F. RHIND.

LAMPS.

No. 193,673. Patented July 31, 1877.

Fig. 1

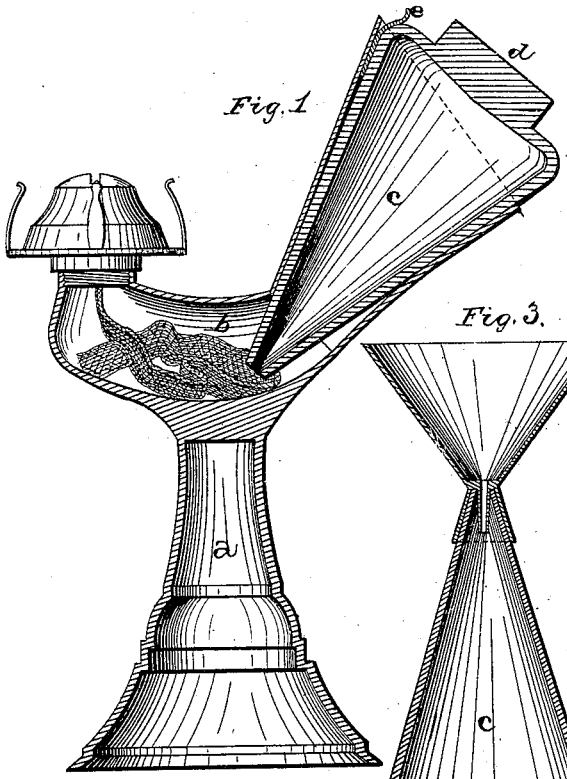



Fig. 3.

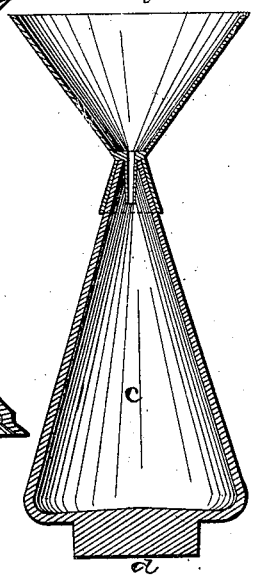
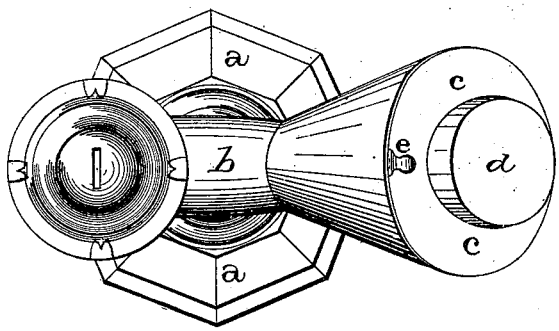



Fig. 2.




WITNESSES

Wm. Garner Jr.
Will H. Kern

INVENTOR.

F. Rhind,
per
F. A. Lehmann, atty

# UNITED STATES PATENT OFFICE.

FRANK RHIND, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **193,673**, dated July 31, 1877; application filed July 6, 1877.

*To all whom it may concern:*

Be it known that I, FRANK RHIND, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Lamps; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in lamps; and it consists in forming a chamber upon the top of the foot, so as to receive the oil-reservoir at one end and the burner at the other, the said chamber forming a receptacle for both the wick and the oil that has flowed from the reservoir. It also consists in forming the reservoir of glass, and having its upper end exposed to view, so that a person can always see when the supply of oil has been exhausted, as will be more fully described hereinafter.

The accompanying drawings represent my invention.

*a* represents the foot, upon the top of which is formed the chamber *b*. One end of this chamber is made flaring, and is much larger and higher than the other end. Into this enlarged flaring end is inserted the oil-reservoir *c*, which is made of glass, and either of the form here shown or any other that may be preferred. As here shown, this reservoir is made tapering, so as to conform to the shape of the chamber, and has a very small opening for the discharge of the oil. The larger end of this reservoir is ground off flat, so as to form the base *d*, and thereby enable it to stand without any danger of upsetting when it is removed from its socket for the purpose of being filled. Upon this enlarged end of the reservoir is also formed a shoulder of any suitable kind, over which the spring *e* snaps, for the purpose of keeping the reservoir in position. As this shoulder extends all the way around, the reservoir can be inserted into the socket without any regard to which side shall be uppermost. As the oil flows from this reservoir exactly in proportion as it is needed, a person is enabled to always see exactly how much oil is contained in it, so as to replenish it whenever necessary.

To the other end of the chamber *b* is screwed the burner, and the central part of the chamber serves not only to hold the wick, but the oil, which flows from the reservoir in sufficient quantities to keep it always saturated.

By making the chamber *b* short and horizontal it will be seen that the whole of the wick is kept together, as shown, and, as the burner is low down, the flame will burn brightly to the very last, having no distance for the wick to carry up the oil. This arrangement of parts is intended especially to do away with and prevent the flame from becoming dim as soon as the supply of oil begins to run low.

This lamp acts upon the same principle as the "student's" lamp, but has the advantages in its favor that it can be made much cheaper, and a person is always enabled to see the inside of the reservoir, so as to always know how much oil it contains, and when it needs replenishing.

By making the mouth of the reservoir very small, as shown, all necessity for having a valve or gate in it to regulate the escape of the oil is entirely dispensed with, and the oil can only flow out in just such quantities as is needed by the wick.

With each lamp there will be provided a special funnel for filling the reservoir, as shown.

Having thus described my invention, I claim—

1. The foot *a*, having a horizontal chamber, *b*, upon its top, which chamber has the burner screwed directly into one end, and the reservoir *c* inserted into the other, substantially as shown.

2. The reservoir *c*, having a flat base, *d*, a shoulder around the base for a spring to catch over, and a contracted opening for the oil to flow out, substantially as set forth.

3. The combination of the foot *a*, having a horizontal chamber, *b*, upon its top, the said chamber having an enlarged conical end to receive the reservoir *c*, and a means for holding the reservoir in position, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 29th day of June, 1877.

FRANK RHIND.

Witnesses:
WM. APGAR,
W. M. STONE.