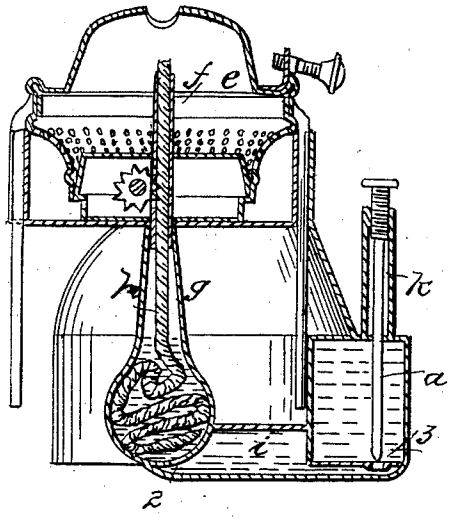
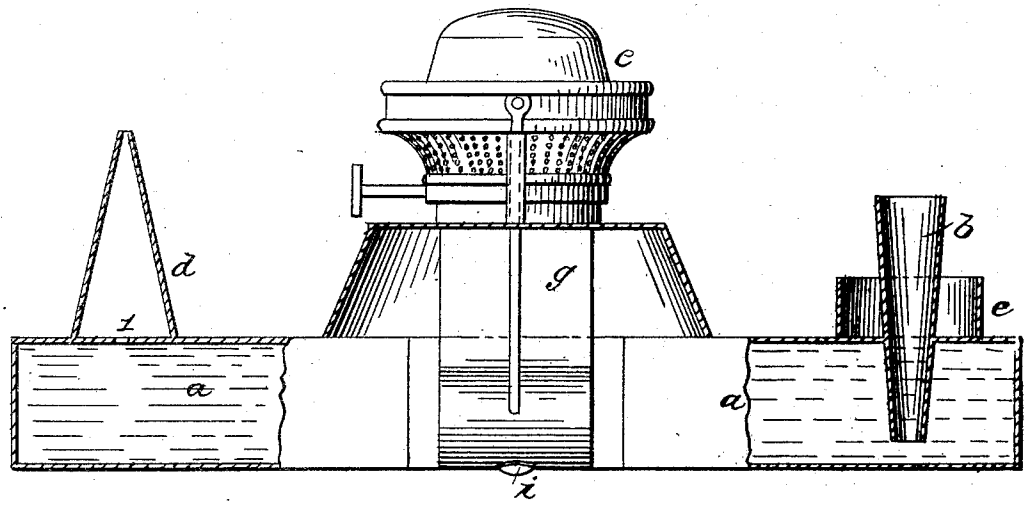
C. B. LASHAR.

Lamp.

No. 38,170. Patented April 14, 1863.





Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

CONRAD B. LASHAR, OF NEW YORK, N. Y.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **38,170**, dated April 14, 1863.

To all whom it may concern:

Be it known that I, CONRAD B. LASHAR, of the city, county, and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Lamps; and I do hereby declare the following to be a full, clear, and exact description of my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a side elevation of my lamp with the reservoir partly broken open, and Fig. 2 is a cross-section of my lamp.

Similar marks of reference denote the same parts.

The lamps employed in railroad-cars are subjected to sudden agitation, which, causing the oil to flow from side to side of the reservoir, renders the light unsteady. This is particularly the case in lamps for burning coal-oils, where the vapors in the lamp are by this movement suddenly expelled through the wick. This motion of the oil or fluid also renders it very difficult to secure the orifice through which the oil is supplied from leakage, and also to prevent an ejection of the oil through the vent or air hole.

My invention overcomes all these difficulties; and it consists in a wick-case with a small hole near the bottom, for the supply of oil, so that the said case only contains the amount of oil required for the wick, and is uninfluenced by the agitation of oil in the reservoir, and I make use of a peculiar device for admitting air to the reservoir as the oil is consumed.

In the drawings, *a* is a reservoir of any suitable size or shape. I have represented the same as flat, because better adapted to ordinary railroad-lamps, particularly those for horse-cars.

b is a tapering tube running through the top of the reservoir down to near the bottom of the same, and this tube is soldered tightly to the top of said reservoir.

c is a cup surrounding this filling-tube, to catch any oil accidentally spilled in filling.

d is a conical cap over the air vent 1 in the top of the reservoir *a*.

In filling the lamp through the tube *b* the oil passes into the reservoir as the air passes out at the vent 1. If the reservoir is subjected to agitation, no oil can be thrown out of the tube *b*, because the lower end thereof is so much below the agitated surface as to be in comparatively quiescent oil, and although the oil might rise and fall slightly in said tube *b* it could not splash out, and I prefer and use with this filling tube a plug or stopper. At the air-vent 1 the oil by the agitation may spurt out; but it is received in the hood *d* and gradually runs back through the vent 1.

e is the lamp-burner, of any desired size or kind. *f* is the wick-tube; *h*, the wick, as usual. *g* is the wick-case that is formed with or firmly attached to the tube *f*, and this case is only to be of a sufficient size to contain the lower end of the wick loosely. The connection between this wick-case and the reservoir is to be of such a character that only a small quantity of oil will be supplied thereto at any time. For this purpose, I have shown the pipe *i*, that connects with the reservoir at any desired part, and 2 is a small hole in *g* for passing the oil into the wick. This hole need only be sufficiently large to allow the contents of the reservoir to pass into the wick-case *g* as fast as the flame consumes the oil. By this means there is no opportunity for the light to be influenced by any swaying about of the oil, and the lamp does not become heated, as the warmth of the light is only communicated to the wick-case *g* at the upper part. The hole 2 might have a piece of loose cotton drawn through it, if too large, or the oil might pass into the wick-case *g* by capillary attraction in a fibrous standing wick.

I have shown a hole, 3, in the bottom of the reservoir *a*, communicating to the pipe *i*, and a screw-rod, *k*, above said hole and passing through the top of the reservoir, the conical point of which rod, acting as a valve to the hole 3, only admits the amount of oil required to saturate the wick and prevents the case *g* filling with oil.

In consequence of the gradual supply of oil to the wick-case the flame of my lamp is very steady and does not smoke. The incrustation of the wick is very slight, because the supply of material is uniform and the gases generated in the wick are all consumed with the flame.

What I claim, and desire to secure by Letters Patent, is—

1. The wick-case *g*, extending from the wick-

tube and gradually supplied with oil or fluid from the reservoir, through a small hole, 2, or its equivalent, as set forth, and for the purposes specified.

2. The cap *d*, attached directly to the surface of the reservoir itself, in combination with the vent 1, for the purposes set forth.

3. The screw-rod *k* and hole 3, in combination with the wick-case *g*, for regulating the supply of oil to said case, as set forth.

In witness whereof I have hereunto set my signature this 22d day of January, 1863.

C. B. LASHAR.

Witnesses:

LEMUEL W. SERRELL.

CHAS. H. SMITH.