

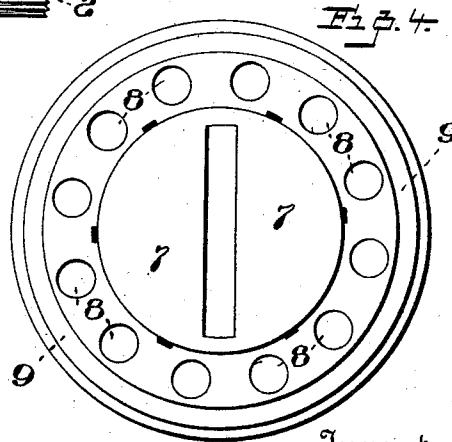
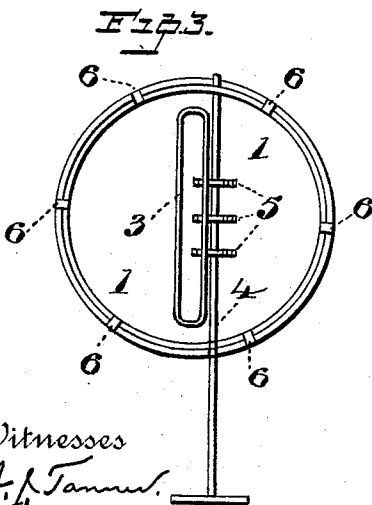
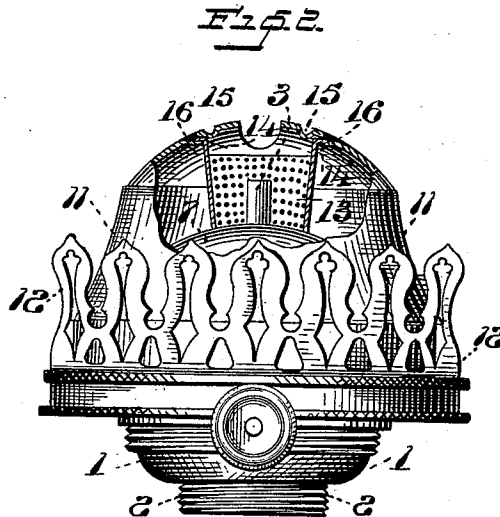
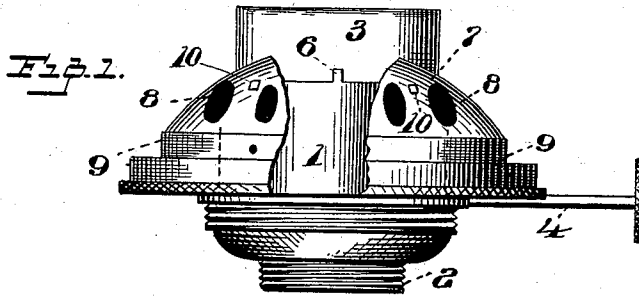
(No Model.)

3 Sheets—Sheet 1.

F. RHIND.
LAMP BURNER.

No. 505,959.

Patented Oct. 3, 1893.



Witnesses

A. J. Tamm

E. M. Newman

Inventor

Frank Rhind

by D. H. Hubbard

Attorney

(No Model.)

3 Sheets—Sheet 2.

F. RHIND.
LAMP BURNER.

No. 505,959.

Patented Oct. 3, 1893.

Fig. 5.

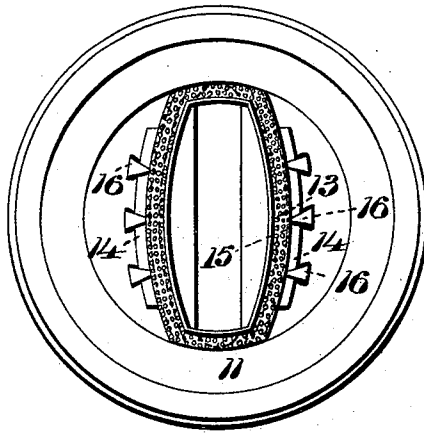


Fig. 6.

