H. C. SCOTT.
Lamp-Burner.

No. 199,109. Patented Jan. 8, 1878.

Fig. 1.

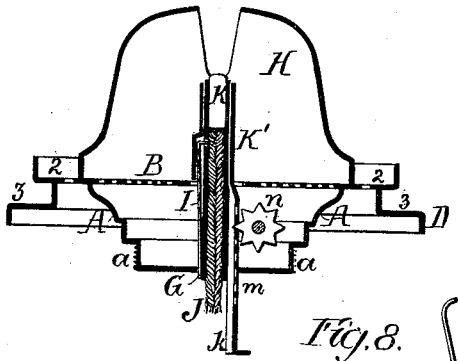


Fig. 8.

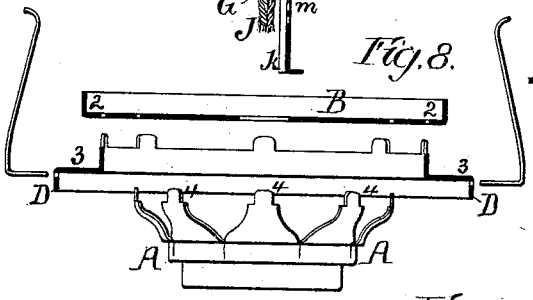


Fig. 2.

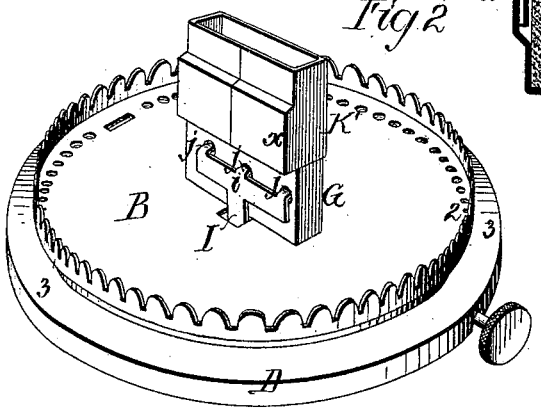


Fig. 6

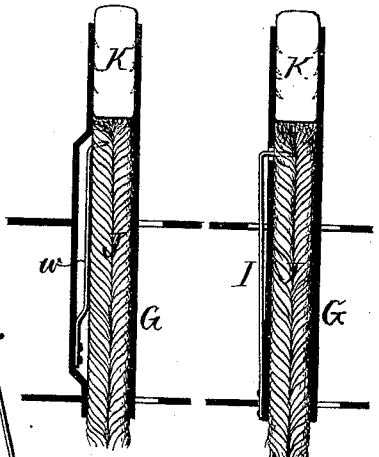


Fig. 7

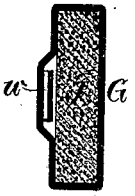


Fig. 4

Fig. 5.

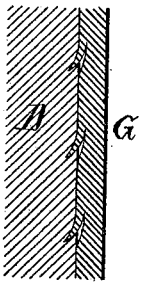
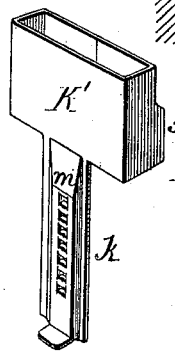


Fig. 3.



Witnesses
Hubert Howson
Harry Smith

Inventor
Henry C. Scott
by his Attorneys
Howson and Son

UNITED STATES PATENT OFFICE.

HENRY C. SCOTT, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **199,109**, dated January 8, 1878; application filed October 3, 1877.

To all whom it may concern:

Be it known that I, HENRY C. SCOTT, of Chicago, Illinois, have invented a new and useful Improvement in Lamp-Burners, of which the following is a specification:

My invention relates mainly to that class of coal-oil lamps in which an upper fixed wick of refractory and absorbent material is combined with a wick of ordinary cotton or other fiber; and the object of my invention is to effectually retain the two wicks in contact with each other in the wick-tube.

