(No Model.)

J. KAMPF.

LAMP BURNER.

No. 569,501. Patented Oct. 13, 1896.

Fig. 1.

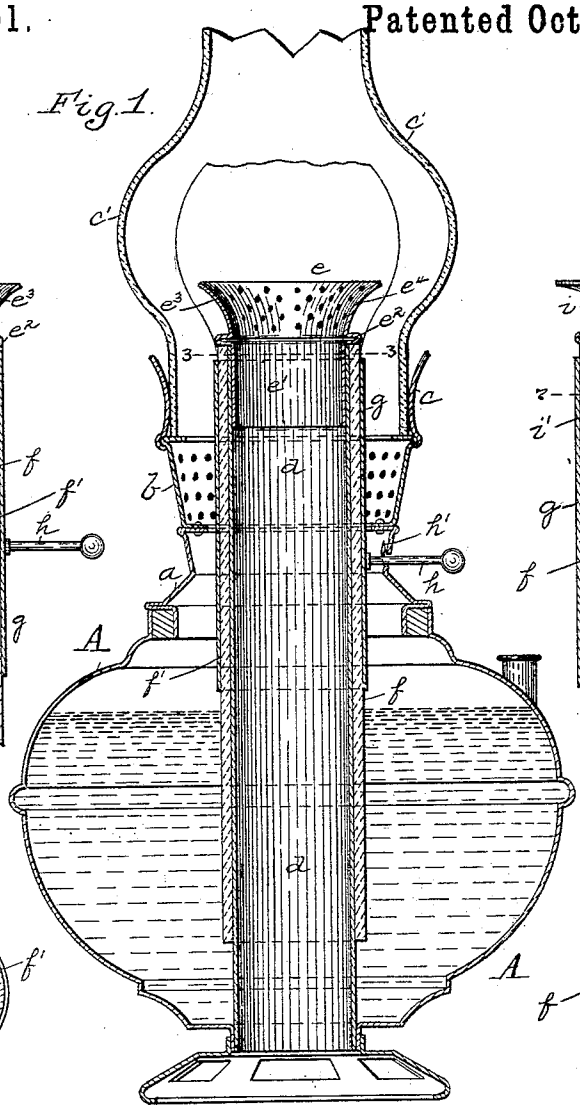


Fig. 2.

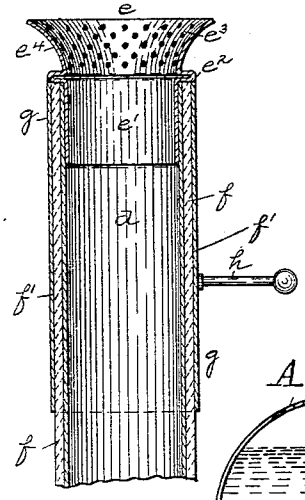


Fig. 5.

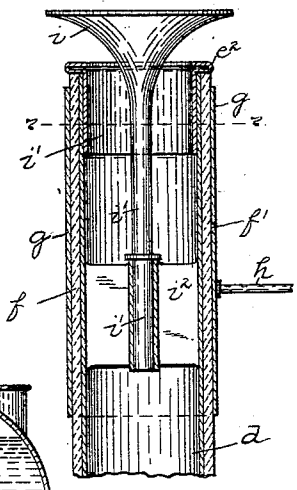


Fig. 3.

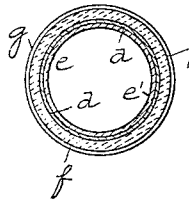


Fig. 7.

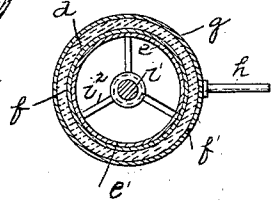


Fig. 4.

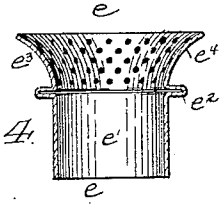
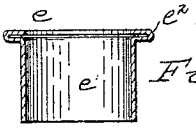


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOSEPH KAMPF, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR TO HENRY ADLER, TRUSTEE, OF SAME PLACE.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 569,501, dated October 13, 1896.

Application filed May 4, 1895. Serial No. 548,127. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH KAMPF, a resident of Allegheny city, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Lamp-Burners; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to lamp-burners, and has special reference to such as are used on central-draft lamps.