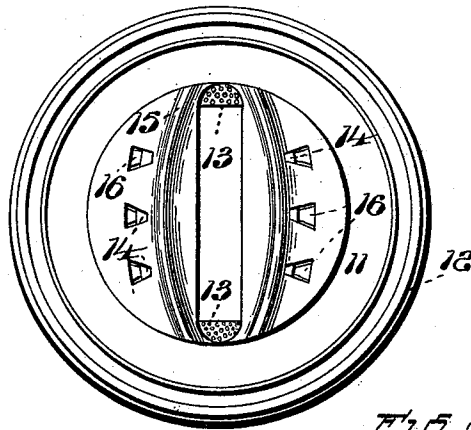


Fig. 7.

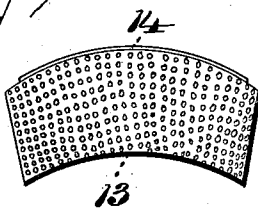
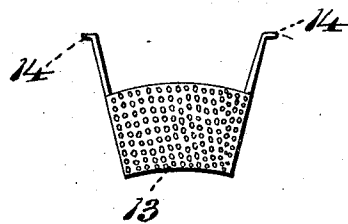


Fig. 8.



Witnesses

A. J. Tanner.

C. M. Newman

Inventor

Frank Rhind

by O. A. Hubbard,

Attorney

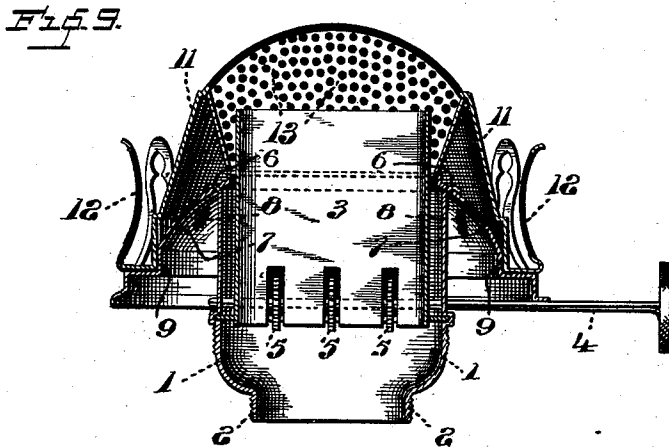
(No Model.)

3 Sheets—Sheet 3.

F. RHIND.
LAMP BURNER.

No. 505,959.

Patented Oct. 3, 1893.



WITNESSES

A. J. Tanner.
C. M. Newman

INVENTOR

Frank Rhind
by S. H. Hubbard
Attorney

UNITED STATES PATENT OFFICE.

FRANK RHIND, OF MERIDEN, ASSIGNOR TO THE BRIDGEPORT BRASS
COMPANY, OF BRIDGEPORT, CONNECTICUT.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 505,959, dated October 3, 1893.

Application filed July 11, 1892. Serial No. 439,609. (No model.)

To all whom it may concern:

Be it known that I, FRANK RHIND, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Lamp-Burners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to lamp-burners, and is especially intended as an improvement upon the lamp burner patented to me January 20, 1891, to which reference may be had, the object of the invention being to simplify and cheapen the construction in such manner as to provide a burner of great strength and consisting as far as possible of large and strong parts, many small and weak parts heretofore contained in such burners being omitted.

Another object of my invention is to construct a lamp burner, all of whose parts are accessible and may be very simply and quickly cleaned; and again, to provide an improved perforated distributor and to secure and adapt said distributor in proper relation to the other parts by means at once simple and novel; and with these ends in view my invention consists and resides in the construction and combination of elements hereinafter to be fully explained and then recited in the claim.

In order that those skilled in the art to which my invention appertains may fully understand its construction and method of operation I will describe the same in detail, reference being had to the accompanying drawings which form a part of this specification, and in which—

Figure 1, is a side elevation of the burner body and burner top, a section of the latter being broken away; Fig. 2, an elevation of the completed burner taken at right angles to Fig. 1, a section of the deflector being broken out to show the distributor. Fig. 3, is a top plan view of the burner body with the top removed. Fig. 4, is a similar view with the top on. Fig. 5, is a detail bottom plan view of the deflector. Fig. 6, is a top plan of the same. Fig. 7, is a detached side elevation of the perforated distributor skirt. Fig. 8, is

an end view of the same. Fig. 9, is a vertical central section of the entire burner.

