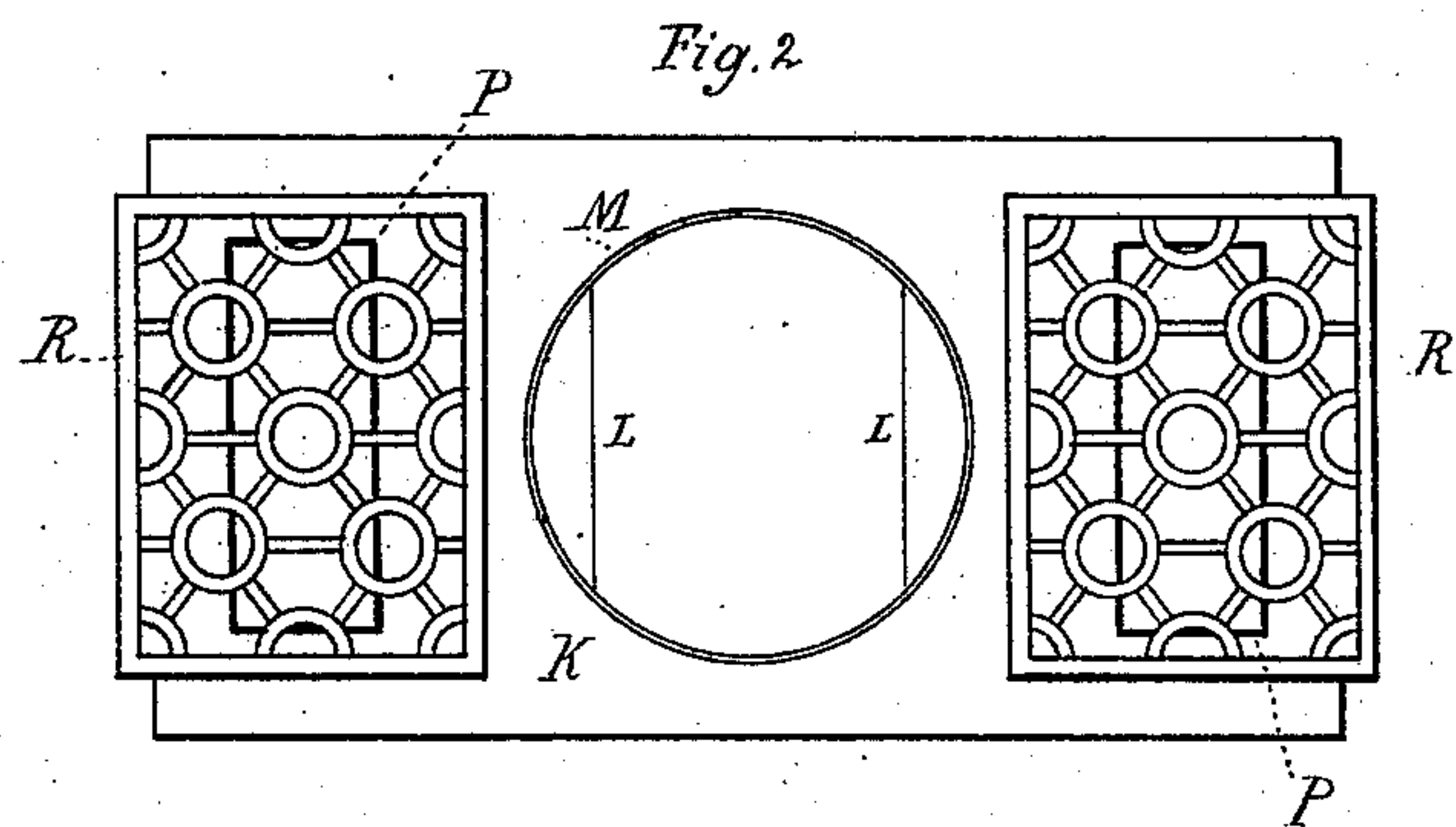
