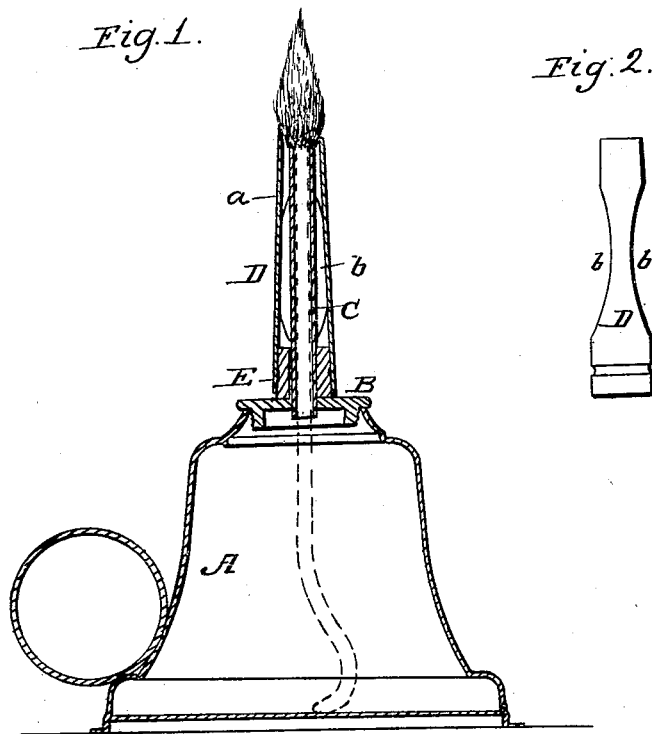


D. SYMONDS.

Lamp.

No. 46,730.

Patented March 7, 1865.



Witnesses:

Geo L. Tophy
Theo. Tuck

Inventor:

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per. Munroe
attorney

UNITED STATES PATENT OFFICE.

DEXTER SYMONDS, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **46,730**, dated March 7, 1865.

To all whom it may concern:

Be it known that I, DEXTER SYMONDS, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Lamp for Burning Coal-Oils and other Similar Hydrocarbons; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical central section of my invention; Fig. 2, a detached view of the jacket pertaining to the same.

Similar letters of reference indicate like parts.

This invention has for its object the preventing of heat being conducted down to the body of the lamp from the flame, whereby the fluid in the lamp is kept in a comparatively cool state, and the flame not supplied too copiously with vapor—a contingency which causes the flame to smoke and emit an offensive odor. The lamp is designed for a hand lamp, and to be used without a chimney.

My invention consists in placing a jacket on the wick-tube of a lamp, a space being allowed between the jacket and wick-tube, and the former insulated from the latter by means of wood or any suitable non-conducting material, the jacket being provided with openings, and all arranged as hereinafter shown and described.

A represents the body of the lamp, and B is a cap or top, which is screwed into the upper end of the lamp, as usual. C is the wick-tube, which is of cylindrical form, and fitted in the cap B in the ordinary manner. D is a jacket of thin sheet metal encompassing the wick-tube C. This jacket is sufficiently larger in diameter than the wick-tube to admit

of an air-space, *a*, between them, and in the lower end of the jacket there is fitted a plug, E, of wood or other non-conducting material, which insulates the jacket from the wick-tube, as shown clearly in Fig. 1.

The jacket D extends upward a trifle higher than the wick-tube C, and has openings *b b* in it to admit a current of air up through the space *a*, and the upper end of the jacket D spreads the flame, the latter resting on the former.

By this means the flame is rendered very persistent, and the lamp will admit of being carried about without danger of the flame being extinguished or being liable to smoke. The insulating of the jacket D from the wick-tube prevents the former from conducting heat down to the body of the lamp, the non-conductor E resting on the cap B, so that the metal part of the jacket is not in contact with any part of the lamp. Thus the fluid in the lamp will not be volatilized too rapidly, so as to supply the flame too copiously, and in consequence of the flame not having its heat drawn from it it is also rendered more persistent from that cause. The jacket D being quite thin, it cannot retain and draw heat from the flame sufficiently to injure the plug E.

I claim as new and desire to secure by Letters Patent—

The thin metal jacket D, formed with elongated air-openings *b b*, placed on or around the wick-tube C, and insulated from the latter by means of a non-conducting plug, E, all substantially as and for the purpose herein set forth.

DEXTER SYMONDS.

Witnesses:

GEO. P. LAWRENCE,
GEO. STEVENS.