

DAVID LUBIN.

Lamp.

No. 127,621.

Patented June 4, 1872.

Fig. 1

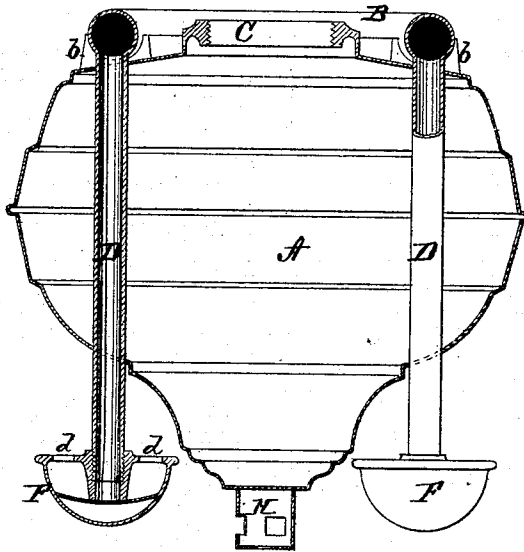


Fig. 2.

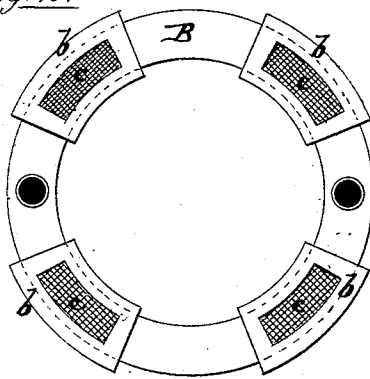


Fig. 3.

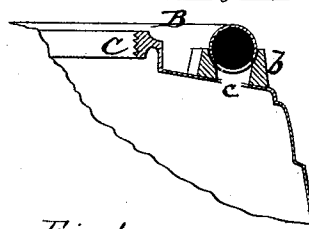
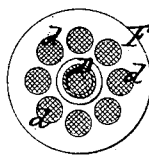


Fig. 4.



WITNESSES.

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UNITED STATES PATENT OFFICE.

DAVID LUBIN, OF NEW YORK, N. Y.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 127,621, dated June 4, 1872.

To all whom it may concern:

Be it known that I, DAVID LUBIN, of New York city, in the county of New York and in the State of New York, have invented certain new and useful Improvements in Safety-Lamps; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists of a device for rendering lamps absolutely non-explosive with any grade of petroleum or kerosene oils, as well as free from the oil or "sweat" which usually collects on the outside of lamps on account of the escape of gas.

Figure I shows a vertical sectional view of the fount of a lamp with my safety-device. Fig. III is a section of the gas-chamber cut through the standards or conductors. Fig. II is a view of the under side of the gas-chamber detached. Fig. IV is a top view of the condensing-cups.

A is the fount of a lamp. B is the gas-chamber, which is a hollow circular tube, and is securely fastened to the top of the fount by the hollow standards or conductors *b b b b*. C is the collar. D D are the gas-tubes leading from the gas-chamber downward through the fount. H is the projection at the bottom of the fount A, by which it is secured to a stand. *b b b b* are the conductors or hollow standards. *c c c c* are passages through the standards connecting the gas-chamber B with the fount A. *d d d d* are the holes or ventilators in the condensing-cups. F F are the condensing-cups, provided with wire-gauze on the inside. I use the fount of the shape or design of any common lamp now in use, whether for stand, hand, vehicle, or lantern purposes, and on the top of the same I make four holes or oblong slits to correspond in size with the passages *c c c c* in the standards *b b b b*, and also in position. The fount is also pierced to allow the gas-tubes D D to be put in at the bottom and out at the top of the same. The gas-chamber B is also pierced to allow the insertion of the upper ends of the tubes D D. When the gas-chamber B is placed on the top of the fount the standards *b b b b* cover the slits made in its surface, and the whole is firmly soldered together and the joints made perfectly tight. The gas-chamber B is a

circular hollow tube, and has openings where the conductors *b b b b* are joined to it, which are covered with wire-gauze, leaving free passage for gas to escape from the fount A into the gas-chamber B, and yet preventing any sediment in the oil to pass into it. The tubes D D are hollow and lead out from the gas-chamber B down through the fount A, passing out at its bottom; and to them there are attached the condensing-cups F F, which are also provided with wire-gauze on the inside at a point which will cover the end of the tubes D D when the cup is screwed onto the same, or at a point which will allow the end of the tube to pass through it.

In using my lamp it is fed with oil through the neck or collar *c*, and may be provided with any burner used in burning kerosene or petroleum oils. The lamp being lighted, where no gas is generated more than is sufficient to properly feed the flame, oxygen or air is continually supplied to the fount through the condensing-cups F F, tubes D D, gas-chamber B, and standards *b b b b*, and mixes with the gas, and the flame is increased and purified by reason of its being supplied with the proper supply of oxygen; but where there is so much heat from the flame as to create more gas than the flame can consume, instead of the oil or gas being forced out at the collar C or burner and covering the outside of the lamp with oil, it forces the surplus gas out through the passages *c c c c* into the gas-chamber B, down through the tubes D D, and into the condensing-cups F F, where, by its contact with the cool metal and the atmosphere, it is condensed and remains. Thus, a "safety-valve" is applied to lamps and a ready means of escape for all surplus gas is afforded.

Should the flame from one of the lamps with this device be so strong as to create so much surplus gas that it would not condense in the cups, but would escape through the holes or ventilators *d d d d*, a few drops of water put into the cups will effectually remedy the evil; and when any quantity of oil may accumulate in the cups F F they can be unscrewed or detached and emptied. These cups F F are provided with wire-gauze, as specified, and render it impossible that fire should be communicated to the gas-chamber B from without should gas, escaping through the holes or ventilators *d d d d*, be lighted by any surrounding flame, ex-

cept a breakage should occur in the gauze, when the gauze covering the openings *c c c c* in the gas-chamber B would still prevent the flame reaching the fount A should it by any means reach the gas-chamber.

The manufacture of these lamps is not confined to glass or metal, but both may be used.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a lamp for burning petroleum or kerosene oil, I claim a gas-chamber arranged on top of the fount or bowl and communicating with the same, and having tubes conducting the gas from said gas-chamber to one or more condensing-cups, substantially as and for the purposes herein set forth.

2. The gas-chamber B, connected by the conductors *b b* with the fount of a lamp, and provided with openings which are covered with wire-gauze and correspond with openings in

the conductors and in the fount, all substantially as and for the purposes herein set forth.

3. The condensing cup or cups F, provided with openings *d d* and interior wire-gauze, and connected with a gas-chamber on top of a lamp, substantially as and for the purposes herein set forth.

4. In combination with the fount A of a lamp for burning petroleum or kerosene oil, the gas-chamber B with wire-gauze covered openings, hollow standards *b b*, tubes D D, and condensing-cups F F, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of March, 1872.

DAVID LUBIN.

Witnesses:

JNO. O. GOODRICH,
FRANK C. LANG.