

W. J. ROSS.  
Lamp-Chimney Holder.

No. 77,844.

Patented May 12, 1868.

Fig. 1.

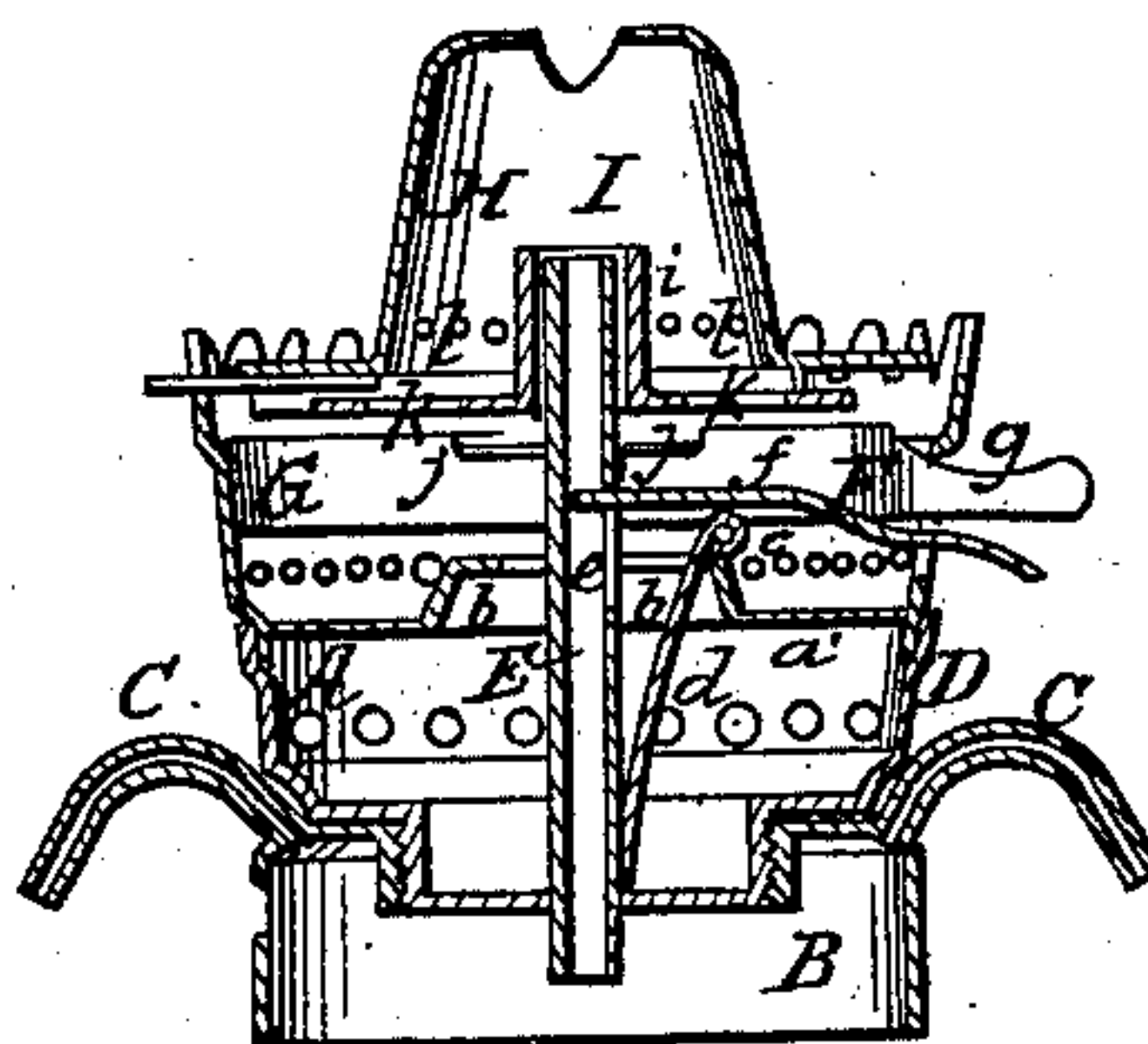


Fig. 2.