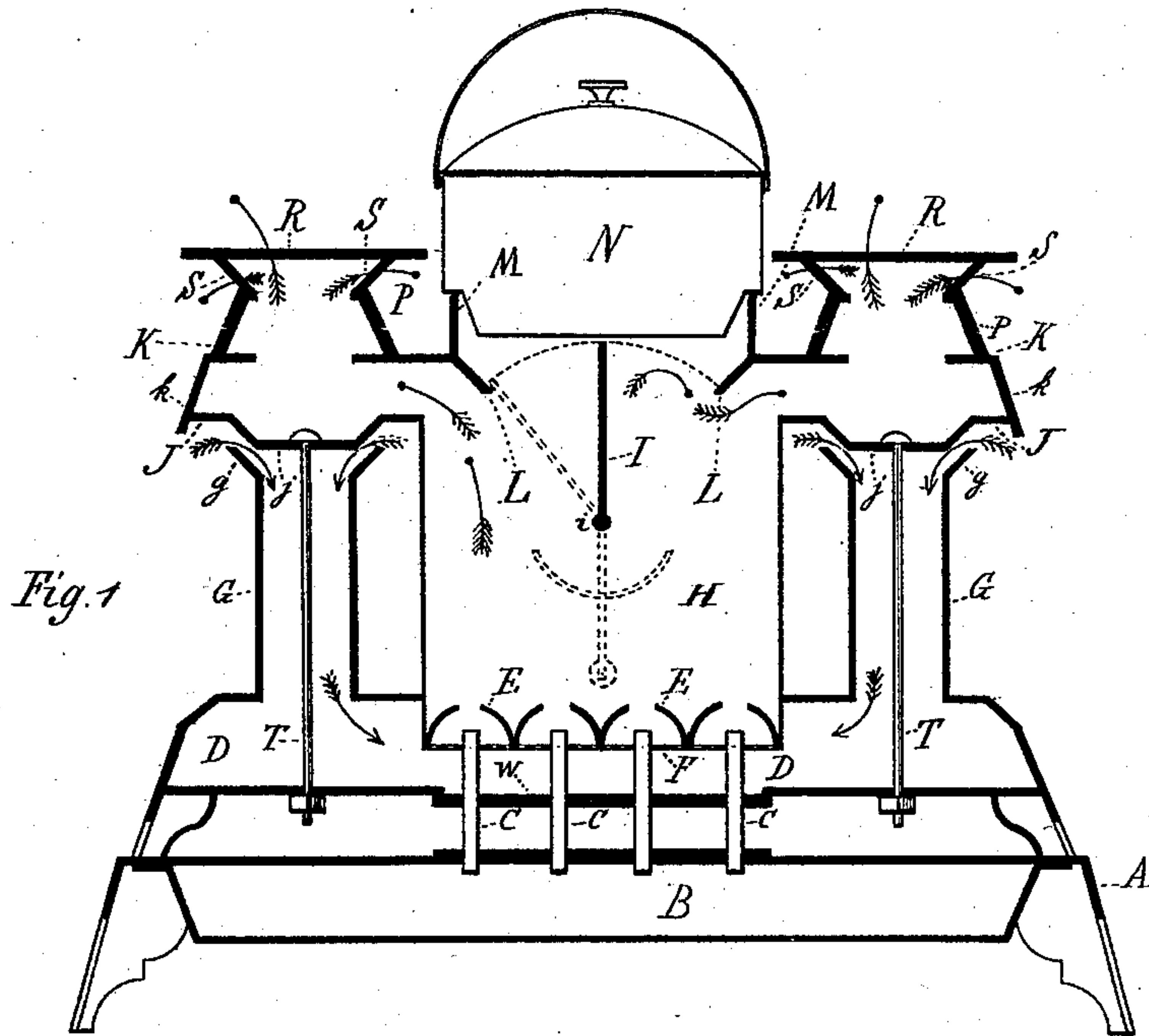


