

J. W. COLE.

LAMP-STOVE.

No. 175,932.

Patented April 11, 1876.

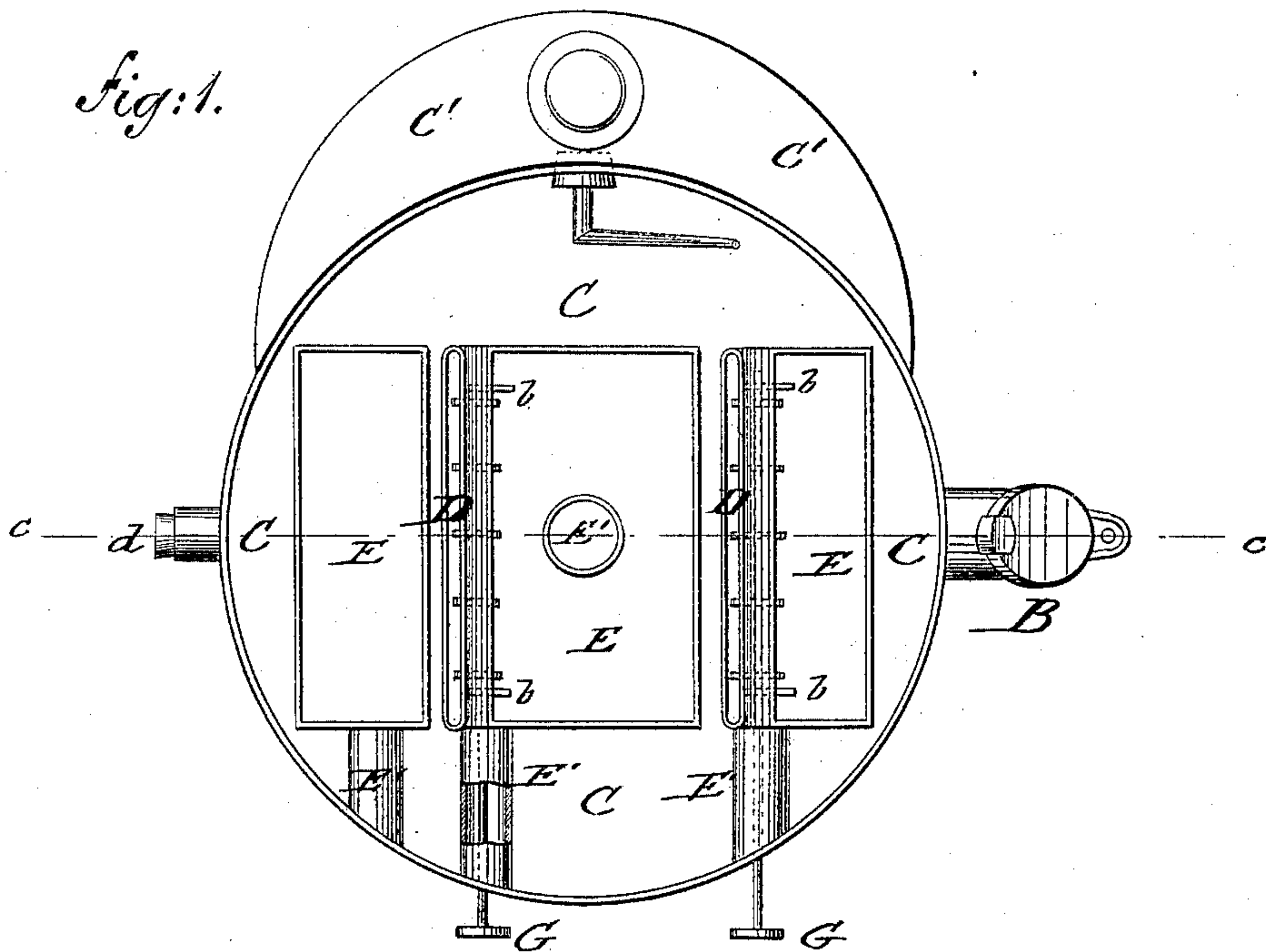
