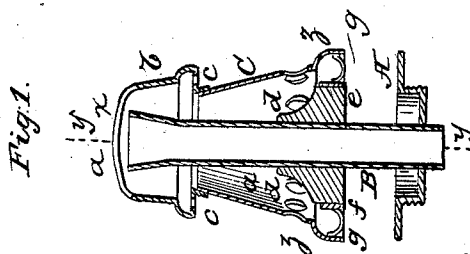
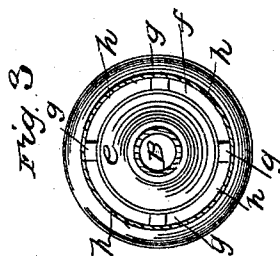
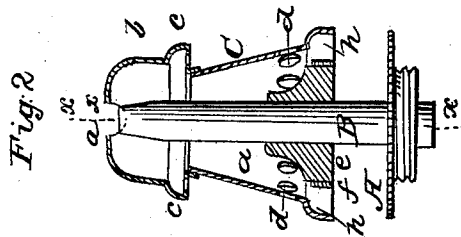


E. TRITTIN.  
Lamp Burner.

No. 33,859.

Patented Dec. 3, 1861.



Witnesses  
J. W. Coombs  
G. W. Reed

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# UNITED STATES PATENT OFFICE.

EMIL TRITTIN, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 33,859, dated December 3, 1861.

*To all whom it may concern:*

Be it known that I, EMIL TRITTIN, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and Improved Lamp for Burning Coal-Oil without a Chimney; 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, making a part of this specification, in which—

Figure 1 is a vertical central section of my invention, taken in the line *xx*, Fig. 3; Fig. 2, a vertical central section of the same, taken in the line *yy*, Fig. 1; Fig. 3, a horizontal section of the same, taken in the line *zz*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a lamp of simple construction for burning coal-oil without a chimney, one which may be readily adjusted for burning oils of different grades, and which will produce a brilliant illuminating-flame without emitting an offensive odor.

The invention consists in using in connection with a wick-tube a sliding cap, the latter being perforated and fitted on the wick-tube by means of a non-conducting connection, the parts being constructed and arranged as hereinafter shown and described, whereby the desired result is attained.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a metal top, which is screwed into the lamp, as usual, and B a wick-tube, which is permanently secured in said top and extends but a trifle below it, but projects some distance above it, as shown in Figs. 1 and 3. The wick-tube B may be of cylindrical form, flattened at its upper end, so as to produce a flat flame like that of a flat wick. (See more particularly Fig. 1.)

C represents a cap, which may be of sheet metal, and has its lower and principal part *a* of conical form. The upper part *b* of the cap is a deflector of the usual form, the lower end of which projects over or beyond the top of the part *a* sufficiently to admit of perforations *c* being made in its bottom. The lower portion *a* of the cap is also perforated all around, as shown at *d*, and in the lower end of the cap there is inserted a block *e*, of wood or other material which is

a good non-conductor of heat. This block *e* is fitted in a ring *f*, which is connected to the lower part of *a* by radial arms *g*, as shown in Fig. 3. The space *h* between the arms *g*, as well as the perforations *c* *d*, admit air into the cap C. In the upper surface of the deflector *b* there is a slot or opening *a* <sup>x</sup>, which is in line with the wick-tube B.

The wick-tube B passes through the center of the block *e*, and the latter is allowed to slide on the wick-tube B; but the friction is sufficient to retain the cap C at any desired point on the wick-tube. By adjusting the cap C higher or lower on the wick-tube B a greater or less space may be allowed between the top of the wick-tube B and the top of the deflector *b*, and the draft by which the flame is supplied with air may be regulated as desired or as the character of the oil may require. Lighter grades or more volatile oils require a greater amount of oxygen than the heavier kinds, and by elevating the cap on the wick-tube the deflector *b* causes a greater quantity of air to impinge against the flame than when the cap is depressed.

By this invention, therefore, the cap C causes a sufficient draft for the flame in all cases without a chimney, and the block *e*, being a good non-conductor of heat, prevents the wick-tube B being unduly heated, so that the flame will not be supplied with an excess of the burning material—a contingency which would occur by a too great or rapid evaporation of the oil.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The sliding cap C, formed of a lower conical part *a*, surmounted by a deflector *b*, said parts being perforated, and the cap connected with the wick-tube B by having the latter pass through the bottom *e* of the former, substantially as and for the purpose set forth.

2. Having the bottom *e* of the cap C constructed of wood or other substance which is a good non-conductor of heat, when said cap is used in combination with the wick-tube B, and all arranged as and for the purpose specified.

EMIL TRITTIN.

Witnesses:

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