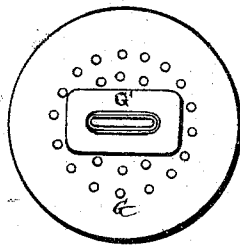
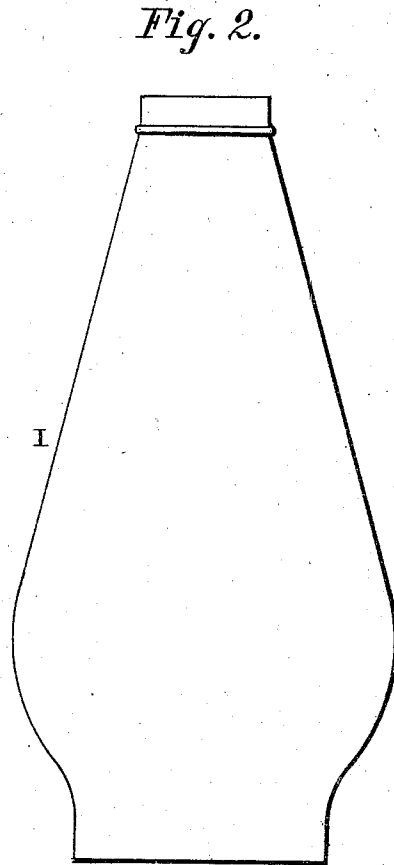
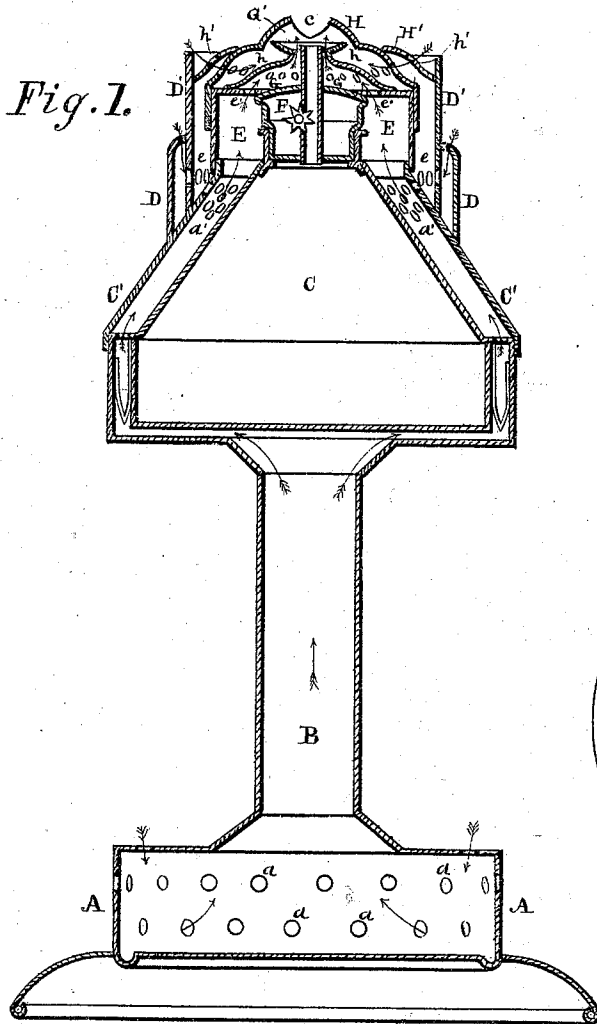


A. SYVERSON.

Lamps.

No. 151,250.

Patented May 26, 1874.



Witnesses,

Mrs. J. F. Warner

Inventor,

Andrew Syverson

UNITED STATES PATENT OFFICE.

ANDREW SYVERSON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 151,250, dated May 26, 1874; application filed December 20, 1873.