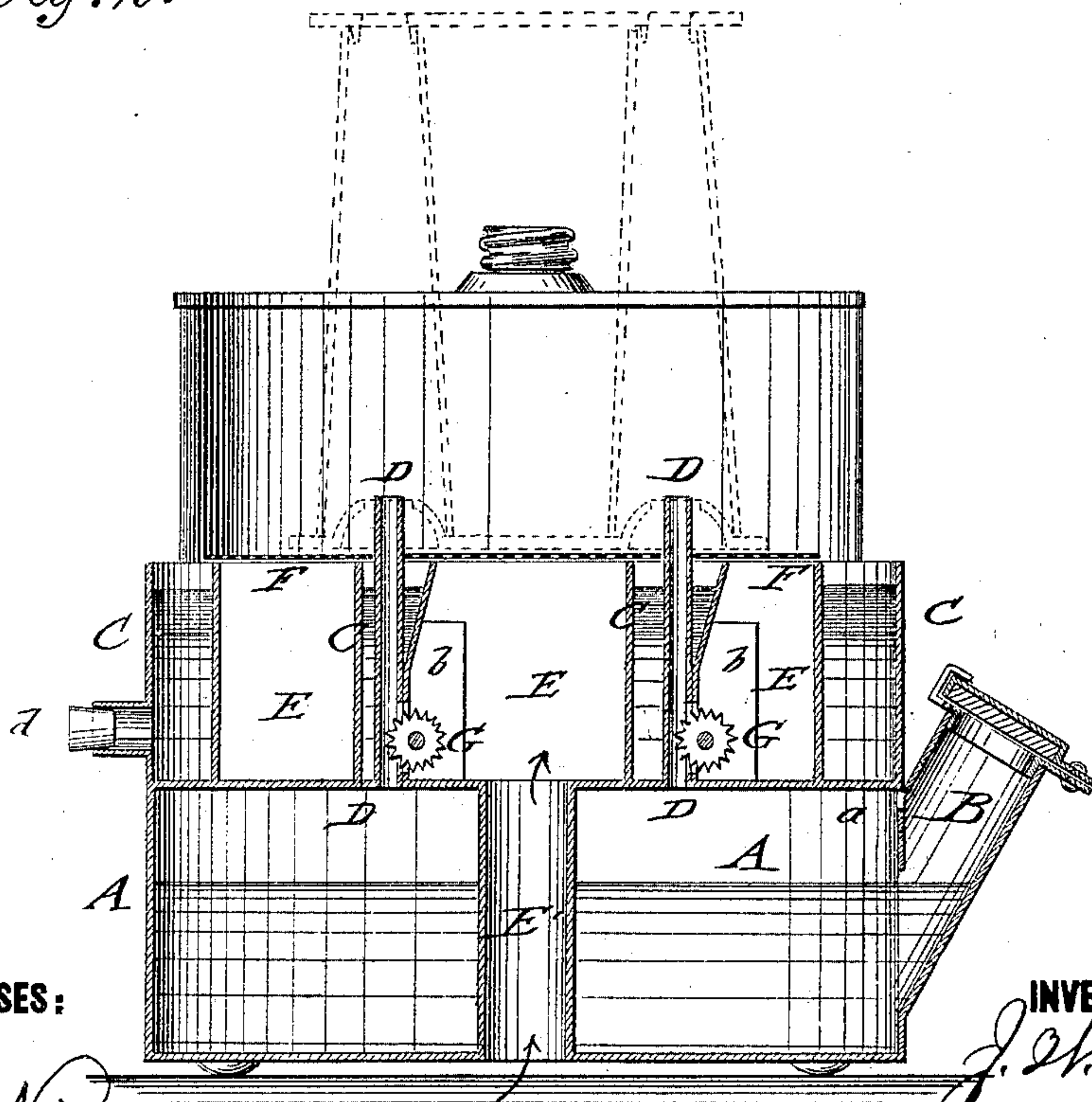


Fig: 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN WARD COLE, OF BRAMPTON, CANADA.

