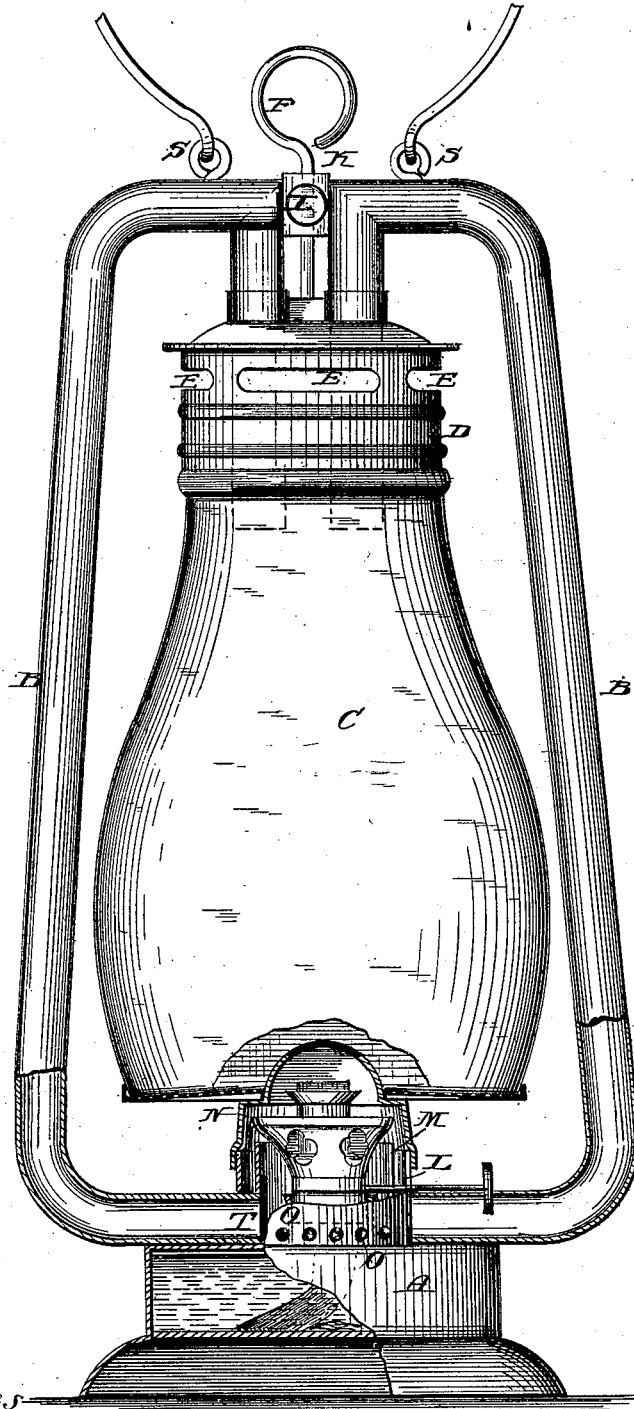


J. A. COWLES.
Lanterns.

No. 207,715.

Patented Sept. 3, 1878.



Witnesses
Alex. G. Dieterich
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UNITED STATES PATENT OFFICE.

JAMES A. COWLES, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. **207,715**, dated September 3, 1878; application filed August 9, 1878.

To all whom it may concern:

Be it known that I, JAMES A. COWLES, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lanterns, of which the following is a specification:

The nature and object of this invention are to construct a lantern in such a way as that the air which supports the combustion is supplied from two sources, and enters the burner through pipes leading from above the flame, and also through openings in the outer air-chamber around the burner; and it further consists in a novel arrangement for holding the globe in position.

A is the oil-pot; B B, the pipes leading from the inner air-chamber above the oil-pot to a convenient distance above the globe, when they turn and pass down through the cap D. The air-chamber above the oil-pot and surrounding the burner is made in two divisions, an inner and an outer chamber, the wall L forming the outer chamber, and the wall M, located within the outer wall, L, forms the inner chamber. The cap N of the burner fits down over the outer wall, L. The inner wall, M, extends above the outer wall, L, if desired.

O O are openings through the outer wall, L, only. The lower ends of the pipes B B pass through the outer wall, L, through the outer chamber, into the inner wall, M, and communicate with the inner chamber, as shown at T.

E are openings for ventilation in cap D above the globe C. F is a rod with an eye at its upper end, and passes down through the bearing K, located between and fastened to the two pipes, and at its lower end is fastened to the cap D. I is a set-screw working in the bearing K against the rod F. S S are eyes, to which the bail is attached. I use any ordinary burner that will answer the purpose.

The operation of my invention is as follows: The air is supplied, in part, to the burner through the pipes B B, through the inner chamber, in the ordinary manner, and through the outer chamber through the openings O O in the outer wall. The two chambers made by the walls L and M open into a common space under the cap N of the burner. Thence the air from the two sources is fed onto the burner. The cap D at top of the globe, to which the bar F is attached, is removed or placed in position by turning the set-screw I, and then lowering the rod F or raising it, which also relieves the globe or holds it in position.

The cap D in no manner or form contributes to the amount of air entering the upper ends of the pipes B B.

This is designed as an improvement on my application filed June 25, 1878.

Having thus described my improvements, I desire to secure by Letters Patent—

1. The combination of the outer and inner walls, L and M, forming thereby an outer and an inner air-chamber, with the cap N, fitting over said outer wall, L, substantially as and for the purpose shown.

2. The combination of the two air-chambers formed by the outer and inner walls, L and M, with the pipes B B and openings O O, whereby air is supplied to the burner from two sources, substantially as and for the purpose shown.

3. The combination of the rod F, bearing K, set-screw I, and cap D, substantially as and for the purpose specified.

JAMES A. COWLES.

Witnesses:

D. C. ALLEN,
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