

No. 651,404.

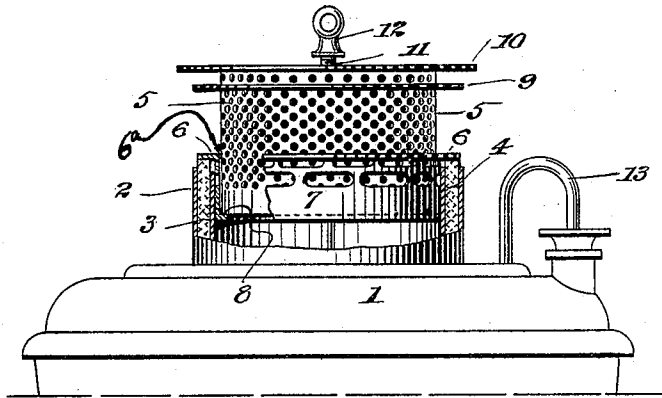
Patented June 12, 1900.

F. T. WILLIAMS.  
LAMP BURNER.

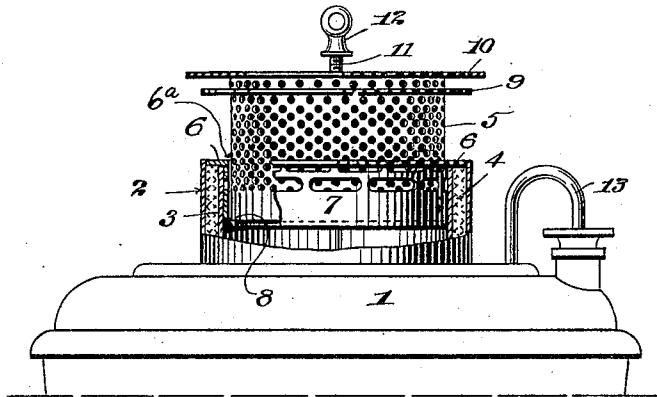
(Application filed Mar. 12, 1900.)

(No Model.)

*Fig. 1.*



*Fig. 2.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 651,404, dated June 12, 1900.

Application filed March 12, 1900. Serial No. 8,302. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK THEODORE WILLIAMS, a citizen of the United States, residing at Meriden, county of New Haven, State of Connecticut, have invented certain new and useful Improvements in Lamp-Burners, of which the following is a full, clear, and exact description.

My invention relates to lamps, particularly of the central-draft type; and the object is to improve the construction thereof.

Figure 1 is a side elevation, partly in section, of my device. Fig. 2 is a similar view of the parts in a different position.

In the preferred form of my invention shown in the drawings, 1 represents a lamp-fount of the central-draft type.

2 is an outer wick-tube, and 3 is an inner wick-tube. 4 is a wick movable between said wick-tubes.

5 is a "spreader-cone," which cone may be conical or not, as is well known in this art, said spreader-cone being movable up and down in the manner hereinafter described.

6 is a wick-guard surrounding said spreader, but independent thereof, and extending out over the wick and resting thereon. The guard 6 has a depending tubular portion 7, which preferably fits inside of the inner wick-tube 3. This guard 6 is located at the upper end of the tubular portion 7. By this word "at"

I do not mean that the guard must necessarily be at the uppermost point of the tubular portion, because that is obviously unnecessary, as the same might be located in other positions on the tubular portion, but by such word I mean to distinguish the location of the guard near the upper end from the location of the guard near the lower end. This tubular portion 7 is preferably provided with suitable perforations extending around the same at intervals below and near guard 6. The spreader-cone is supported within the tubular portion preferably by an inturned flange 8 on the latter. The spreader-cone may have suitable flanges 9 and 10 toward the upper portion thereof. There is a space 6<sup>a</sup> between the tubular portion 7 and the spreader when both have been raised by the wick for the passage of vapor to the base of the flame when the wick is turned low. This space may, I

have found, be very slight, and if the cone merely fits loosely within the tubular portion this advantage will be attained, but to a less extent.

11 is a stationary rod which passes through a hole in the top of the spreader and carries at its upper end a removable stop 12.

13 is a wick-lift which may be connected in the well-known manner to the wick, so as to permit the latter to be raised or lowered, as desired. The raising of the wick will correspondingly raise the flange 6 and the tubular portion 7, and through this means the spreader 5 will also be raised until it is checked by the stop 12, the position of which may be regulated as desired, so as to limit the upward excursion of said spreader, guard, and wick. In this way it may be ascertained in advance at just what position the wick should be stopped in order to burn with the greatest efficiency. As before stated, the flange 6 overstands the wick, so that in addition to causing the flame to be formed at the side of the wick and not directly on top the said guard may also act as an extinguisher when the wick is lowered by closing the space between the wick-tubes.

Inasmuch as the spreader will rise and fall with the tube 7, the air-supply is cut off to the proper degree when the lamp is turned low. Practice has demonstrated that the perforations between the guard and the spreader become foul and are difficult to clean. Consequently the making of the said parts separable and independent for cleansing purposes is a feature of advantage.

It will be obvious that many changes may be made in the construction herein disclosed without departing from the spirit of my invention, and I do not limit myself to the particular form shown.

What I claim is—

1. In a central-draft burner in combination, an inner and an outer wick-tube between which is a space in which a wick may be moved, a vertically-movable tubular portion having an outwardly-extending guard at its upper end adapted to rest on and be moved by the wick, said tubular portion being perforated below and near said guard, and a perforated air-cone supported within and by said

tubular portion and removable therefrom, there being a space for the passage of vapor between said spreader-cone and tubular portion when both are raised by said wick.

5 2. In a central-draft burner in combination, an inner and an outer wick-tube between which is a space in which a wick may move, a vertically-movable tubular portion having an outwardly-extending guard at its upper end  
10 adapted to rest on and be moved by the wick and to close the space between said tubes and operate to extinguish the flame, said tubular portion being perforated below and near said guard, and an inwardly-directed flange on

said tubular portion below said perforations, 15 and a perforated spreader-cone removably supported by said flange and vertically movable with said tubular portion there being a space for the passage of vapor between said spreader-cone and tubular portion when both 20 are raised by said wick.

Signed at Meriden, Connecticut, this 9th day of March, 1900.

FRANK THEODORE WILLIAMS.

Witnesses:

CLAUDE V. SUTLIFFE,  
GEO. M. CHITTENDEN.