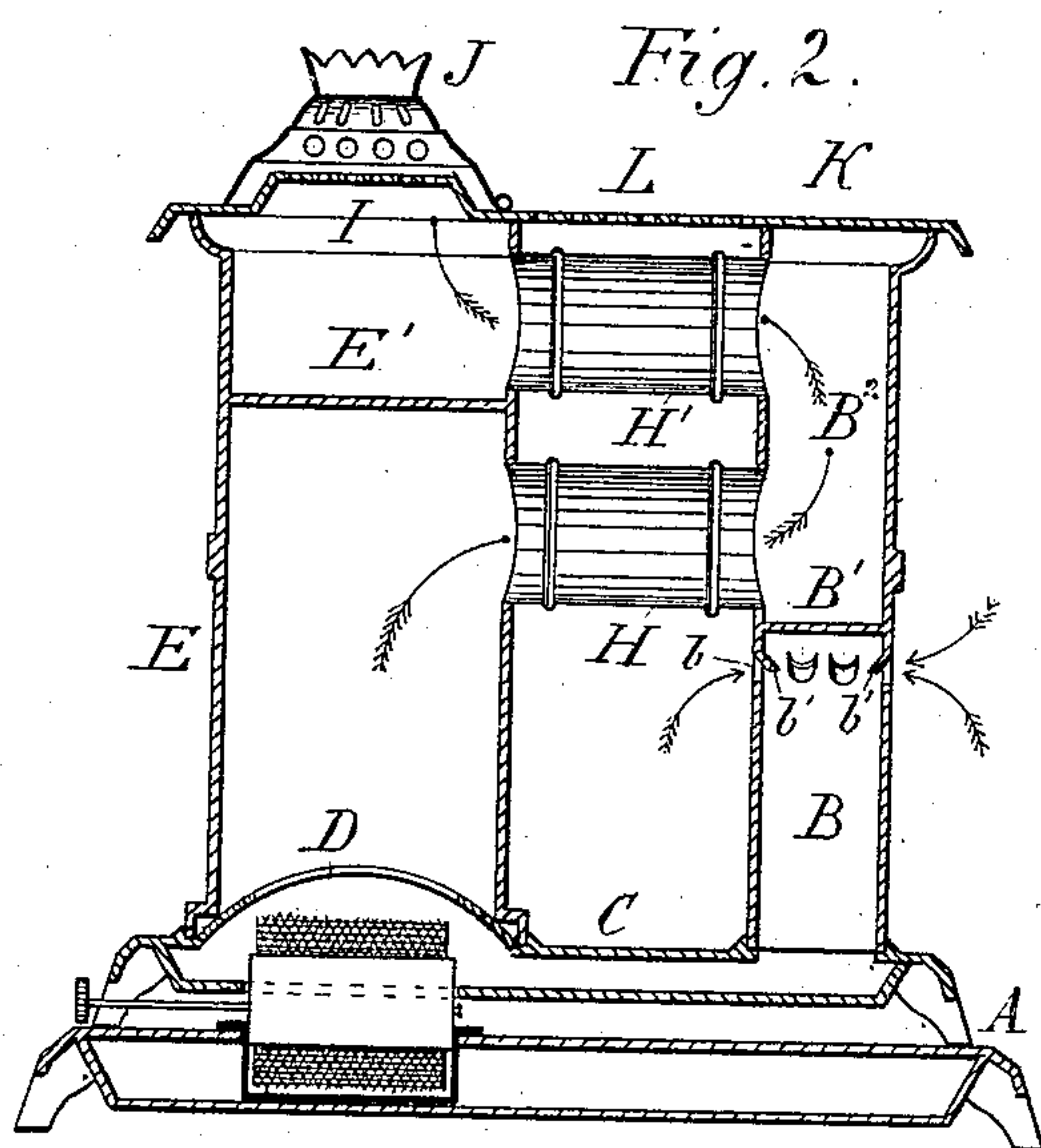
