

L. J. ATWOOD.
Lamp-Burners.

No. 138,601.

Patented May 6, 1873.

Fig. 1.

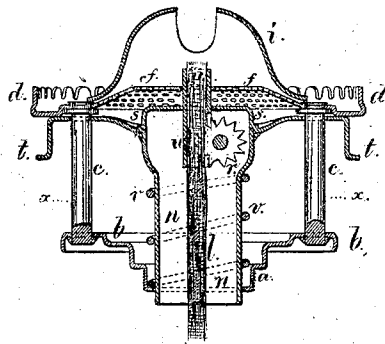


Fig. 2.

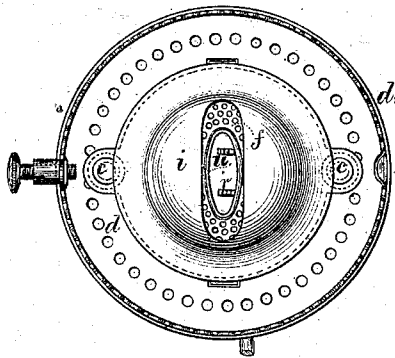
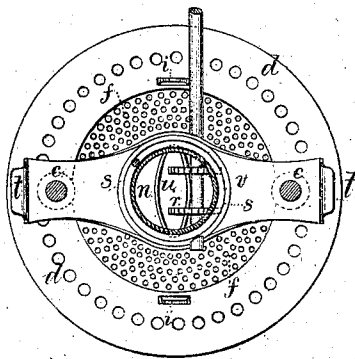


Fig. 3.



Witnesses

Chas. H. Smith
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Inventor

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att'y.

UNITED STATES PATENT OFFICE

LEWIS J. ATWOOD, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE
PLUME & ATWOOD MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **138,601**, dated May 6, 1873; application filed
February 24, 1873.

To all whom it may concern:

Be it known that I, LEWIS J. ATWOOD, of Waterbury, in the State of Connecticut, have invented an Improvement in Lamps, of which the following is a specification:

A lamp has been made in which the chimney is sustained in an elevated position, and the wick-tube has been movable vertically so as to be drawn down for trimming or lighting.

My present invention relates to this general class of burners; and said invention consists in a vapor-chamber rising above the screw attachment to the reservoir, in which vapor-chamber is the wick-raising mechanism, and at the top of the chamber is a short tube for a flat wick. The vapor-chamber and wick-tube are made to slide vertically, and a spring is used to keep them up in place, but allow of the parts being drawn down for trimming or lighting the wick. An elevated air-distributor and removable deflector are employed, and the chimney is received in a holder at the edge of the air-distributor.

By making a vapor-chamber below the short wick-tube, and above the screw attachment to the reservoir, the wick does not become so highly heated as heretofore usual, and any vapors generated in the lamp are free to escape through the short wick-tube directly into the flame. I also make the short wick-tube elliptical instead of flat at the sides, so as to give ample space for vapors to pass up at the sides of the wick.

In the drawing, Figure 1 is a vertical section of the lamp-burner complete. Fig. 2 is a plan of the same; and Fig. 3 is an inverted sectional plan at the line *x x*.

The screw *a* is of ordinary character for securing the burner to the reservoir. Around this is a plate or arms, *b*, from which the vertical guide-columns *c c* rise and carry at their upper ends the chimney-holder *d*, that is provided with clamps for a lip-chimney, or springs for a slip-chimney, as desired. The

perforated air-distributor *f* is also supported by these columns *c*, and this air-distributor is part of the metal of the chimney-holder, or connected thereto, and *i* is a removable cone or deflector above the air-distributor, held in place by tongues that pass through holes in the edges of the air-distributor. The vapor-chamber, through which the wick *l* passes, is made of a cylindrical or polygonal tube, *n*, that passes through the screw *a*, and fits the metal thereof, but is free to slide vertically. The upper end of this tube *n* forms the ratchet-case, in which are the wick-raisers *r*. The ratchet-cap *s* extends to the columns *c*, upon which the arms thereof slide freely when the finger and thumb are applied to the ends *t* of the arms to draw the parts down. *u* is the short wick-tube, and *v* is a spring to raise the wick-tube, vapor-chamber, and arms. This spring *v* passes down within the screw *a*, and the ratchet-case descends into the recessed upper portion of the plate *b*, when the wick-tube is drawn down for trimming and lighting.

A lamp constructed in this manner is very strong and convenient, as the chimney does not require to be removed in trimming or lighting, and there is no risk of accumulation of gases in the reservoir.

I claim as my invention—

1. A vapor-chamber *n*, rising above the burner-screw *a*, and in which the flat wick hangs freely, in combination with a wick-tube, *u*, at the top of the vapor-chamber *n*, substantially as and for the purposes set forth.

2. The vapor-chamber *n*, sliding vertically through the burner-screw *a*, and provided with the ratchet-case, wick-raisers, and wick-tube, substantially as specified.

Signed by me this 18th day of February, 1873.

L. J. ATWOOD.

Witnesses:

ISRAEL HOLMES,
JOHN C. BOOTH.