

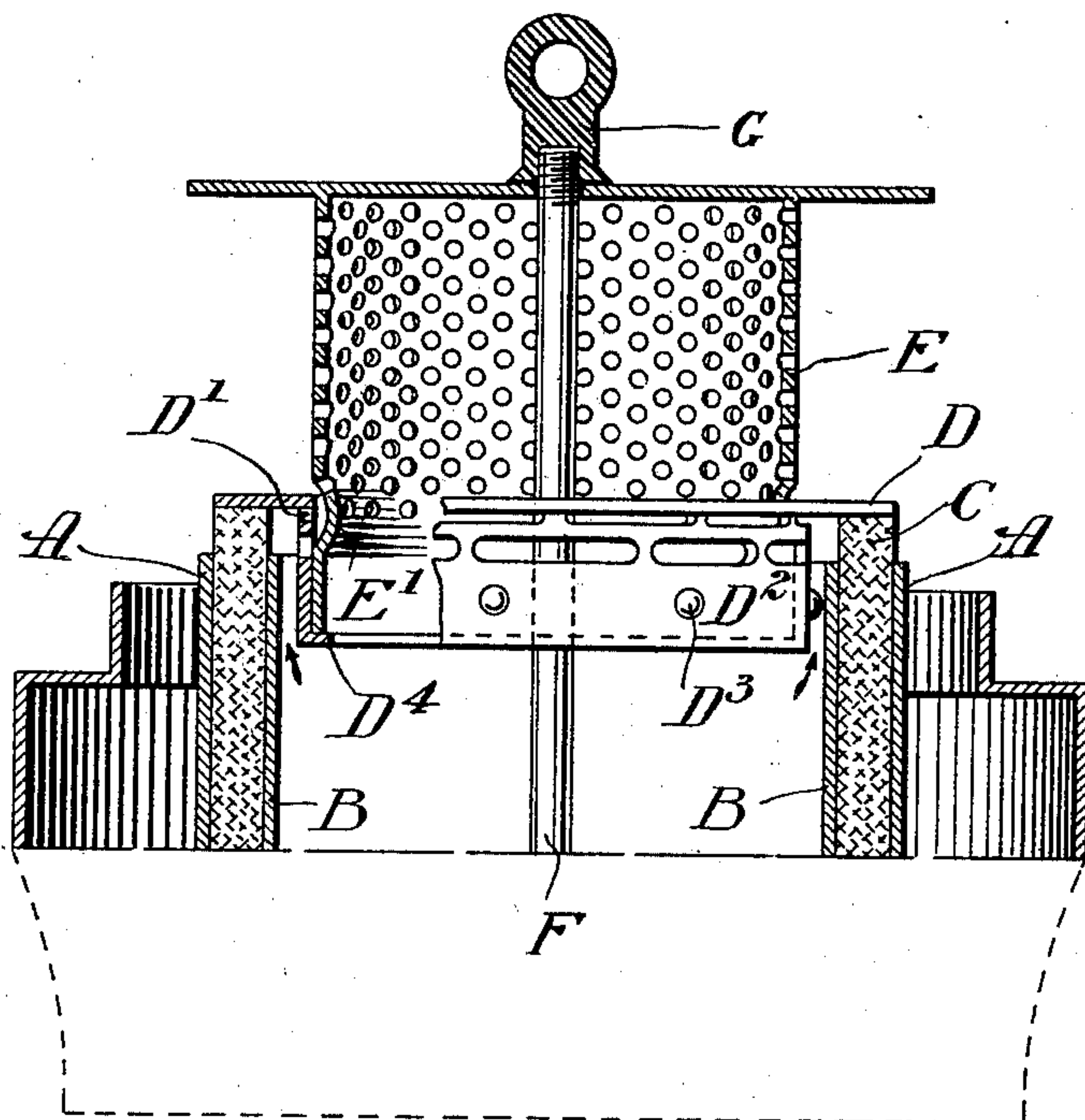
No. 671,464.

Patented Apr. 9, 1901.

F. T. WILLIAMS.  
OIL LAMP BURNER.

(Application filed Dec. 15, 1900.)

(No Model.)



WITNESSES:

*V. J. Hackley.*  
*R. S. Allyn.*

INVENTOR

*Frank T. Williams.*

BY

*R. C. Mitchell.*  
ATTORNEY

# UNITED STATES PATENT OFFICE.

FRANK THEODORE WILLIAMS, OF MERIDEN, CONNECTICUT, ASSIGNOR TO  
EDWARD MILLER & COMPANY, OF SAME PLACE.

## OIL-LAMP BURNER.

SPECIFICATION forming part of Letters Patent No. 671,464, dated April 9, 1901.

Application filed December 15, 1900. Serial No. 40,043. (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, Connecticut, have invented certain new and useful Improvements in Oil-Lamp Burners, of which the following is a full, clear, and exact description.

My invention relates to oil-lamps of the central-draft type, and particularly to the burner construction thereof.

The chief object of my invention is to prevent unsteadiness or flickering of the flame. This I accomplish by means which cause the gas and air to be mixed uniformly and in the most effective proportions, so that when lighted a flame is produced of a steady character and of practically uniform height entirely around the burner. Incidentally the construction is such that the wick cannot be raised to an unnecessary or dangerous height. In addition to the foregoing device the construction is such that the user can quickly extinguish the flame.

