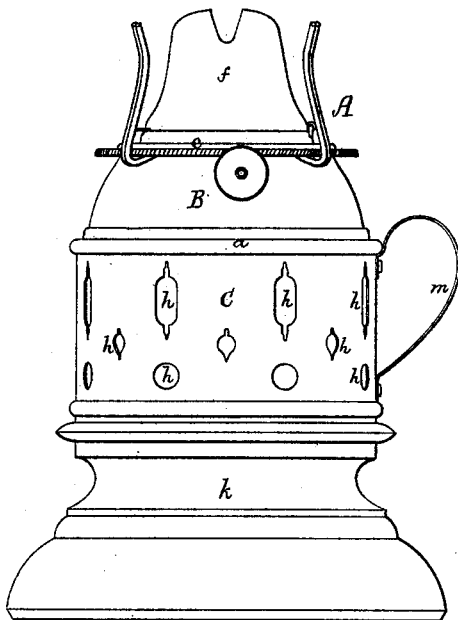


Z. B. ADAMS.  
Lamp.

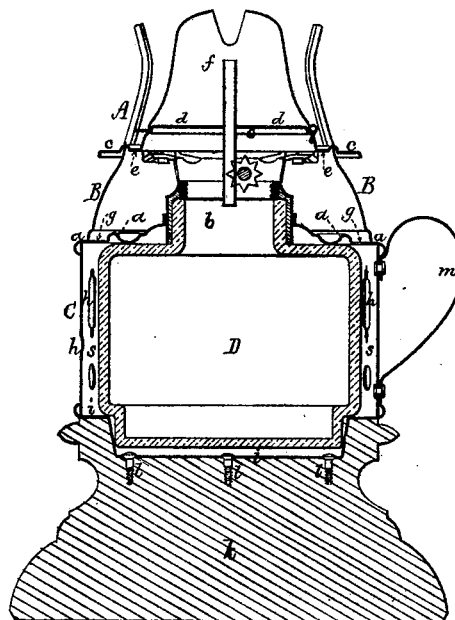
No. 214,016.

Patented April 8, 1879.

*Fig. 1.*



*Fig. 2.*



Witnesses  
*S. N. Piper*  
*W. W. Lund*

Inventor.  
*Z. Boylston Adams.*  
by attorney.  
*R. H. Eddy*

# UNITED STATES PATENT OFFICE.

Z. BOYLSTON ADAMS, OF FRAMINGHAM, MASSACHUSETTS.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **214,016**, dated April 8, 1879; application filed February 26, 1879.

*To all whom it may concern:*

Be it known that I, Z. BOYLSTON ADAMS, of Framingham, of the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Lamps; and do hereby declare the same to be described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, and Fig. 2 a vertical section, of a lamp containing my invention.

My invention consists, first, in the combination of the burner and a glass oil-reservoir, connected by screws, arranged as represented, an air-conducting dome, and a perforated metallic guard, the latter encompassing the reservoir, and serving not only to keep it cool or from being improperly heated, but to supply air more or less warmed to the dome, by which it is conveyed to and into the burner and its glass chimney when the latter is in place; second, in the combination of a heavy supporting-base with the perforated metallic guard and a separable dish or bottom piece therefor, as hereinafter described, with the glass oil-reservoir, the air-conducting dome, and the burner, all being arranged and applied as set forth.

In the drawings, A denotes the burner, which rests directly upon and is fixed to the open top of the air-conducting dome B, which, in turn, rests at its lower edge on the top *a* of a metallic casing, guard, or bell, C, that surrounds a glass oil-reservoir, D, into whose neck *b*, which extends up through the top of the guard, the burner screws.

The base-plate *c* of the burner is perforated with holes *d e*, to admit air both to the cone *f* and to a chimney when resting on the said base-plate, and held in place by a series of elastic arms projecting up therefrom and bearing on the outer surface of the said chimney.

The guard C has a circular row of perforations, *g*, in its top *a*, to allow of the passage of air from the case into the dome, and such guard encompasses the glass oil-reservoir, but

does not touch it on its periphery, there being a space, *s*, between them and around the reservoir.

The guard C has numerous air-passages, *h*, made in its sides or circumference, and it rests on a metallic dish, *i*, separable from it and provided with bayonet-catches or other suitable means of readily fixing the two together or separating them from each other.

The dish *i* is screwed or fastened to the top of a heavy wooden base, *k*, the separable dish being a ready means of connecting the base to the guard by means of screws *l l*, arranged as shown.

There is a handle, *m*, projecting, as represented, from the guard or casing C. The perforations in the sides of the guard enable a person to see the oil-reservoir and its contents, as may be necessary.

From the above it will be seen that in my improved lamp a glass oil-fountain is employed, it being less liable to break than one of metal.

It will be seen that such reservoir is not only protected from injury by the encompassing guard, but is subjected to the impingement against it of currents of air passing into such guard and to the burner, such currents serving to keep the reservoir cool, or to abstract heat from it.

This construction of the lamp tends to prevent vaporization of the petroleum or hydrocarbon liquid that may be used in the reservoir, and, besides, air which may pass into the burner will have been more or less raised in temperature by contact with the reservoir, and as a consequence combustion of the fluid of the wick will be facilitated or rendered better thereby. The heavy wooden base is not only a non-conductor of heat, but serves to prevent the lamp from being accidentally overturned while resting on a table or shelf.

I claim as my invention in the described lamp as follows, viz:

1. The combination of the burner and the glass oil-reservoir, connected as described, the

air-conducting dome, and the perforated metallic guard arranged with such reservoir, as set forth.

2. The combination of the supporting-base, the perforated metallic guard, the separable dish or bottom, the glass oil-reservoir, the air-conducting dome, and the burner, all being arranged and applied substantially as shown and specified.

3. The combination of the glass oil-reser-

voir with the metallic guard surrounding it, as described, and provided with perforations for the ingress of air and its passage to the burner or out of the top of the guard, as set forth.

Z. BOYLSTON ADAMS.

Witnesses:

R. H. EDDY,

W. W. LUNT.