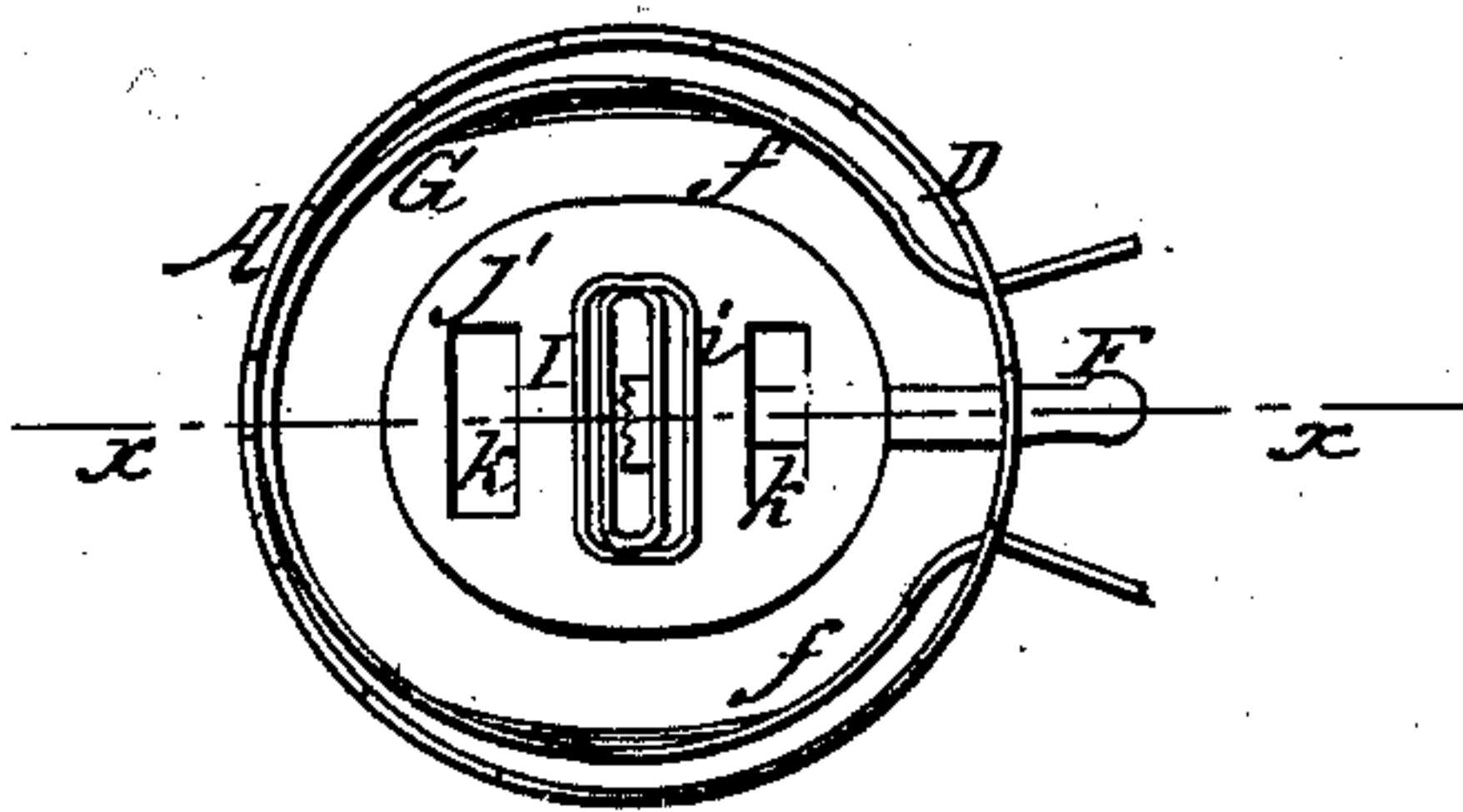
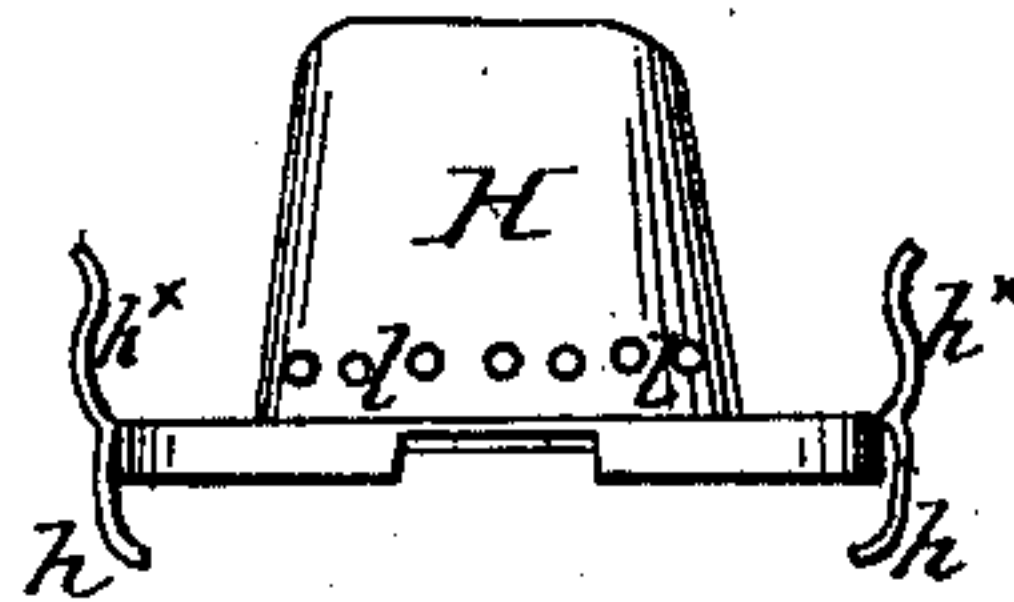


Fig. 3.



