H. C. HUTCHINSON.

Lamp Burner.

No. 41,846. Patented March 8, 1864.

Fig 3.

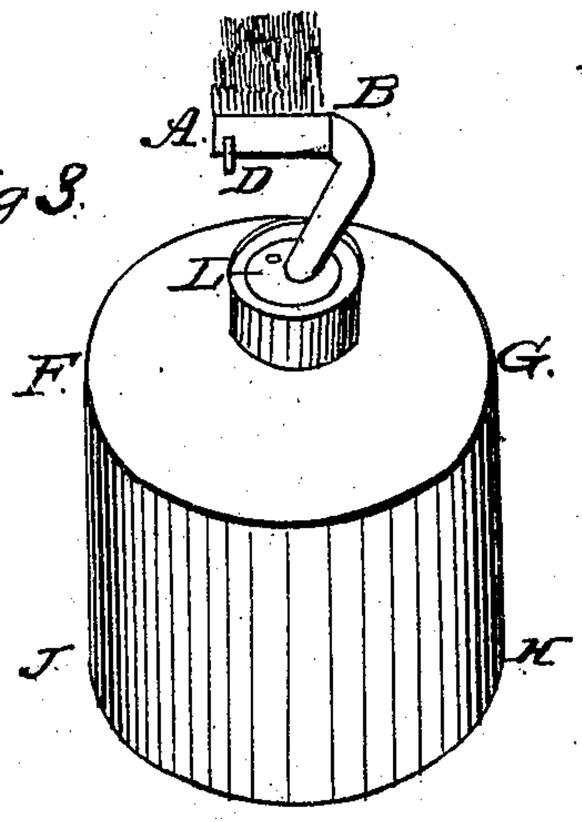
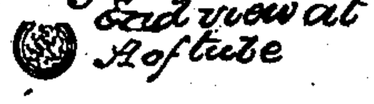
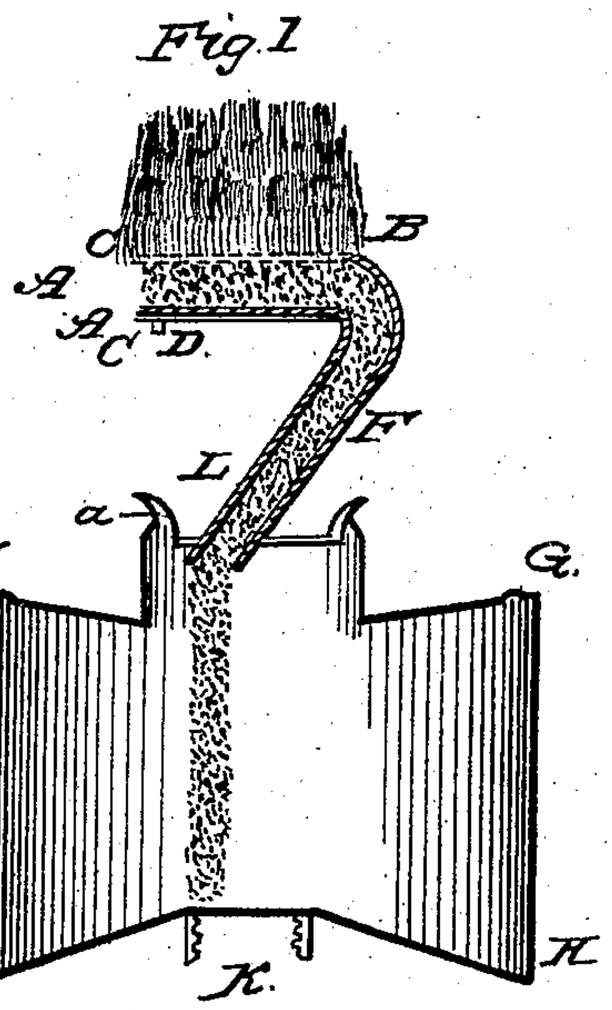


Fig. 2



End view at A of tube

Fig. 1



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY C. HUTCHINSON, OF CAYUGA, NEW YORK.

IMPROVED LAMP-BURNER.

Specification forming part of Letters Patent No. **41,846**, dated March 8, 1864.

To all whom it may concern:

Be it known that I HENRY C. HUTCHINSON, of Cayuga, in the county of Cayuga and State of New York, have invented a new and useful Lamp-Burner for Lanterns or Open Lamps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the deflection of the wick-tube and cutting an opening or slot in the side of the same, as shown in the sectional drawings hereto appended, in which—

The space A B represents the opening or slot from which the flame rises; L, the point at which the wick-tube enters the screw-cup; E, the wick; F G H I, the oil-pot or lamp. C shows a section of a regulator consisting of a tube inclosing the wick-tube, with an opening corresponding to the opening in the wick-tube, revolving freely upon the same; D, section of handle attached to regulator; K, section of screw fastening oil-pot to the base of the lantern. The wick-tube is fastened firmly to the screw-cup, which, for safety, should generally be provided with a small vent-hole.

To use the burner, draw the wick through the wick-tube, cut off the end square at C or A, and prick up the wick between A and B, so that it stands slightly above the edges of the opening. The wick then being ignited, the upward current of air, caused by the draft of the flame striking against the lower side of the tube, follows the circumference of the tube and is drawn in at the upper side against the base of the flame. The flame is also supplied with an additional quantity of air which enters the open end of the tube, and if a still larger and brighter light is required the wick-tube may be constructed open at both ends by being formed in the shape of a cross, with one-half of the wick carried each way from the upright part of the tube. When the wick burns away at the end, it may be pricked along by an instrument moving along the slot.

For burning petroleum the wick need not be tight in the tube, but will make a better light by being loose enough to admit air freely into the tube.

This burner will, besides giving an excellent light, stand to be carried in the heaviest wind in an ordinary lantern without losing the flame, and this is one particular merit claimed for this burner, that the agitation of the flame, either by wind or motion, causing it to burn against or around the wick-tube, heats it, and causes thereby an increased flow of oil, and thus enables it to hold the flame, and when the agitation ceases the flame will return to its former size and steadiness.

The regulator is not an essential part of the burner, though a convenience, and perhaps some advantage. The flame may be made as wide as desired by lengthening the lateral opening and using a larger wick.

The device of the horizontally-deflected wick-tube has a further power of holding the flame in consequence of its permitting a free passage of the air under the tube, when the flame is flared either way, which sucks around the tube, thus supplying the flame with air-currents moving in a direction favorable to combustion, but not to carrying away the flame.

What I claim as my invention, and desire to secure by Letters Patent, is—

A deflected wick-tube with a lateral opening for the flame, substantially as described, whereby a wide flame may be obtained from a small wick-tube and a free access of air to the base of the flame, in whatever direction it may burn from the tube.

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Witnesses:

WM. B. WOODIN,

ALBERT L. SIPON.