F. MORANDI.

KEROSENE-STOVE.

No. 193,343. Patented July 24, 1877.

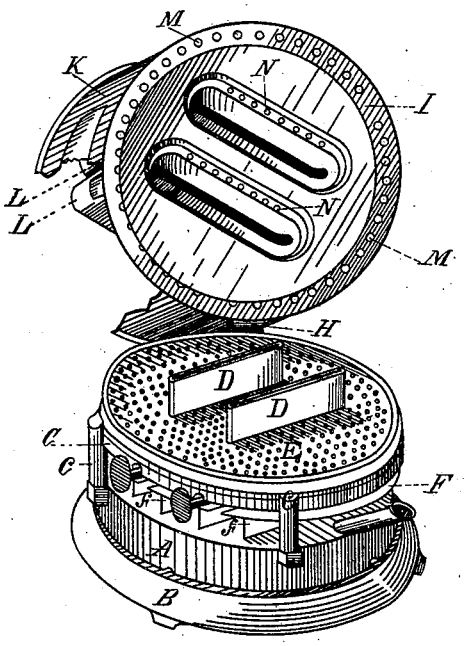

Fig. 1.

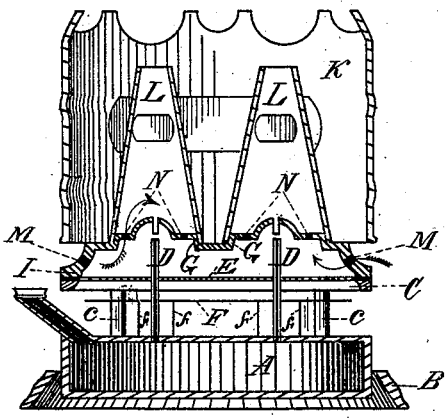

Fig. 2.

Witnesses:

H. E. Womick

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Inventor:

Francis Morandi.

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UNITED STATES PATENT OFFICE.

FRANCIS MORANDI, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN KEROSENE-STOVES.

Specification forming part of Letters Patent No. **193,343**, dated July 24, 1877; application filed May 7, 1877.

To all whom it may concern:

Be it known that I, FRANCIS MORANDI, of Boston, Massachusetts, have invented certain Improvements in Kerosene-Stoves, of which the following is a specification:

The object of my improvements is to simplify and cheapen kerosene-stoves, and at the same time to increase their efficiency, safety, and convenience.

My invention consists in the specific parts and combination of parts set forth in the several claims.

In the drawing, Figure 1 is a perspective view, partly broken away, showing the upper part of the stove turned back upon the hinge. Fig. 2 is a vertical central section of the stove.

A is the oil-reservoir, secured to or formed integral with the base B. C is a rack or spider, resting securely by its legs *c* in sockets of the base or reservoir, so as to be removable therefrom when desired. The wick-tubes D rise from the reservoir through a foraminous plate, E, which is supported circumferentially by the rack C, and centrally by a cross-brace connecting and stiffening the wick-tubes.

About midway between the point of combustion and the top of the reservoir is interposed a deflector or shield, F, formed preferably of tin, and supported by feet *f*, resting loosely upon the top of the reservoir. This deflector is slotted from its outer edge, so that it may be introduced from one side by a horizontal movement, and can rest below the plate E, the cross-brace, and the wick-ratchets.

This arrangement completely protects the tank from radiated heat, and effects such a circulation of air as to cool the wick-tubes and prevent conduction of heat downward, thus adding greatly to the safety of the device and facilitating the cleaning it.

H is a hinge, by which the cone-plate I is connected to the rack C, so that the entire top of the stove may be turned over to expose the wick-tubes for cleaning or trimming the wick. I can thus perform this operation much more accurately than if it were necessary, as in other stoves, to turn up the wick and trim it above the cone, and then turn it down.

The outer case K and the chimneys L are secured permanently to the cone-plate, the former preferably by screws, and the latter by rivets, uniting the sheet metal to the casting. For greater convenience I form a shoulder, G, around the base of each cone, of a shape adapted to receive and fit closely within the lower end of the chimney, as seen in Fig. 2.

The cone-plate is so hinged to the rack as to bring the cones and chimneys centrally over the burners, and a portion of the air which supports combustion rises through the finely-perforated plate E, which, to some extent, protects the flame from gusts of wind, and renders it more steady.

To secure a perfect draft and complete combustion of all vapors, should any rise from the reservoir, I provide a series of perforations, M, around the outer edge of the cone-plate, admitting air beneath that plate, and another series, N, surrounding the cones and within the chimneys. The direction of the air-currents is indicated by the arrows. The copious supply of fresh air thus brought by an inwardly-flowing current, and fed from all sides to the flame as it issues from the cone, adds greatly to its intensity, and to the heating capacity of the stove.

I claim as my invention—

1. The deflector or shield F, slotted laterally from one edge, interposed between the reservoir and flame by a horizontal sliding movement, substantially as set forth.

2. The combination of a supporting-base, an oil-reservoir, and a removable heat-deflector, with an outer case rigidly secured to a cone-plate, and hinged with the cone-plate and chimneys to a rack or base, substantially as set forth.

3. The hinged cone-plate I, having shoulders G surrounding the cones for the reception of the chimneys, and perforated between the chimneys and cones, substantially as and for the purposes set forth.

FRANCIS MORANDI.

Witnesses:

A. H. SPENCER,

C. G. KEYES.