To all whom it may concern:

Be it known that I, ANDREW SYVERSON, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lamps, of which improvements the following is a full, clear, and exact description, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing, forming a part hereof, and in which—

Figure 1 is a vertical central section of a lamp provided with my improvements; Fig. 2, an elevation of the chimney, and Fig. 3 a top or plan view of the spreader and of the perforated cap which supports it.

Like letters of reference indicate like parts.

In the drawing, A represents the base of the lamp. B is a tubular extension supporting the upper parts of the lamp. The base is hollow and is perforated, as shown at *a a*. The part B communicates with the perforated chamber in the base, and is made cup-shaped at its upper end to receive the oil-cup. C is the oil-cup. C' is a shield or cap attached to the cup C, and surrounding the upper part of the latter. An air-space exists between the oil-cup and the cap C', as shown. The cap C' is fitted to the part which receives the oil-cup, and is readily removable from the said part. An air-space also exists across the bottom of the oil-cup, and surrounds its vertical walls, as shown. *a' a'* are perforations in the cap C'. D and D' are shields projecting from the cap C', and *e e* are perforations in the shield D'. It will be observed that the shield D extends above the perforations *e e*, and that an annular space surrounds the shield D'. E is a removable cap fitted to a collar or flange, in which the upper part of the cap C' terminates, and *e' e'* are perforations in the cap E. F is the wick-holder attached to and projecting above the cap E. The wick-holder also sits into the mouth of the oil-cup, as shown. G is a perforated disk resting on the cap E, and extending nearly to the top of the wick-tube, and terminating at that point in the spreader or diffuser G'. The parts G and G' are in contact, or nearly so, with the ends of the wick-tube; but a considerable space exists between the sides of

the tube and the said parts, as shown in Figs. 1 and 3. H is a removable cap sitting over the cap E, and *c* is a central slot therein to receive the flame. H' is a flange extending from the cap H to the shield D'. *h h* are perforations in the cap H, and *h' h'* are perforations in the flange H'. I is the chimney. In the construction of parts shown in Figs. 1 and 3, and already described, the chimney may be supported on the flange H', and retained in its position by means of the shield D', which projects above the said flange for that purpose; but any suitable means may be employed for the purpose of holding the chimney in its place.

It will be observed from the foregoing description that the standard is hollow and perforated at its base, and communicates with chambers leading to the flame. The direction of the current of air which feeds the flame is represented by the arrows shown on the drawing, and it will be perceived that this current finds an exit through the slot in the cap H, and is thus made to impinge the sides of the flame. In other words, the blast which strikes the flame proceeds from below the cap H. A current of comparatively cold air also passes through the spreader G', and strikes the sides of the flame.

It will also be observed that the shield D protects the perforations *a'* and *e* from lateral currents, and that the shield D' and the chimney protect the perforations *h* and *h'* and the perforations in the disk G from like currents. When the lamp is moved vertically, a sudden or uneven current through the top of the chimney may be prevented by means of a perforated cap attached thereto, and commonly employed for that purpose.

It will also be perceived that the air is fed to the flames through a perforated surface much larger than the base of the chimney, and that a current of cool air is constantly flowing about the air-cup.

By this means a strong blast is produced, which results in a bright light and a steady flame, and but comparatively little smoke is created, even when the lamp is moved about. Explosive oils and fluids are also less liable to explode, the cup being surrounded by cool air.

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

1. A lamp constructed substantially as described, and provided with the shields D and D', for the purpose of protecting the perforations in the top of the lamp from lateral currents, an open space existing between the said shields, and the inner shield being perforated, substantially as specified.

2. The combination of the hollow and perforated standard, constructed to receive the

oil-cup, the oil-cup provided with the perforated shield or cap C', and with the shield D and perforated shield D', the perforated cap E, the perforated cap G, provided with the spreader G', and the slotted and perforated cap H, provided with the flange H', all substantially as and for the purpose specified.

ANDREW SYVERSON.

Witnesses:

A. MOSNESS,
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