Further features of my invention relate to the construction of the burner, and are too fully explained hereinafter to need preliminary examination.

In the accompanying drawings, Figure 1 is a vertical section of a lamp-burner with my improvements; Fig. 2, a perspective view; Fig. 3, a detached view of the flame-regulating slide; Fig. 4, a transverse vertical section, drawn to an enlarged scale, of the wick-tube with its duplex wick and wick-retainer; Fig. 5, an enlarged view of part of the wick-tube and its retaining-tongues; Figs. 6 and 7, views of a modified form of retaining device; and Fig. 8, a diagram, illustrating the mode of constructing the burner.

The casing A of the burner has the usual threaded base *a* for attachment to the fountain of the lamp, and across the top of this casing extends the perforated disk B, at the edge of which is formed a ledge, 2. To this disk B, near the edge, is secured a vertical flange on a ring, D, the latter having an annular ledge, 3, so that by means of the two ledges 2 and 3 bearings are afforded for two kinds of chimneys.

To the base of the burner is secured the wick-tube G, for the reception of the flat duplex wick described hereinafter, the wick-tube passing through the disk and projecting upward to an appropriate height within the usual detachable slotted dome H.

To one side of the tube, near the lower end of the same, is secured a flat spring, I, on the top and forming part of which is a cross-bar, *i*, having pointed projections *j*, three in the present instance, which are bent at right angles to the body of the spring, and pass through holes in one side of the wick-tube, so as to hold up the fibrous lower portion J of the wick, on the top of which rests the slab K, of asbestus or other porous or absorbent and refractory material, the slab resting on and being in intimate contact with the wick.

K′ is a metal slide, made to fit snugly to the tube on all sides of the same, but to move freely thereon, the slide being enlarged at one side, *x*, to afford room for the upper end of the retaining-spring I.

From one side of the sheet-metal slide K′ depends a strip, *k*, which is stiffened by embossing on it a rib, *m*, and the latter is converted by perforations into a rack adapted to the teeth of a wheel, *n*, secured to a spindle, which passes through and turns in the casing A and ring D of the burner, and by manipulating which the slide may be raised or lowered at pleasure.

It is important that the permanent wick or slab K should be maintained in contact with the top of the wick J. For this purpose I make in the interior and on opposite sides of the wick-tube small downwardly-inclined tongues *x′*, (shown in the enlarged diagram, Fig. 5,) these tongues serving as detents to prevent the slab from rising after it has been depressed onto the top of the wick J. The tongues may be made by a pointed tool, so applied under impact to the metal before the latter is bent to the desired shape that the tongues will be raised on and from the said metal.

In place of the retaining-spring I, with its projections, a thin elastic strip, *w*, Fig. 6, may be secured to the inside of the wick-tube, or in a recess formed in the tube, as in Fig. 7, this strip being pointed and bent outward at the upper end, so as to retain the fibrous wick, which can be drawn through the tube from below upward, but cannot be depressed, owing to the retainers.

More than one of these tongues may be used, and they may be arranged on opposite sides of the wick-tube.

The above improvements may be used in connection with lamp-burners with tubular wicks, or with burners having solid round wicks.

The mode of making the burner will be best understood by reference to Fig. 8, in which it

will be observed that the perforated diaphragm B, having the annular ledge 2 for one kind of chimney, is secured to the ring D, having an annular ledge, 3, for supporting a different kind of chimney, while the casing A has projections 4, which are attached to the perforated diaphragm.

This is a simple and economical plan of constructing the burner, which is attractive in appearance.

I claim as my invention—

1. The combination of the wick-tube and its spring-retainer with the slide K′ and its projection or enlargement *x*.

2. The within-described burner, composed of the ring D, with its annular ledge 3, the perforated diaphragm B, secured to the ring, and having an annular ledge, 2, and the casing A, having projections secured to the diaphragm, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY C. SCOTT.

Witnesses:

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HARRY SMITH.