IMPROVEMENT IN LAMP-STOVES.

Specification forming part of Letters Patent No. **175,932**, dated April 11, 1876; application filed March 6, 1876.

To all whom it may concern :

Be it known that I, JOHN WARD COLE, of Brampton, Peel, in the Province of Ontario and Dominion of Canada, have invented a new and Improved Lamp-Stove, of which the following is a specification:

Figure 1 represents a top view, and Fig. 2 a vertical transverse section, of my improved lamp-stove on line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to improvements in cooking-lamps, by which the heating capacity of the same is increased and the lamp easily kept clean and in perfect working order.

The invention consists mainly of the water-compartments for cooling the wick-tubes arranged above the oil-receptacle, and provided with air-chambers between and at each side of the wick-tubes, for the increased supply of air to the flames. A self-feeding water reservoir or tank keeps up the supply of water around the wick-tubes.

A water receptacle or compartment, C, of considerable depth, is arranged immediately above the oil-reservoir A, for cooling the wick-tubes D, that extend from the oil-reservoir in upward direction through the water-compartment to suitable height above the same. The water-compartment C is supplied with water to cool the wick-tubes, from a water-tank, C', of suitable size, that is attached to the side of the water-compartment, and arranged with a small exit-pipe in such a manner that the water is kept in the same automatically at a certain level around the wick-tubes, supplying the water evaporated by the heating of the same, and keeping, thereby, the wick-tubes cool for a longer period without the necessity of continually refilling the water-compartment.

In the water-compartment are arranged at the outer sides, and intervening between the wick-tubes, open air-chambers E, that are connected, by side and bottom channels or tubes E', with the outer air, the central air-chamber receiving air through a vertical tube passing centrally through the oil-reservoir, while the side air-chambers are supplied

through horizontal side tubes passing through the water-compartment.

A continual supply of fresh air is thus conducted to the wick-tubes, so that a more complete combustion of the oil is obtained, and a greater degree of heat produced in consequence thereof.

The arrangement of the air-chambers in the water-compartment and the free supply of air to both sides of the flame by the air-chambers give the great advantage of allowing the water compartment to be made at considerable depth, so that the more perfect cooling of the wick-tubes is produced by the greater quantity of water therein.

The air-chambers may be made somewhat higher than the walls of the water-compartment, and serve, also, as support for the perforated tin covering-plate F, and for the burners with the chimneys, without requiring bars or other supports across the wick-tubes.

The horizontal air tubes or channels E' admit the arrangement of the spurred wick-lifters G, that turn in supports *b* of the air-chamber, the water-compartment extending immediately above the wick-lifters along the wick-tubes, to keep the parts above the lifters cool, as shown in Fig. 2.

The water may be drawn off from the water-compartment by a corked tube or stop-cock, *d*, near the bottom of the same, to allow the drawing off of the water and replacing it by clean water.

The lamp-stove requires no packing for the wick-tubes, is readily kept clean and in order, and burns by means of the increased supply of air to the flames with greater economy and efficacy.

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

1. A lamp-stove provided with a water-compartment above the oil-receptacle, and air-chambers in the water-compartment at both sides of the wick-tubes, the air-chambers being supplied with air through side and bottom channels or tubes, substantially as described.

2. The air-chambers and horizontal air chan-

nels or tubes, having supports for the wick-lifters, substantially as set forth.

3. The combination of the water-compartments with air-chambers between and at both sides of the wick-tubes, to furnish an increased supply of air to the flames, as specified.

4. The air-chambers, having bottom aper-

tures connecting with air-space below the water-compartments, to increase draft, for the purpose set forth.

JOHN WARD COLE.

Witnesses:

THOS. MORPHY,

T. W. PHILLIPS.