No. 787,629. PATENTED APR. 18, 1905.

S. B. MORSS.

LAMP BURNER.

APPLICATION FILED AUG. 18, 1903.

Fig. 1.

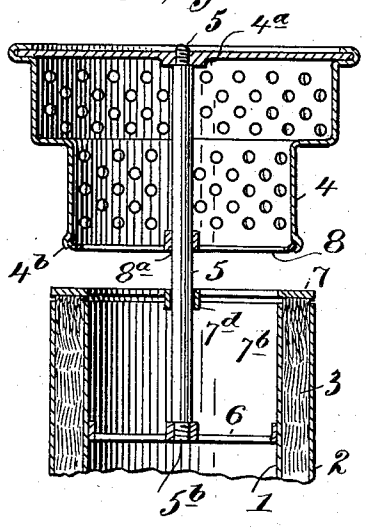



Fig. 4.

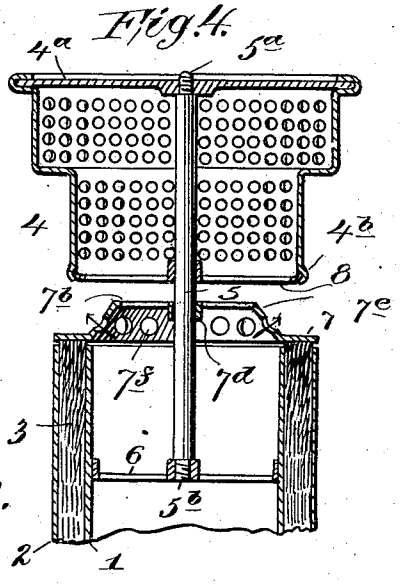



Fig. 2.

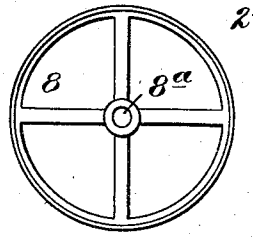



Fig. 3.

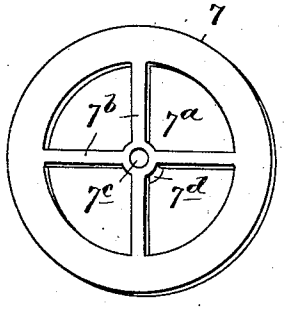



Fig. 5.

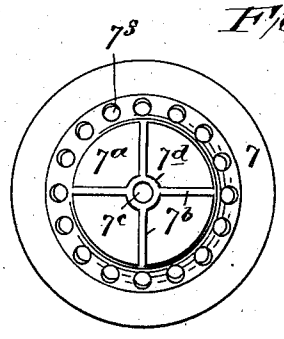
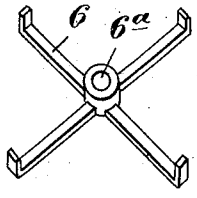



Fig. 6.

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No. 787,629. Patented April 18, 1905.

# UNITED STATES PATENT OFFICE.

STEPHEN B. MORSS, OF RAHWAY, NEW JERSEY.

## LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 787,629, dated April 18, 1905.

Application filed August 18, 1903. Serial No. 169,863.

*To all whom it may concern:*

Be it known that I, STEPHEN B. MORSS, a citizen of the United States, residing in Rahway, county of Union, State of New Jersey, have invented certain new and useful Improvements in Lamp-Burners, of which the following is a specification.

My invention relates to improvements in burners for central-draft lamps and stoves of the class in which the air thimble or distributer is provided with a gasifier or extinguisher in the form of a flange or ring extending from the same and adapted to rest upon the wick and rise and fall therewith and also provided with a stop to regulate the lifting of the distributer to render the flame smokeless.

The object of my invention is to simplify and improve the construction of such burners, to the end that the gases generated at the inner surface of the wick will pass directly to the flame, improving thereby the combustion, and in my improvements the extinguisher or flange is independent of the air-distributer and can be readily removed for cleaning and as readily replaced, and the air-distributer is firmly supported above the burner in such relation to the flange or extinguisher as to act as a stop for the latter to resist undue raising of the wick to prevent smoke rising from the flame.

The invention further comprises the novel details of improvement that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part hereof, wherein—

Figure 1 is a section of a burner embodying my invention. Fig. 2 is a detail view of the under side of the air-distributer. Fig. 3 is a plan view of the extinguisher or flange. Fig. 4 is a sectional view showing a modified form of the extinguisher or flange. Fig. 5 is a plan view thereof, and Fig. 6 is a detail perspective view of the spider for supporting the air-distributer-carrying post.

Similar numerals of reference indicate corresponding parts in the several views.

The numerals 1 and 2 indicate inner and outer wick-casing tubes of any suitable central-draft lamp-burner, and at 3 is indicated a wick between said tubes, which may be raised and lowered in any well-known manner.