(No Model.)

J. H. IRWIN.
OIL OR GAS STOVE.

No. 368,950.

Patented Aug. 30, 1887.



Witnesses =
Wm. A. Lane
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UNITED STATES PATENT OFFICE.

JOHN H. IRWIN, OF MORTON, PENNSYLVANIA, ASSIGNOR TO THE R. E. DIETZ COMPANY, OF NEW YORK, N. Y.

OIL OR GAS STOVE.

SPECIFICATION forming part of Letters Patent No. 368,950, dated August 30, 1887.

Application filed March 11, 1882. Serial No. 54,946. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. IRWIN, of Morton, county of Delaware, and State of Pennsylvania, have invented certain new and useful Improvements in Oil or Gas Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates especially to stoves employed for domestic purposes, wherein hydrocarbon oils or gas is used as fuel, and has for its object the production of a device wherein the heat may be concentrated upon a cooking utensil located directly above the combustion-chamber, or thrown to either side thereof, as occasion may require; and it consists, essentially, in locating a movable deflecting-plate within the combustion-chamber and in providing two escape-conduits for the products of combustion upon each side of said combustion-chamber; and my invention involves certain novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described, and then pointed out in the claims.

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

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

A is the base of the stove, supporting oil-pot B.

C are the wick-tubes extending from the oil-pot to and through air-chamber D to the under side of the slotted burner-cones E.

F is a perforated plate or wire-gauze surrounding the wick-tubes. For convenience in placing the upper portion of the stove in position upon the base or removing it therefrom, a large opening is left in the air-chamber below the burner-cones. A plate, W, surrounds the wick-tubes, and being affixed thereto at the requisite point, completely closes the opening in the air-chamber when the parts are in place. By this arrangement particular care is unnecessary, and there is no danger of bend-

ing the wick-tubes when the top part of the stove is moved for any purpose.

G are conduits for fresh air, located at each end of the air-chamber D. The upper extremities of said conduits are open and provided with deflecting-plates *g* therearound.

H is the combustion-chamber. Located in said chamber is a movable deflecting-plate, I, hinged at *i* and operated from the exterior of the chamber.

J is a plate extending from the combustion-chamber over the fresh-air conduits G. Directly above conduits G are depressions *j* in plate J, extending downward to the open mouth of each conduit in such a manner as to present a surface which deflects impinging currents of air downward into the conduits.

K is the top of the stove, having depending edges *k*, which engage with and support the stove-top above plate J, as shown. Within the combustion-chamber, and extending downward at an angle, are plates L, forming a part of or attached to top plate, K. Above the combustion-chamber, and surrounded by a collar, M, is located an opening or utensil-hole, upon which a kettle, N, or any cooking utensil, will find a ready support.

Above the depressions *j*, upon the top plate of the stove, are raised collars P, adapted and arranged to engage with and support the removable open-work plates R, said plates being provided with suitable legs, S, which rest upon collars P. T are bolts securing the upper portion of the device together when assembled for use.

When constructed and arranged in accordance with the foregoing description, the operation of my improved stove is as follows: If it is desired to concentrate the heat upon the cooking utensil above the combustion-chamber, deflecting-plate I is placed in a vertical position, as shown in Fig. 1, a small part of the heat being caught by plates L, extending over the burners at the right and left. If only a portion of the heat generated by the combustion of the fuel is required for this purpose, or if it is desired to convey the heat to the right or left of the combustion-chamber, this may be readily accomplished by placing plate I at the

requisite angle. Plates R are so constructed and arranged that the products of combustion will pass directly upward therethrough when not prevented by utensils placed upon the plates. When so obstructed, the products will pass between the supporting-legs of the plate. Currents of air striking collar P upon the top of the stove will be deflected upward, educing a rapid flow of the heated products against the utensil placed upon the plate. When it is desired to use an oven upon the stove, plates R may be removed and the oven placed in position, and if the stove is used for heating purposes a suitable dome may be placed upon collar M.

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

1. In an oil or gas stove having two or more exits for products of combustion situated beneath the supports for cooking utensils, an oscillating plate located within the combustion-chamber and adapted and arranged to be supported vertically or thrown toward either side, substantially as shown and described.

2. In an oil or gas stove, the combination, with combustion-chamber H, of a movable or oscillating plate, I, and fixed plates L, substantially as shown and described.

3. In an oil or gas stove, the combination, with the flame-space having an opening at top, and having an exit for products of combustion at each side, of plates L, projecting into the

flame-space upon opposite sides thereof, substantially as shown and described.

4. In an oil or gas stove of the character herein specified, two or more outlets for products of combustion located in the top plate of the stove laterally to the flame-space, said outlets being surrounded by collars having an inward inclination, as shown, the tops of said collars supporting removable open-work plates, substantially as set forth.

5. In an oil or gas stove, a movable plate, I, and plates L, located substantially as set forth, and top plate, K, the whole combined and arranged to operate substantially as shown and described.

6. In an oil or gas stove, a movable plate, I, and plates L, located substantially as set forth, and top plate, K, whereon are located collars P and M, substantially as shown and described.

7. Plate I, plates L, top plate, K, whereon are located collars P and M, and removable open-work plates R, supported upon collars P by legs S, the whole combined and arranged to operate substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

JOHN H. IRWIN.

Witnesses:

F. W. HANAFORD,
A. M. PIERCE.