The object of my invention is to provide means whereby the wick may be caused to burn from the sides thereof and not directly at its upper edge, the same means being utilized to entirely close the annular wick-space between the wick-tubes in which the wick is arranged, so that the wick is prevented from smoking and all offensive vapors arising therefrom after the light is extinguished prevented.

My invention consists, generally stated, in combining with the lamp-fount of a stationary interior wick-tube extending through the fount and supported entirely thereby at its lower end, a cap engaging with the top of said stationary interior wick-tube, and a movable flame-regulating tube fitting around the stationary interior wick-tube to form a wick-space, sliding directly on the wick, and adapted to open and close the wick-space between the cap and the top of the movable flame-regulating tube.

It also consists in certain other details of construction and combination of parts, all of which will be more fully hereinafter set forth and claimed.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a central section of a central-draft lamp embodying my invention. Fig. 2 is a central sectional view of the upper portion of the burner, showing the burner in its closed position. Fig. 3 is a cross-section in the line 3 3, Fig. 1. Fig. 4 is a detail view showing the combined cap and flame-spreader removed. Fig. 5 is a central sectional view of the upper portion of the burner, showing another form of my invention. Fig. 6 is a view of the cap shown in Fig. 4 removed; and Fig. 7 is a cross-section on the line 7 7, Fig. 5.

Like letters here indicate like parts in each of the figures of the drawings.

As illustrated in the drawings, A represents the fount of a central-draft lamp having the flanged burner-base a secured in the top of the fount in any suitable manner. Rising from the top of the burner-base a is the foraminous skirt b, which supplies the air to the burner directly from the exterior, as is customary in central-draft lamps. The foraminous skirt b supports the chimney-gallery c above the same for holding the chimney c'. Extending through the fount a and secured therein is the stationary interior wick-tube d. The said wick-tube d extends up into the burner and supplies air to the interior of the flame, which is evolved from the exterior of the wick, as will be hereinafter described.

Mounted on the upper end of the interior wick-tube d is a suitable annular cap and flame-spreader e, which comprises a tubular portion e', fitting removably in the interior wick-tube d, an annular ring or shoulder e^2 thereon resting on the interior wick-tube d, and a perforated flame-spreader e^3 above the same, having its sides flaring, as at e^4. When the wick f is properly inserted over the interior wick-tube d, the top edge of the wick f abuts against the lower surface of the annular ring or shoulder e^2, so protecting and holding from displacement the raw edge of the wick.

Mounted to slide loosely around the interior wick-tube d on the wick f is the flame-regulating tube g, provided with suitable means for raising and lowering it, which, with the interior wick-tube d, forms the annular wick-space f' for the wick f. At one side of the burner-base a is an inclined or spiral slot h', through which extends from the flame-regulating tube g a suitable operating-handle h, whereby the flame-regulating tube g may, by the lateral movement of the handle h, be axially rotated, so as to lower or raise the same to permit the wick to be lighted or to extinguish the flame, as the case may be.

In the use and operation of the lamp-burner,

the parts being adjusted as shown in Fig. 1, the lamp may be lighted, the flame issuing from the exterior or side of the wick adjacent to the top and not from the top edge thereof. The size of the flame is regulated by the position of the flame-regulating tube *g*, the latter being raised and lowered by means of the operating-handle *h*, attached thereto. When it is desired to extinguish the flame, the flame-regulating tube *g* is raised to its highest point, where, impinging by its top edge against the under surface of the ring or shoulder e^2, it is stopped, the flame or burning space between the annular ring or shoulder e^2 and the top edge of the flame-regulating tube *g* being completely closed to prevent the rising of the smoke and noxious vapors from the wick, which accompany the extinguishing of the flame of the ordinary lamp.

To renew the wick or clean the lamp, the combined cap and flame-spreader *e* is first taken off from the interior wick-tube *d*, after which the wick *f* can be removed and the burner-base *a* disconnected from the fount A, said parts being replaced after the wick has been renewed or the lamp cleaned in the inverse order named.

In Figs. 5, 6, and 7 another form of my invention is shown in which the flame-spreader is formed separate from the cap. In this case the flame spreader or deflector *i* is supported above the burner by means of a post i', projecting axially from the fixed interior wick-tube, said post being removably anchored in a spider-frame or other suitable support i^2 in the interior of said tube. The open spider-frame permits the air passing up through to be supplied to the burner and at the same time affords a support for the deflector *i*. To renew the wick or clean the lamp in this construction, the deflector *i* is removed from its spider-frame support i^2, then the cap taken off the interior wick-tube *d*, then the wick *f*, and then the burner-base *a* taken out of the fount A. After the wick is renewed or the lamp cleaned the parts are replaced in the inverse order named.