At 4 is indicated a perforated air-distributer, shown supported at a suitable distance above the wick by the standard or rod 5, which is shown provided at its upper end with screw-threads $5^a$, entering corresponding threads in the top plate or cap $4^a$ of distributer 4, whereby said distributer may be secured firmly on the standard 5. The standard 5 is shown extending into the central draft-tube 1 and secured thereto by a spider 6, the ends of the arms of the spider being secured to the tube 1 in any suitable manner, as by solder. The lower end of standard 5 is shown provided with screw-threads at $5^b$, entering a threaded aperture $6^a$ in spider 6, whereby said standard is removably attached to the spider.

At 7 is indicated the extinguisher or flange adapted to rest upon the upper end of wick 3 and upon the upper ends of tubes 1 2, to be raised and lowered by the wick and to act as an extinguisher when the wick is lowered within the tubes. The extinguisher or flange 7 is guided by standard 5 to travel up and down with wick 3, and said extinguisher is provided with interior openings $7^a$ for the passage of air and gases through tube 1. The extinguisher or flange 7 is shown provided with arms $7^b$ and at the center with a guiding aperture or bearing $7^c$, shown provided in a hub $7^d$, adapted to fit loosely upon standard 5, so as to rise and fall and be guided thereby as moved by wick 3.

The air-distributer 4 is held above the extinguisher or flange 7 in such position as to provide a space between said parts in which the flange travels and to be engaged by the latter to stop the vertical movement of the wick, and the space between the top of the tubes 1 2 and the lower part of the air-distributer is of such width as will enable the flame to burn at the highest point desired without smoking when the extinguisher 7 engages the air-distributer. The lower open end of the air-distributer is shown connected with the standard 5 by a spider 8, shown provided with a central opening $8^a$, that receives said standard, the lower edge of the air-distributer being shown bent or spun around the edge of spider 8, as

at $4^b$, securing said parts together. The spider secured to the air-distributer and receiving the standard 5 keeps the air-distributer from lateral movement on said standard.

In the modification shown in Figs. 4 and 5 the extinguisher or flange 7 is shown provided with an inwardly-extending or flared portion $7^e$, to which the cross-arms $7^b$ are attached, which flared portion is provided with apertures $7^f$, that are located above flange 7, as shown in Fig. 4, in such position as to direct a portion of the gases generated at the inner surface of the wick above tube 1 outwardly to mingle with the flame without passing through the air-distributer 4.

With my improvements arranged as set forth when the wick is lowered the extinguisher or flange 7 may rest upon the upper ends of tubes 1 2 to extinguish the flame and prevent the escape of gases. When the wick is raised, said flange will rise with the same and by being guided upon the standard 5 is kept in proper position over said wick, and air passing upwardly through tube 1 has free access between the ribs or arms $7^b$ to enter the distributer 4 and to mingle with the flame, and the gases generated at the inner surface of the wick above tube 1 also have free access to the flame without passing through the air-distributer. By removing the air-distributer from standard 5 or said distributer and the standard from the support 6 the extinguisher or flange 7 can be readily removed from over the wick and cleaned to remove incrustations, &c., and as readily replaced.

The devices described are simple and cheap to manufacture, efficient in use, and not liable to get out of order.

The particular arrangements shown may be varied without departing from the spirit of my invention.

Having now described my invention, what I claim is—

1. In a burner the combination of wick-casing tubes and an air-distributer supported thereover providing a space between its lower portion and said tubes, with an extinguisher beneath the distributer and within said space, and means for guiding said extinguisher independently of the distributer when raised by the wick, substantially as described.

2. In a burner, the combination of wick-casing tubes and an air-distributer, with means for supporting said distributer above said tubes, an extinguisher adapted to overlie the space between the tubes and to rest on said tubes and located beneath said distributer and adapted to engage the same when raised by a wick, the means that supports the distributer guiding said extinguisher to travel in the space between the tubes and the air-distributer, substantially as described.

3. In a burner the combination of wick-casing tubes, a standard rising centrally within the inner tube, an air-distributer attached to said standard and extending above said tubes, and an extinguisher adapted to overlie said tubes and provided with a bearing guided to travel on said standard, substantially as described.

4. In a burner, the combination of wick-casing tubes, a standard secured to the inner tube, an air-distributer attached to the standard and located wholly above said tubes providing a space therebetween, and an extinguisher arranged to overlie said tubes and be guided by said standard and located in the space between said tubes and the distributer and arranged to engage the distributer when raised by the wick to limit the upward movement of the wick, substantially as described.

5. In a burner the combination of wick-casing tubes, a standard secured thereto and extending thereabove, an air-distributer attached to said standard and extending above the tubes, and an extinguisher adapted to rest upon the wick and provided with a bearing guided by said standard and having an interior space for the passage of air through the inner tube to the air-distributer, substantially as described.

6. In a burner, the combination of wick-casing tubes and an extinguisher adapted to rest thereon and provided with an inwardly-extended apertured portion, an air-distributer, means for supporting the same above the tubes and for guiding the extinguisher, substantially as described.

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