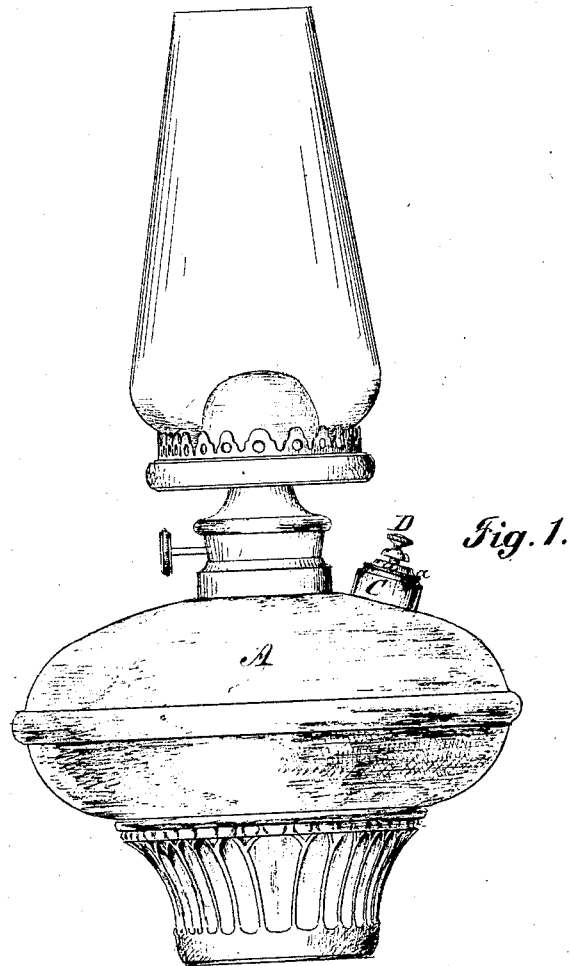


H. W. M. WASHINGTON.

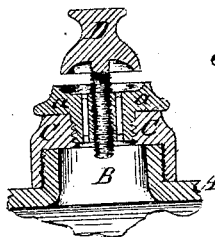
Lamp.

No. 108,416.

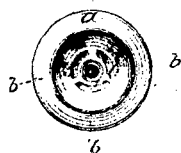
Patented Oct. 18, 1870.



*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

*Witnesses:*

*Fred. Astor.*

*Henry Lauten.*

*Inventor:*

*H. W. M. Washington.*

*By his Attorneys,*

*Upperman & Johnson.*

# United States Patent Office.

HENRY WALLACE MACRAE WASHINGTON, OF GREEN PLAINS, VIRGINIA.

Letters Patent No. 108,416, dated October 18, 1870.

## IMPROVEMENT IN SAFETY DEVICES FOR LAMPS.

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

I, HENRY WALLACE MACRAE WASHINGTON, of Green Plains, in the county of Matthews and State of Virginia, have invented certain Improvements in Safety Devices for Lamps, of which the following is a specification.

The nature of my invention and its object pertains to a desire for safety in lamps where volatile oils are used, and where gases or other vapors are generated, liable to become ignited, leading to explosions, which it is my aim to avoid, to be more minutely described hereafter.

In the drawing—

A, Figure 1, represents an elevation of the body of an ordinary lamp, with burner, chimney, &c., attached, made of glass or other suitable material.

B, (see Figure 2, which is a section of the safety device,) is a hollow projection on the top surface of the body A, at a suitable distance from the burner.

On this I secure, in any suitable manner, a cap, C, in which is screwed a valve-seat, *a*, with one or more openings or slots, *b*, as shown in Figure 3, which is a top view of the valve-seat, and a central screw-hole, for the screw of the top part D of the valve to enter, and by means of which the said part D can be raised or lowered, thus opening or closing the slot or slots *b* in the seat *a*.

The upper part of seat *a* is hollowed out, as seen in fig. 2, and the under-part of D is similarly recessed.

When the lamp is not burning, the part D is screwed down tightly upon the seat *a*, closing the slot or slots *b*, preventing any loss of oil, either from evaporation or accidental causes, such as upsetting, &c.

When the lamp is burning, the part D is to be screwed up so as to open the slot or slots *b*. The flame will heat the wick-tube, more or less facilitating the generation of combustible gases or vapors, which should be allowed to escape as rapidly as they are formed, with safety, to avoid an explosion, and more particularly not get ignited.

These vapors and gases, finding free egress through the slot or slots *b*, will pass off to the external air, while those vapors which are only of a volatile character will be more or less condensed by coming in contact with the under side of the part D, and, falling into the upper cup-shaped part of the seat *a*, will run back into the lamp, and to the safety economy is added.

Atmospheric air will also enter the lamp through slots *b*.

To fill the lamp, the part *a* is unscrewed, of course carrying with it D.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination and arrangement of the parts D, A, and C, with a lamp, D, placed at a suitable distance from the burner, as and for the purpose set forth.

H. W. MACRAE WASHINGTON.

Witnesses:

FRANCIS ARMISTEAD,

A. MARCHANT,

GEORGE S. MILLER.