

(No Model.)

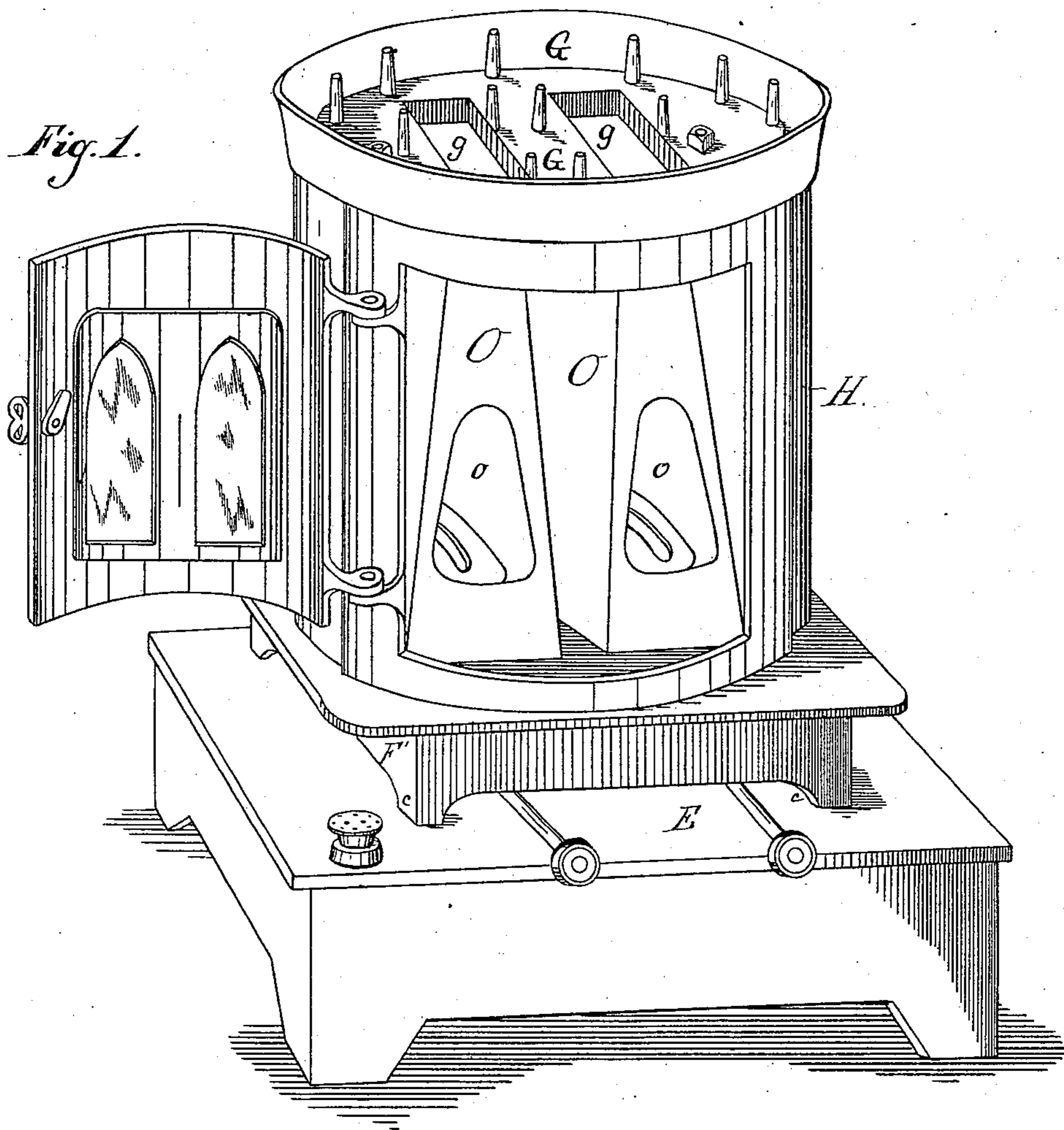
2 Sheets—Sheet 1.

I. F. KEARNS.

OIL STOVE.

No. 284,639.

Patented Sept. 11, 1883.



*Witnesses:*  
*J. Everett Brown*  
*A. M. Munday.*

*Inventor:*  
*Isaac F. Kearns:*  
*per Munday, Evarts & Adeock*  
*his Attorneys:*

(No Model.)