The same numerals denote the same parts in each of the figures.

Referring now more particularly to Figs. 1 and 3, 1 denotes the burner base or body bearing upon its lower end a threaded neck 2 as a means of attachment to the lamp fount. This burner body is a short, straight shell, and it carries the wick tube 3 and a suitable wick-lift which may consist of the rotative shaft or spindle 4 shown as carrying the ratchet wheels 5 whose peripheries enter the wick tube through suitable slots in the latter. The upper edge of this burner body is furnished with a suitable number, say six or eight, of clinching tongues 6. Upon the top of the burner body I secure by means of the clinching tongues aforesaid a cover or dome which may be called the burner top. This is made in a single piece and it serves as a ratchet cap and also forms a seat for the deflector. At its center this part has a convex portion 7 which closely surrounds the wick tube and forms a smooth and unbroken surface of large area which may be easily wiped and thereby thoroughly cleansed of any dirt which may have lodged thereon. For the initial admission of air it has a number of large perforations 8 below this smooth portion, and outside the perforations it has formed thereon a seat 9 for the deflector. The connection whereby this top is fastened to the burner body and which consists of the tongues 6 and slots in the burner top corresponding with said tongues as shown in Fig. 1.

The deflector is denoted by the numeral 11 and it is provided with any suitable chimney holders 12. The interior of the lower end of this deflector is conformed to fit closely upon the seat 9, and if required any suitable locking device may be arranged between the parts.

The interior air distributor in this burner is hung from the top of the deflector, and consists of a skirt 13 which is rectangular in section and which tapers from its upper end to its lower extremity. This skirt is just long enough so that when the deflector is in position the lower edges of said skirt will rest upon and closely fit against the smooth curved

upper surface of the burner top, as is shown at Fig. 2. This requires that the sides and ends of the skirt shall be curved to correspond with the curve of the burner top substantially as shown at Figs. 2, 7 and 8. The upper edges of this skirt are also curved so as to make a close fit against the inner surface of the deflector and each of the side edges bears a flange 14 projecting outwardly therefrom. In the top of the deflector I strike a couple of inwardly-projecting ribs 15, as shown at Fig. 6, and which serve to stiffen the deflector and also form a seat against which the top of the skirt abuts. Just outside of these ribs I strike inward from the top of the dome a series of clinching points 16. When the parts are to be assembled the skirt is inserted into the deflector from beneath, its inside top edges resting against the ribs aforesaid. Then I turn down the clinching points 16 over the flange 14 in such manner that the upper end of the skirt is forced tightly against said ribs and is held firmly as against retraction or displacement by the engagement of the clinching points with the flanges 14. When this kind of deflector and distributor are combined with the construction of body and body top previously described a burner is produced which reduces the accumulation of dirt to the minimum. The deflector is not adapted to accumulate dirt in any way, but if it does it may be removed by striking

the bottom of the deflector so as to dislodge it and at the same time the whole interior of the deflector is so open and accessible that it may be wiped with an ordinary cloth should this become necessary. When the deflector is removed the exposed top of the burner presents a perfectly smooth unbroken surface which may be wiped with little, if any, trouble. The openings 8 in the burner top have been referred to above. They serve to admit air from beneath the burner, and to break it up to some extent before it reaches the finely perforated distributor, where it is still further divided before reaching the flame. This double distribution conduces greatly to the practical efficiency of the burner.

I claim—

In combination, the deflector 11, having the inwardly bent tongues together with the inwardly projecting ribs formed adjacent to the tongues, and the perforated distributor or skirt having the flange extending between the tongues and the ribs of the deflector to be held thereby, said ribs bearing against the inner edges of the flange substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK RHIND.

Witnesses:

S. H. HUBBARD,
M. C. HINCHCLIFFE.