In the drawing I have illustrated a vertical section and elevation of a lamp-burner of my improved construction.

A is the outer wick-tube. B is the inner wick-tube. C is the wick, movable between said tubes, which wick may be raised or lowered by any well-known wick-lift device. (Not shown.)

D is an extinguisher-flange resting upon the upper edge of the wick C. This flange D has a depending wall  $D^2$  of a size substantially smaller than the inner wick-tube B, so that air flowing up through the tube B will pass up through the space between the wall  $D^2$  and said tube B and supply air to the inner side of the wick when the same is elevated. To center the part  $D'$  within the inner tube B, ribs or bosses  $D^3$  may be provided, whereby the air-space between the wall  $D^2$  and the tube B may be of uniform size all around. Obviously the ribs  $D^3$  might be formed upon the inner wick-tube B instead of on the part  $D^2$ . The shape of the centering-ribs  $D^3$  is immaterial.

E is a perforated spreader, the lower edge of which may rest upon a supporting ledge or shelf  $D^4$  in the wall  $D^2$ , so that when the wick is raised or lifted the flange D, the cy-

lindrical wall  $D^2$ , and the spreader E will move together.

F is a stationary rod which projects upwardly through the top of the spreader and which may carry a stop or cap G, which is preferably adjustable, so that by its position the upward excursion of the wick is limited. In this way by adjusting the parts before using a person cannot elevate the wick to such a height as to cause the flame to smoke. When the wick is lowered, the flange D practically covers the space between the wick-tubes A and B, and consequently the flame will be extinguished. The shape, size, or arrangement of the openings  $D'$  adjacent the inner edge of the flange D and in the wall  $D^2$  is entirely immaterial so long as they are of sufficient number to allow the proper amount of gas to flow out and upwardly to mingle with the products of combustion rising from the outer side of the wick. If desired, the spreader E may have an annular recess  $E'$  adjacent the perforations or passages  $D'$  to facilitate the upward flow of the products of combustion generated at the inner side of the wick C.

What I claim is—

1. In a device of the character described, in combination, an inner and an outer wick-tube forming between them a wick-passage, a flange resting upon and supported by the wick, a wall depending from the wick-flange, said wall projecting into the inner tube but of considerably less diameter, thereby affording an annular air-passage to the inner side of the wick, perforations in said wall adjacent the wick-flange and the inner side of the wick, and a spreader.

2. In a device of the character described, in combination, an inner and an outer wick-tube forming between them a wick-passage, a flange resting upon and supported by the wick, a wall depending from the wick-flange, said wall projecting into the inner tube but of considerably less diameter, thereby affording an annular air-passage to the inner side of the wick, perforations in said wall adjacent the wick-flange and the inner side of the wick, and a spreader carried by said wick-flange.

3. In a device of the character described, in combination, an inner and an outer wick-tube



forming between them a wick - passage, a flange resting upon and supported by the wick, a wall depending from the wick-flange, said wall projecting into the inner tube but of considerably less diameter, thereby affording an annular air-passage to the inner side of the wick, perforations in said wall adjacent the wick-flange and the inner side of the wick, and a spreader carried by said flange, and means to limit the upward excursion of said wick-flange and spreader.

4. In a device of the character described in combination, an inner and an outer wick-tube forming between them a wick - passage, a flange, a wall depending from said wick-flange and projecting into the inner tube but of considerably less diameter thereby affording an annular air opening or passage to the inner side of the wick, perforations in said wall adjacent the inner side of the wick and the inner edge of the wick-flange, and a spreader.

5. In a device of the character described, in combination, an inner and an outer wick-tube forming between them a wick - passage, a flange resting upon and supported by the wick, a wall depending from said wick-flange, said wall projecting into the inner tube but of considerably less diameter thereby affording an annular air opening or passage to the inner side of the wick, perforations in said wall adjacent the wick and the inner edge of said flange, and means to center said wall with respect to the said inner tube, and a spreader.

6. In a device of the character described, in

combination, an inner and an outer wick-tube forming between them a wick - passage, a flange resting upon and supported by the wick, a wall depending from said wick-flange, said wall projecting into the inner tube but of considerably less diameter thereby affording an annular air opening or passage to the inner side of the wick, perforations in said wall adjacent the wick and the inner edge of said flange, and means to center said wall with respect to said inner tube, a spreader, and means limiting the position of said wick-flange and spreader.

7. In a device of the character described, in combination, an inner and an outer wick-tube forming between them a wick - passage, a flange resting upon and supported by the wick, a wall depending from said wick-flange, said wall projecting into the inner tube but of considerably less diameter than said tube and thereby affording an annular air-passage to the inner side of the wick, perforations in said wall adjacent the flange and the inner side of the wick, means for centering said parts with respect to the inner tube, and a spreader carried by said wick-flange and means to limit the upward excursion of said wick-flange and spreader.

Signed at Meriden, Connecticut, this 13th day of December, 1900.

F. THEODORE WILLIAMS.

Witnesses:

I. B. MILLER,

CLAUDE V. SUTLIFFE.