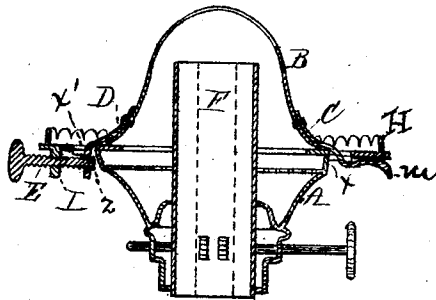


**F. S. ROBINSON.**  
**Lamp-Burners.**

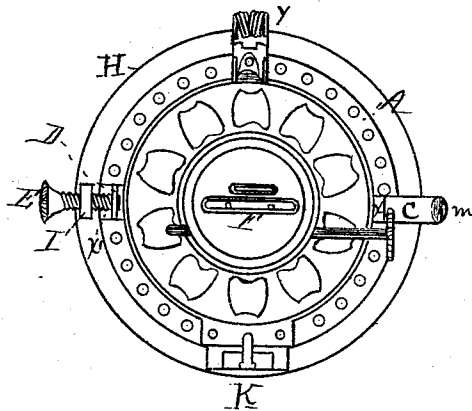
No. 146,950.

Patented Jan. 27, 1874.

*Fig. 1*



*Fig. 2*



Witnesses,  
*H. E. Metcalf.*  
*Charles Helto*

Inventor,  
*Fayette S. Robinson,*  
*By C. A. Shaw.*  
*Atty.*

# UNITED STATES PATENT OFFICE.

FAYETTE S. ROBINSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-THIRD HIS RIGHT TO CHARLES A. SHAW, OF SAME PLACE.

## IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 146,950, dated January 27, 1874; application filed December 18, 1873.

*To all whom it may concern:*

Be it known that I, FAYETTE S. ROBINSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Improvement in Lamp-Burners, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a vertical section of my improved lamp-burner. Fig. 2 is a plan of the under side of the same.

Like letters refer to like parts in the different figures of the drawing.

My invention relates to that class of burners in which a cone or deflector is used in combination with the wick-tube; and consists in a novel means of securing the cone to the cone-plate, and rendering the same adjustable thereon in respect to the tube, as hereinafter more fully set forth, the object being to simplify and render more effective burners of this description.

In all the lamps of this character heretofore in use, of which I have any knowledge, the devices for connecting the cone to the cone-plate and rendering the cone adjustable are very imperfect, no reliable means being provided for securing the cone firmly in any desired position, or of moving it gradually and accurately, for the purpose of "centering" the flame—objections which are entirely obviated by my improvements.

It is well known to all conversant with such matters that when the wick of a lamp in which hydrocarbon oil is burned is cut or trimmed unevenly, or when the wick is not properly adjusted in the tube, or the mechanism by which the wick is raised and lowered works imperfectly, the blaze or flame will flare or rise higher on one side than the other, causing the lamp to smoke, and frequently breaking the chimney. An unequal supply of air at the point of combustion, arising from the imperfect adjustment of the parts of the burner, will also produce similar results. For these reasons it is of great importance to have the cone adjust-

able in such a manner in relation to the wick-tube that the blaze or flame of the lamp can be properly centered, and caused to burn evenly; and also that the devices used for that purpose shall be of such a nature as not to be easily deranged, or to admit of the cone being accidentally changed when once fixed or adjusted in a given position.

In Fig. 1, A is the base of the burner, threaded to attach to the body of the lamp; F, the wick-tube; B, the cone; and H, the cone-seat or upper section of the burner, on which the cone and chimney are supported, and which is hinged to the base at K, Fig. 2, and also fastened thereto by the catch *y*. Attached to the two opposite sides of the cone B are two holders or dipping-guides, D C, constructed of thin flat strips of metal, and so bent and arranged as to work in the oblong apertures or slots *x x'* of the cone-seat H. These slots are so arranged in relation to the wick-tube as to be on a line drawn diametrically through the same at its widest part, there being one slot at each side of the tube, as shown. The guide or arm C passes downward through the slot *x*, and is there bent outwardly in a horizontal position, as shown at *m*, Fig. 1, in such a manner as to press upward firmly against the lower part of the cone-seat H. The guide D passes down through the opposite slot *x'*, as shown, its lower end being connected with the thumb-screw E, which screw works in the stud I, projecting from the plate H. The end of said screw is headed at *z*, and otherwise so constructed as to allow it to be turned freely to the right or left in the guard D, but not to be withdrawn therefrom.

It will be understood that the body of the cone B is of the ordinary form and construction, but is of less diameter at its base than the chimney-holder or cone-base on which it rests.

From the above description, the nature and operation of my invention will be readily understood by all familiar with burners of this character.

When the lamp burns unevenly, or flares or smokes, the only thing necessary is to turn the screw E to the right or left, as the case may be, until the flame passing through the slot in the cone is centered, when the defect

will be instantly remedied, and the lamp caused to burn in a proper manner.

The form and arrangement of the guides C D render my improvement especially applicable to hinged burners, or burners constructed in two sections and hinged together, as shown, as the guides, by passing through the cone-seat, hold the cone firmly in position when the top of the burner is opened or turned backward to light the lamp, while the screw E, arranged as described, affords the simplest and most accurate means in connection with said guides for adjusting the cone of which I have any knowledge.

It will be readily understood by all practical manufacturers of lamp-burners that the peculiar construction and arrangement of the parts, as described, do not require that accurate fitting necessary in some other forms of burners, the guides C D, constructed and operating as shown, preventing the rattling or noise which occurs when solid or unyielding connections or joints are used. The guide C not only presses upward against the under part of the cone-seat H, but exerts a slightly elastic pressure on the cone itself, to hold it in position and cause it to move smoothly and without noise on its seat. Nearly the same results can be produced by arranging the screw E, stud I, and guides C D above the cone-seat H, the guides working in loops or eyes attached to the seat; but I prefer to arrange the parts as shown and described, as they are then out of the way of the chimney, and allow of a free

lateral movement of the cone. Neither is it absolutely essential that the guide C should press against the under part of the cone-seat H, as described, although that is preferable. The male screw E may also be constructed and arranged so as to work in a corresponding female screw formed in the guide D without deviating from the spirit of my invention, said screw in that case being blank where it passes through the stud I.

I am aware that one Brimblecom obtained Letters Patent of the United States, dated April 14, 1868, and numbered 76,592, for an improvement in lamp-burners, in which an adjustable cone is described; but the devices used by said Brimblecom, as therein set forth, are materially different from my present invention. I therefore do not herein claim anything shown or described in said patent, when in and of itself considered; but

What I do claim is—

1. In combination with the cone B, the guides C D, screw E, stud I, and cone-seat H, for supporting and laterally adjusting the cone, substantially as and for the purpose specified.

2. In a lamp-burner in which the cone is laterally adjustable, the screw E and stud I, located below the plane of the cone-seat, for moving such cone without interfering with the chimney, substantially as set forth and described.

FAYETTE S. ROBINSON.

Witnesses:

C. A. SHAW,

H. E. METCALF.