Practical experience has proven that the lamp constructed with the burner here claimed makes a far better flame than the ordinary central-draft lamp. It burns all the oil that it raises and also the gases, overcomes the charring of the wick, and consumes all the gases generated between the tubes. The oil never becomes heated and lasts longer than in the common forms of these lamps on account of the thorough consumption of the gases. The flame is of a whiter color, the wick will last much longer, (generally about eighty or one hundred hours without trimming,) does not require slitting at the bottom in order to fit around the common wick-raising mechanism, rendering it more lasting, and can be put on and taken off by any person, as it will not come in contact with any interfering wick-raising mechanism so common in this class of lamps.

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

1. The combination with the lamp-fount, of a stationary interior wick-tube extending through the fount and supported entirely thereby at its lower end, a cap engaging with the top of said stationary interior wick-tube, and a movable flame-regulating tube fitting around the stationary interior wick-tube to form a wick-space, sliding directly on the wick and adapted to open and close the wick-space between the cap and the top of the movable flame-regulating tube, substantially as and for the purposes set forth.

2. The combination with the lamp-fount, of a stationary interior wick-tube extending through the fount and supported entirely thereby at its lower end, a cap engaging with the top of said stationary interior wick-tube, a movable flame-regulating tube fitting around the stationary wick-tube to form a wick-space, sliding directly on the wick and adapted to open and close the wick-space between the cap and top of the movable flame-regulating tube, and means for operating said flame-regulating tube, substantially as and for the purposes set forth.

3. The combination with the lamp-fount, of a stationary interior wick-tube extending through the fount and supported entirely thereby at its lower end, a cap engaging with the top of said stationary interior wick-tube, a movable flame-regulating tube fitting around the stationary wick-tube to form a wick-space, sliding directly on the wick and adapted to open and close the wick-space between the cap and top of the flame-regulating tube, and an operating-handle connected to the regulating-tube for opening and closing the same, substantially as and for the purposes set forth.

4. The combination with the lamp-fount, of a stationary interior wick-tube extending through said fount and supported entirely thereby at its lower end, a cap having a ring or shoulder thereon engaging with the top edge of said wick-tube, a movable flame-regulating tube forming with the interior wick-tube a wick-space, sliding directly on the wick and adapted to open and close the wick-space between the ring or shoulder and the top of the movable flame-regulating tube, and means for operating said regulating-tube, substantially as and for the purposes set forth.

5. The combination with the lamp-fount, of a stationary interior wick-tube extending through the fount and supported entirely thereby at its lower end, a cap having a ring or shoulder thereon engaging with the top edge of said wick-tube and a perforated outwardly-flaring flame-spreader thereon, a movable flame-regulating tube fitting around the wick-tube to form a wick-space, and sliding directly on the wick and adapted to open and close

the wick-space between the cap and top of the regulating-tube, and means for operating said flame-regulating tube, substantially as and for the purposes set forth.

6. The combination with the lamp-fount, of a stationary interior wick-tube extending through the fount and supported entirely thereby at its lower end, a movable flame-regulating tube around the interior wick-tube forming with the same a wick-space, and sliding directly on the wick, a cap comprising a tubular portion adapted to be inserted in the top of the wick-tube, said cap having a perforated outwardly-flaring flame-spreader thereon and a ring or shoulder fitting over the top edge of the wick-tube and adapted to press against the top edge of the wick, and an operating-handle connected to said flame-regulating tube for opening and closing the exterior wick-space between the top of the regulating-tube and the ring or shoulder, substantially as and for the purposes set forth.

7. The combination with the lamp-fount and burner-base thereon provided with an inclined slot, of a stationary interior wick-tube extending through the fount and supported entirely thereby at its lower end, a movable flame-regulating tube around the interior wick-tube forming with the same an annular wick-space, and sliding directly on the wick, an operating-handle projecting from the flame-regulating tube through said slot, a cap comprising a tubular portion adapted to be inserted in the top of the wick-tube, said cap having a perforated outwardly-flaring flame-spreader thereon extending above the same and a ring or shoulder fitting over the top edge of the wick-tube and adapted to press against the top edge of the wick, substantially as and for the purposes set forth.

In testimony whereof I, the said JOSEPH KAMPF, have hereunto set my hand.

JOSEPH KAMPF.

Witnesses:
J. N. COOKE,
A. M. BLAKELEY.