2 Sheets—Sheet 2.

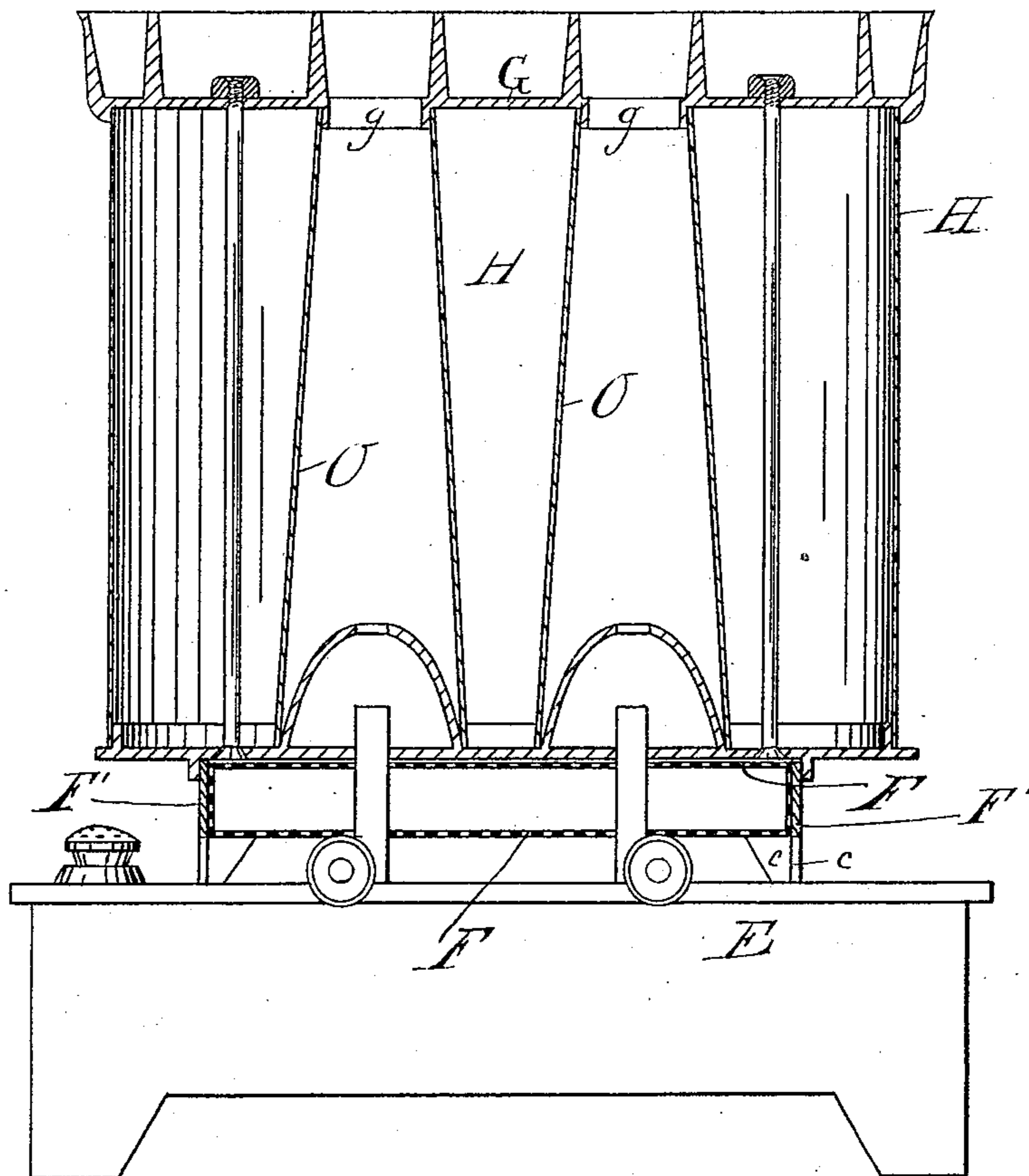
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*Fig. 2.*



*Witnesses:*  
*J. Everett Brown*  
*A. Munday.*

*per Munday, Evarts & Adcock*

*Inventor:*  
*Isaac F. Kearns:*

*his Attorneys:*

# UNITED STATES PATENT OFFICE.

ISAAC F. KEARNS, OF CHICAGO, ILLINOIS.

## OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 284,639, dated September 11, 1883.

Application filed February 2, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC F. KEARNS, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Oil-Stoves, of which the following is a specification.

This invention, which relates to the construction of oil-stoves, is designed to cheapen their manufacture and to increase their efficiency for certain uses to which they are usually put; and the invention consists in the novel features hereinafter particularly set forth.

In the drawings accompanying this specification, and forming a part thereof, Figure 1 is a view in perspective of my improved stove, and Fig. 2 is a central vertical section of the same.

The first feature of my invention consists in the combination, in an oil-stove, of a top, G, having no air-openings therethrough except the chimney-openings *g*, an imperforate surrounding or main drum, H, and burner-chimneys O, having unclosed window-openings *o*. This enables me to dispense with the mica covering usually provided for the openings *o* in the front of the chimneys, the spaces within the drum from which said windows open being rendered by my construction a dead-space, and all escape for upward currents, except through the chimneys, being shut off. My construction also concentrates all the heat which the burners generate at the burner-openings, where it will be effective to the best degree in its work upon the article or vessel being heated.

A further feature of my stove is in the construction of what is known as the "air-box."

These boxes have been made separate and removable from other parts of the stove, and of perforate metal at the top and sides only. I retain the removable feature; but instead of providing the box with an imperforate bottom, I substitute therefor a perforate one, and compel all the air to pass through it. My improved box therefore consists of two parallel but separated horizontal perforated plates, F F, and surrounding sides of close or imperforate cast metal F', the latter having supports or legs *c* resting upon the oil-reservoir E at the corners, as shown, so as to give entrance to the air-supply below said sides. The horizontal plates are provided with openings to admit the wick-tubes in the usual manner. This air-box is very much less expensive than those now used, and is equally as good in operation, as it keeps the reservoir cool and gives the burners an adequate supply of air.

I disclaim the construction shown in Patents Nos. 211,359 and 235,228.

I claim—

1. The combination, in an oil-stove, of a top, the only openings wherein are over the chimneys, a close surrounding drum, and chimneys having unclosed front windows, substantially as set forth.

2. In an oil-stove, the combination, with the burners and the oil-reservoir, of a separate and removable air-strainer box, consisting of two horizontal separated perforated plates and solid or imperforate side walls having legs *c* cast thereon, substantially as specified.

ISAAC F. KEARNS.

Witnesses:

H. M. MUNDAY,

T. EVERETT BROWN.