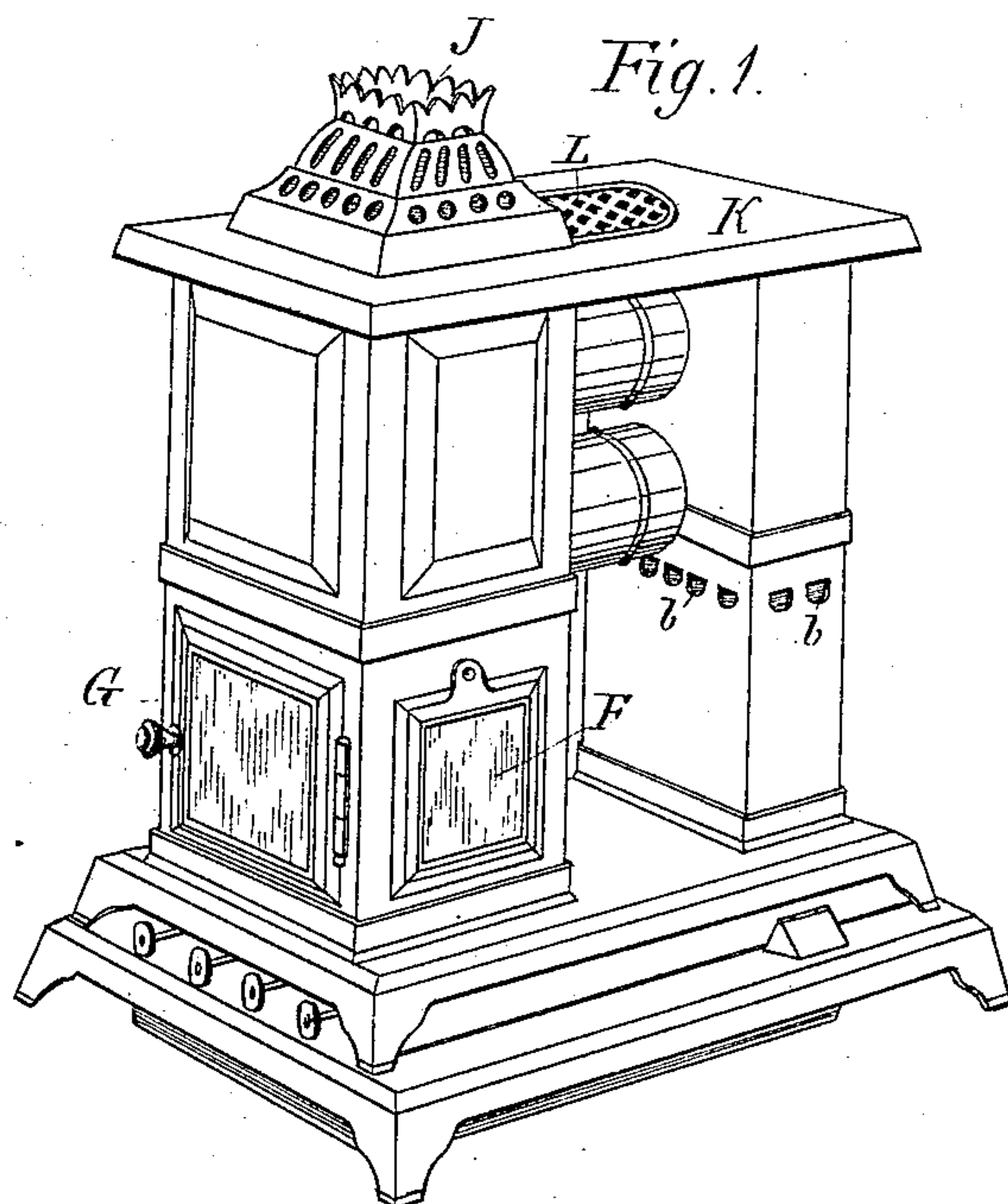
(No Model.)