Witnesses.  
W. C. Ashkettle.  
Wm A Morgan.

Inventor.  
Wm J Ross.  
per Wm H. Ho.  
attys.

# United States Patent Office.

WILLIAM J. ROSS, OF WORCESTER, MASSACHUSETTS.

*Letters Patent No. 77,844, dated May 12, 1868.*

## IMPROVEMENT IN LAMP-BURNERS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM J. ROSS, of Worcester, in the county of Worcester, and State of Massachusetts, have invented a new and improved Lamp-Burner; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved lamp-burner, and it consists in the application of vents or tubes to the burner or socket thereof, for the purpose of admitting external air into the lamp, and preventing explosions, now due to the accumulation of vapor or gases in the lamp above the oil.

The invention also consists in a novel and improved means for raising and lowering the wick, and in an improved fastening for securing the chimney on the burner, and finally, in an air-guide, constructed in such a manner as to present or conduct the air to the flame, and cause the latter to burn in the most favorable manner, both as regards form or shape and illuminating power. In the accompanying sheet of drawings—

Figure 1 is a vertical central section of my invention, taken in the line *xx*, fig. 2.

Figure 2, a plan or top view of the same, with the cone or deflector removed.

Figure 3, a detached side view of the cone or deflector.

Similar letters of reference indicate corresponding parts.

A represents the burner, the lower end of which screws into a metal socket, B, fitted on the top of the lamp, as usual.

C C are tubes, which are fitted in the upper part of the socket B at opposite sides, and are curved or bent in semicircular or an approximate form, as shown clearly in fig. 1.

These tubes C C serve as vents, forming a communication between the interior of the lamp, above the oil therein, and the external air, and preventing the accumulation of gases within the lamp, which is the principal cause of explosions.

D is the shell or case of the burner, and E the wick-tube, secured centrally in the former, as usual. The shell or case has a horizontal partition-plate, *a*, within it, having open rings, *b b*, in it, and at each side of the wick-tube, (see fig. 1.)

F is a lever, which is secured by a pivot, *e*, to the upper end of a spring, *d*, said spring having a tendency to keep the inner end of the lever free from the wick, the wick-tube E having a slot or opening *E*, made in it, for the lever F to pass through, as shown clearly in fig. 1.

By working this lever up and down, and pressing the lever inward as its inner end is raised, the wick will be raised, the wick being lowered when desired by pressing the lever inward when its inner end is lowered.

G represents a bow-shaped spring, which may be formed of a single piece or strip of metal, bent in the form of a bow, and attached at its centre to the shell D, so that an elastic side, *f*, will be at the two opposite sides of the wick-tube, as shown in fig. 2.

These sides *ff* extend through a slot, *g*, in the side of the shell D, to admit of the two sides of the spring being compressed in order to release the cone or deflector H when necessary or desired. This cone or deflector is provided with pendent hooks, *h*, (see fig. 3,) at its edge, and at opposite sides of its centre, and within these hooks the elastic sides *ff* catch and hold the cone or deflector in position.

By pressing the elastic sides *ff* towards each other, so that they will be moved outward, and free from the pendent hooks *h*, the cone or deflector may be detached from the burner.

The base of the cone or deflector has upright projections, *h'*, attached to its edge, for the purpose of securing the chimney upon it, and admit of the latter being removed from the burner with the cone or deflector.

I represents an air-guide, which is composed of a metal tube, *i*, fitted on the upper part of the wick-tube, the former being larger than the latter, to allow an air-space between the two, as shown in fig. 1.

The bottom of the tube *i* is provided with a horizontal flange, *j*, in which slots *k k* are made, to allow an upward current of air at the exterior of the tube *i*.

The cone or deflector H is perforated with holes, l, all around its lower part, for the admission of air. By this arrangement the flame is supplied with air in such a manner as to cause it to spread out broad, and have a white color—an indication of perfect combustion and superior illuminating power.

I claim as new, and desire to secure by Letters Patent—

1. The spring G, secured within the burner, in combination with the pendent hooks h on the cone or deflector, for the purpose of securing the latter on the burner, as shown and described.

2. The upright projections h<sup>x</sup> on the lower part of the cone or deflector, in combination with the hooks h and the spring G, all arranged substantially as and for the purpose set forth.

The above specification of my invention signed by me, this fifth day of February, A. D. 1868.

WM. J. ROSS.

Witnesses:

WILLIAM E. HUSE,

WM. GREENLEAF.