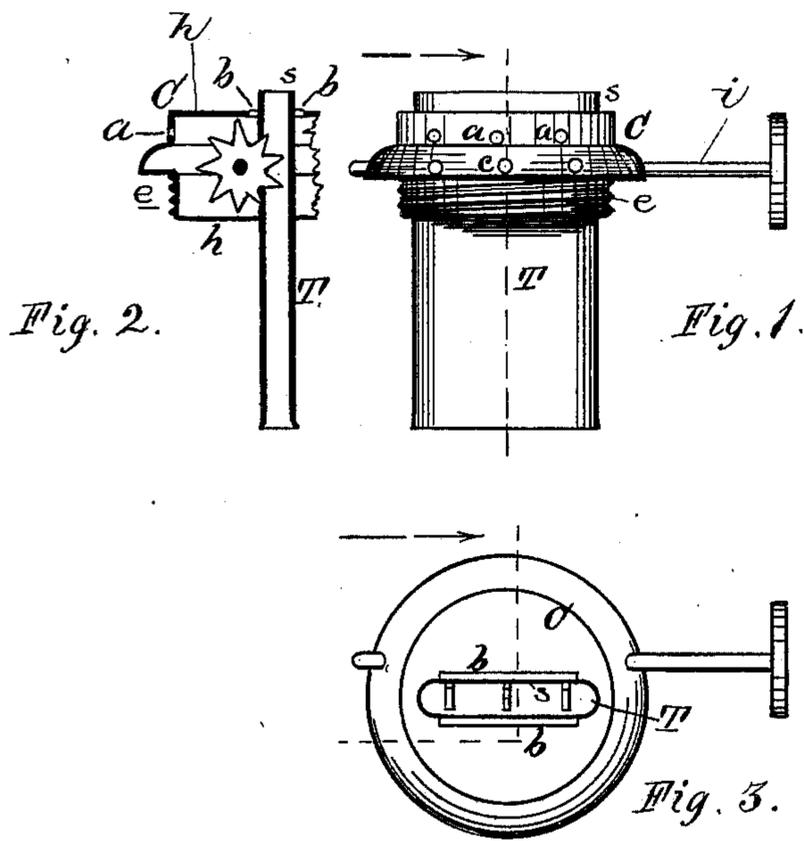


R. B. PAINE.  
Lamp-Burner.

No. 220,253.

Patented Oct. 7, 1879.



Witnesses.

Amy E. White

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Atty

# UNITED STATES PATENT OFFICE.

REUBEN B. PAINE, OF KNOWLESVILLE, NEW YORK.

## IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **220,253**, dated October 7, 1879; application filed July 1, 1878.

*To all whom it may concern:*

Be it known that I, REUBEN B. PAINE, of Knowlesville, in the county of Orleans and State of New York, have invented certain new and useful Improvements in Lamp-Burners; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention is a burner constructed, as described hereinafter, to insure the upward flow of currents of air on opposite sides of the flame, spreading and maintaining the steadiness of the latter without liability of the air-openings becoming clogged up.

In the drawings, forming part of this specification, Fig. 1 is a side view of the improved burner; Fig. 2, a section, and Fig. 3 a plan.

The burner consists of the metal case C, threaded to fit the lamp-socket, the wick-tube T, and wick-raising pinions *i* arranged between the top *h'* and bottom *h* of the case. The wick-tube extends a short distance above the top of the case, and in said top, at opposite sides of the tube, are two narrow slots or openings, *b* *b*, nearly equaling in length the width of the wick-tube, and in the rim of the casing are air-openings *a* *c*. The air passing into the openings *a* *c* will take up the vapor which escapes from the slits in the tube T, through which the wick-raising wheels pass, and, charged with these vapors, will rise in parallel streams through the slots *b* and increase the combustion in the flame, and will tend to spread the latter, and impart increased steadiness thereto.

I am aware that parallel tubes have been

used in connection with a dome having a flat top, with a central oblong opening longer than the breadth of the tubes.

I am also aware that side openings have been used in connection with wick-tubes projecting to a considerable extent above the top of the burner. This permits conflicting currents to disturb those passing up through the side openings. By making the tube extend only about its own thickness above the top the lodgment of particles in the side openings is prevented, while the side currents meet the flame before they can be deflected. Such construction is objectionable, as the air passes up at the edges of the tubes, thereby disturbing the effect of the side currents.

In my improved burner the lodging of any particles on the end of the wick-tube which projects above the openings will not clog the latter. There are no currents at the ends to diminish the width of the flame, nor is there any conflict with the upward flow and lateral spread of the currents through the openings *b*.

I claim—

The combination, in a no-chimney burner, of the case C, having a flat imperforate top and peripheral openings, a wick-tube extending through, and less than its own thickness, above said top, and parallel slots in the top, at the sides, and extending nearly to the ends of the tube, as and for the purpose set forth.

REUBEN B. PAINE.

Witnesses:

JAMES L. PAINE,

JOHN O. CONNELL, Jr.