L. F. BETTS.

STOVE.

No. 326,386.

Patented Sept. 15, 1885.



Witnesses =

Wm. A. Lowe
Edward Ball

Inventor =
L. F. Betts.
By, A. M. Pierce.
Atty.

UNITED STATES PATENT OFFICE.

LEWIS F. BETTS, OF NEW YORK, N. Y., ASSIGNOR TO JOHN H. IRWIN, OF MORTON, PENNSYLVANIA, AND ROBERT E. DIETZ, OF NEW YORK, N. Y.

STOVE.

SPECIFICATION forming part of Letters Patent No. 326,386, dated September 15, 1885.

Application filed April 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, LEWIS F. BETTS, a citizen of the United States, and a resident of New York city, in the county of New York
5 and State of New York, have invented certain new and useful Improvements in Stoves, of which the following is a specification.

My invention relates especially to stoves employed for heating purposes, wherein hydrocarbon oil or gas is used as fuel, and has for its object the provision of a device cheap and simple to construct, means being employed for directing the flow of fresh air to support combustion, and to compel the products of combustion to part with substantially
15 the greater part of their heat-units before escaping from the stove into the open atmosphere.

The invention consists in the peculiar construction and arrangement of the structure of the stove above the oil-pot, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my improved stove, and Fig. 2 is a vertical longitudinal sectional view thereof.

Like letters of reference wherever they occur indicate corresponding parts in both figures.

30 The base A of the stove is constructed in the manner well known in stoves of the "tubular" type usually employed for cooking purposes. The fresh air to support combustion is supplied to conduit B through perforations
35 *b* in the wall thereof. Over each of these perforations is located an inwardly and downwardly projecting tongue, *b'*, plainly illustrated in Fig. 2. Currents of air, passing through the perforations *b* and striking the
40 tongues *b'*, are directed downward into conduit B through the air-chamber C to the burners D.

The above-described air-injecting device is cheap and simple to construct and effective in
45 operation.

Located above the draft-openings in conduit B is a partition, B', which separates the fresh air from the products of combustion.

E is the combustion-chamber, provided
50 with glazed panels F and door G, arranged in such a manner as to give free egress for the light from the flame.

E' is a horizontal partition located in the combustion-chamber a short distance below the top thereof.

H is a tube, flue, or pipe leading from the combustion-chamber below partition E to the vertical conduit B², above fresh-air conduit B, and H' is a similar tube leading from conduit B² to the space above the combustion-
60 chamber E.

I is the outlet for the products of combustion, surmounted by the removable vase J. When the vase is removed, a cooking-utensil may be placed above the outlet for products
65 of combustion, if desired.

This construction of heater or radiator may be used upon a cooking-stove base by simply lifting the portion of the structure above the air-chamber therefrom and substituting my
70 device therefor.

Having now fully described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. The combination, with a stove-base of the character herein specified, of a radiator or heater provided with a combustion-chamber, a fresh-air conduit in which the air is deflected downward, a passage connecting said conduit with the combustion-chamber,
80 a vertical conduit opposite to the combustion-chamber and communicating therewith through a tube, and a chamber above the combustion-chamber communicating with said vertical conduit through a tube, and provided
85 with an exit, substantially as described.

2. A radiator or heater consisting of a base, A, fresh-air conduit B, the walls thereof being provided with perforations *b*, over which are located inwardly-projecting tongues *b'*,
90 air-chamber C, combustion-chamber E, tubes H and H', conduit B², chamber E', and outlet I for products of combustion, the whole combined and arranged to operate substantially as shown and described.

Signed at New York, in the county of New York and State of New York, this 10th day of December, A. D. 1883.

LEWIS F. BETTS.

Witnesses:

EUGENE N. ELIOT,
A. M. PIERCE.