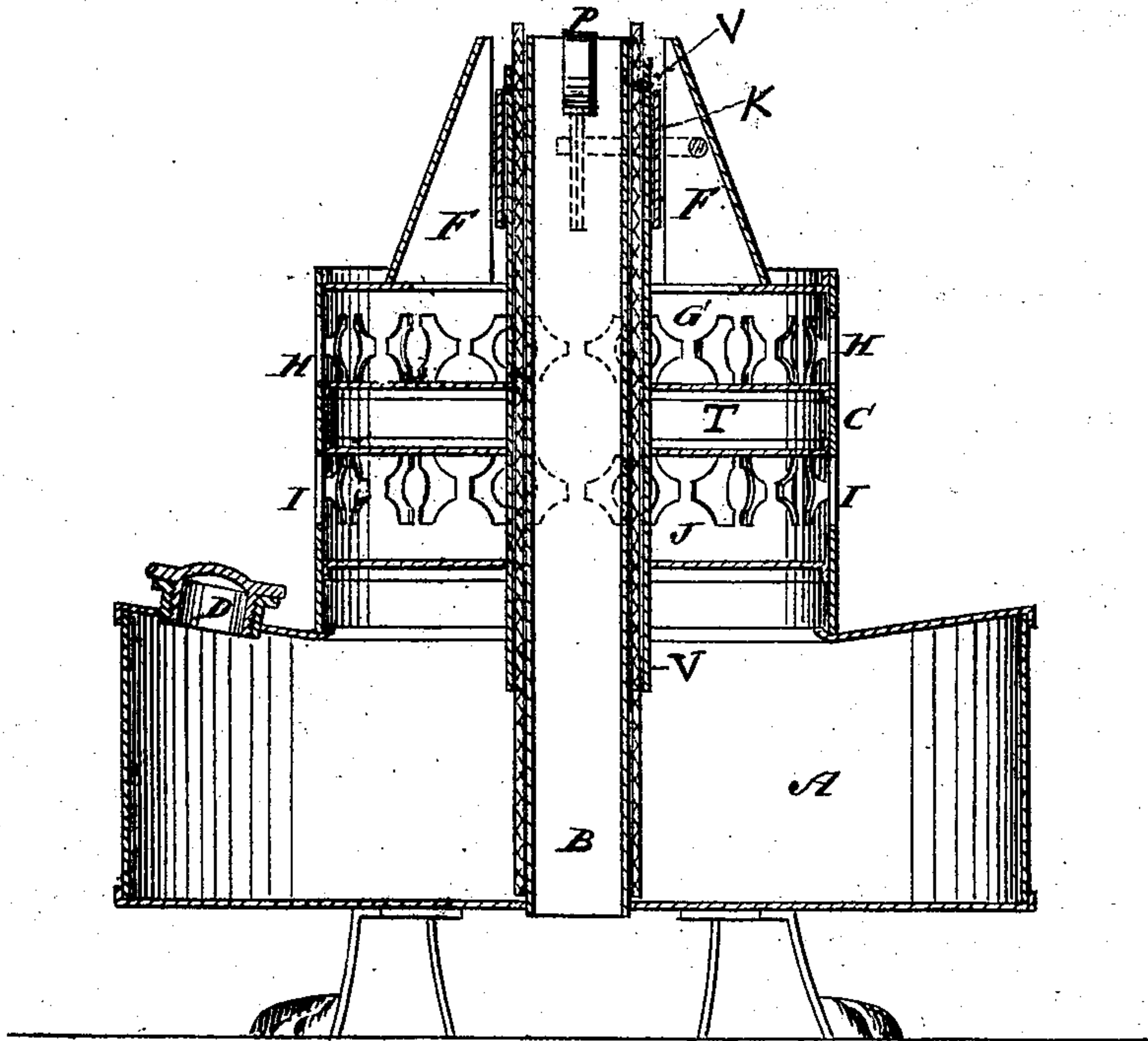


**J. IREDALE.**  
**Lamps for Heating.**

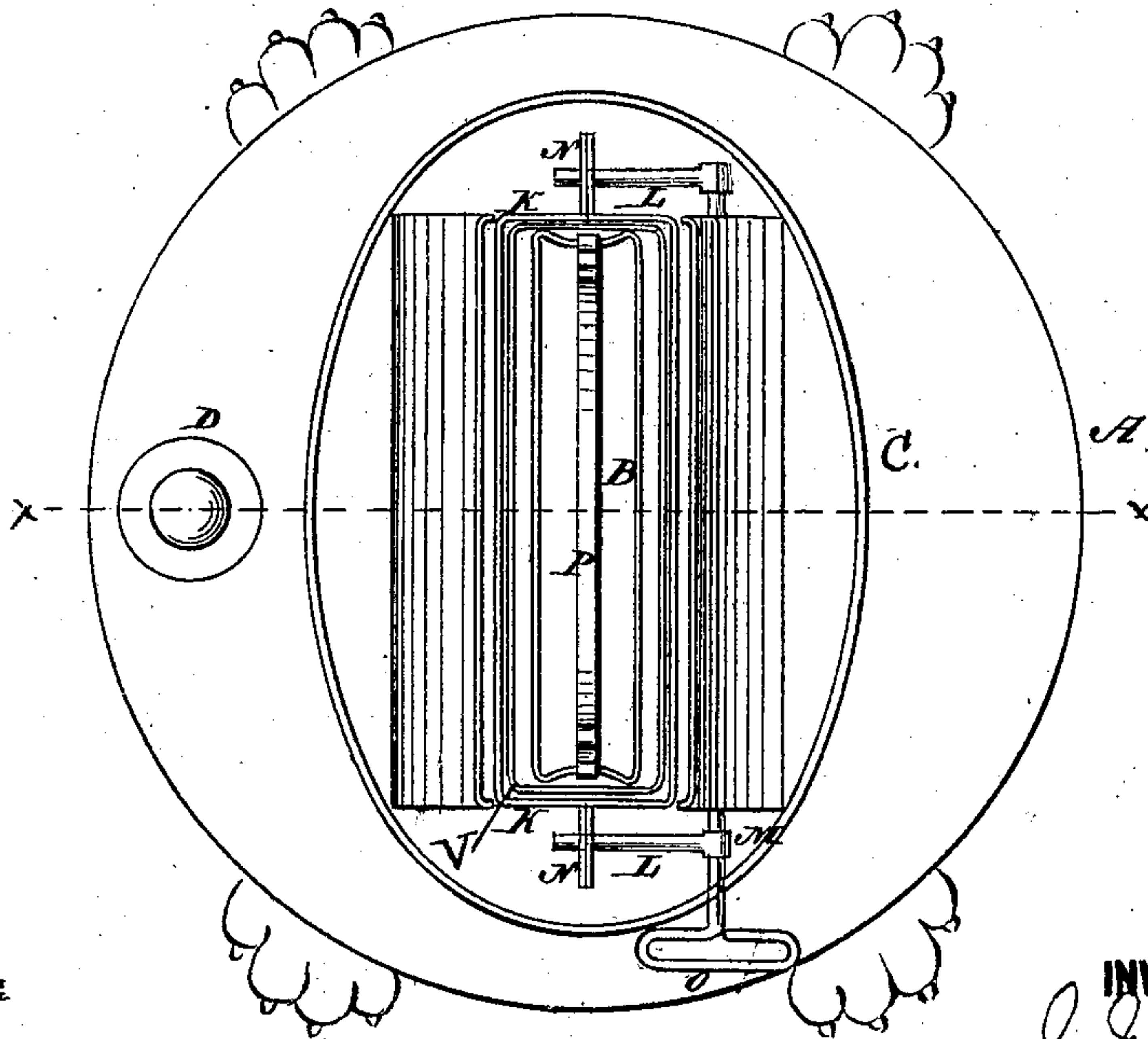
No. 152,115.

Patented June 16, 1874.

*Fig. 1.*



*Fig. 2.*



WITNESSES:

*E. Wolff.*  
*Chidwick*

INVENTOR:

BY

*J. Iredale*  
*Mumford*

ATTORNEYS

# UNITED STATES PATENT OFFICE.

JAMES IREDALE, OF TORONTO, CANADA.

## IMPROVEMENT IN LAMPS FOR HEATING.

Specification forming part of Letters Patent No. **152,115**, dated June 16, 1874; application filed April 25, 1874.

*To all whom it may concern:*

Be it known that I, JAMES IREDALE, of Toronto, in the Province of Ontario and Dominion of Canada, have invented a new and useful Improvement in Oil-Burning Lamps for Heating, of which the following is a specification:

My invention is an improvement in the class of lamps having a central air-tube; and relates to a movable frame or tube, and the device for operating it, by which the top or combustion edge of the wick is exposed more or less, as occasion requires, to vary the quantity of light emitted.

Figure 1 is a vertical section of the lamp, taken on the line *x x* of Fig. 2. Fig. 2 is a top view.

Similar letters of reference indicate corresponding parts.

A is the oil reservoir or tank. B represents a flat tube, which extends through and from the bottom of the reservoir to the top of the burner. C is the burner, which rests on top of the reservoir, and is removable therefrom for the insertion of the wicks. The oil is introduced through the aperture D, which is closed by a screw-cap in the usual manner. The wick-tubes are formed by spaces between the air-tube and the interior of the burner, the interior of the burner being a tube which slips over the air-tube, leaving a space on each side for a wick, as seen in the drawing. F F represent air-passages outside the wick. These

passages are in communication with the open chamber G, which receives air from a series of orifices, H, which surround the burner. The burner has another tier of orifices, I, by which air is admitted into the chamber J, which serves to protect the oil in the reservoir from the heat of the flame. The passages F F and the air-tube B discharge currents of air in contact with the top of each wick, thereby supplying an amount of oxygen to the carbon of the wick, which gives a clear, smokeless flame from kerosene or other mineral oils. K is an adjustable frame outside the wicks for regulating the flame. This frame is raised and lowered by means of the arms L, on the shaft M. The arms enter holes in the flanges N N of the frame, and the shaft is turned by means of the hand or thumb piece O. P is a strip or bar of metal arranged diametrically in the mouth or top of the air-tube B, for the purpose of dividing the air-current, and diverting it laterally to the wicks.

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

The frame or tube K, having flanges N, and the shaft M, having arms L and thumb-piece O, in combination with the wick-tube, as shown and described.

JAMES IREDALE.

Witnesses:

LA RUE PECK,  
WILLIAM MYERS.