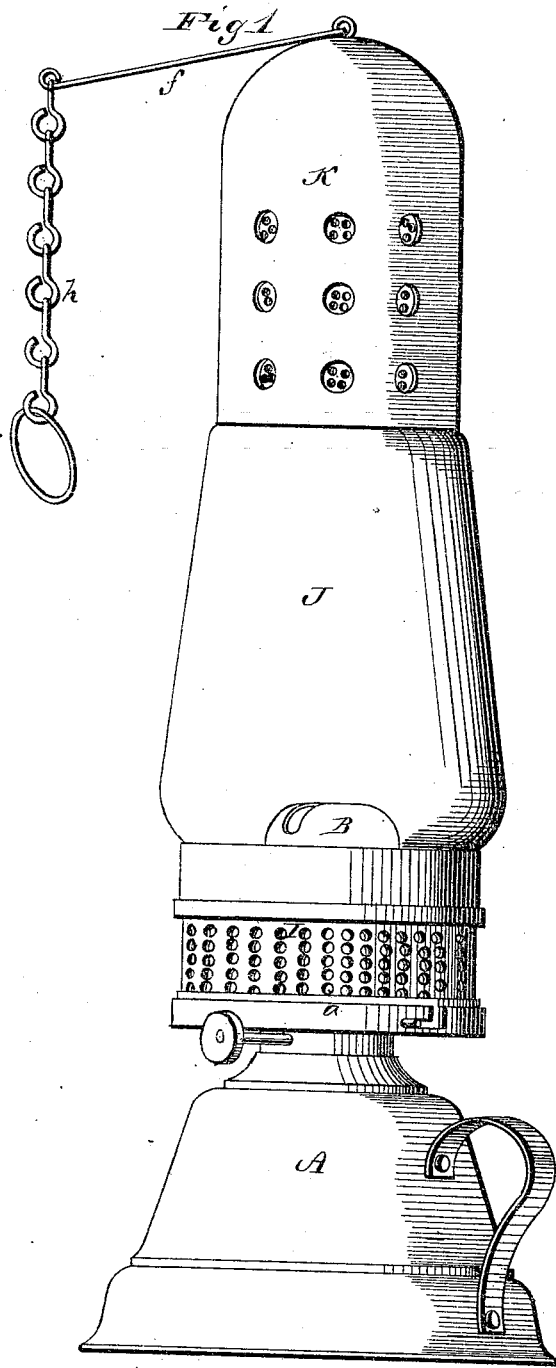


G. A. BEIDLER.
Combined Lamp and Lantern.

No. 164,254.

Patented June 8, 1875.



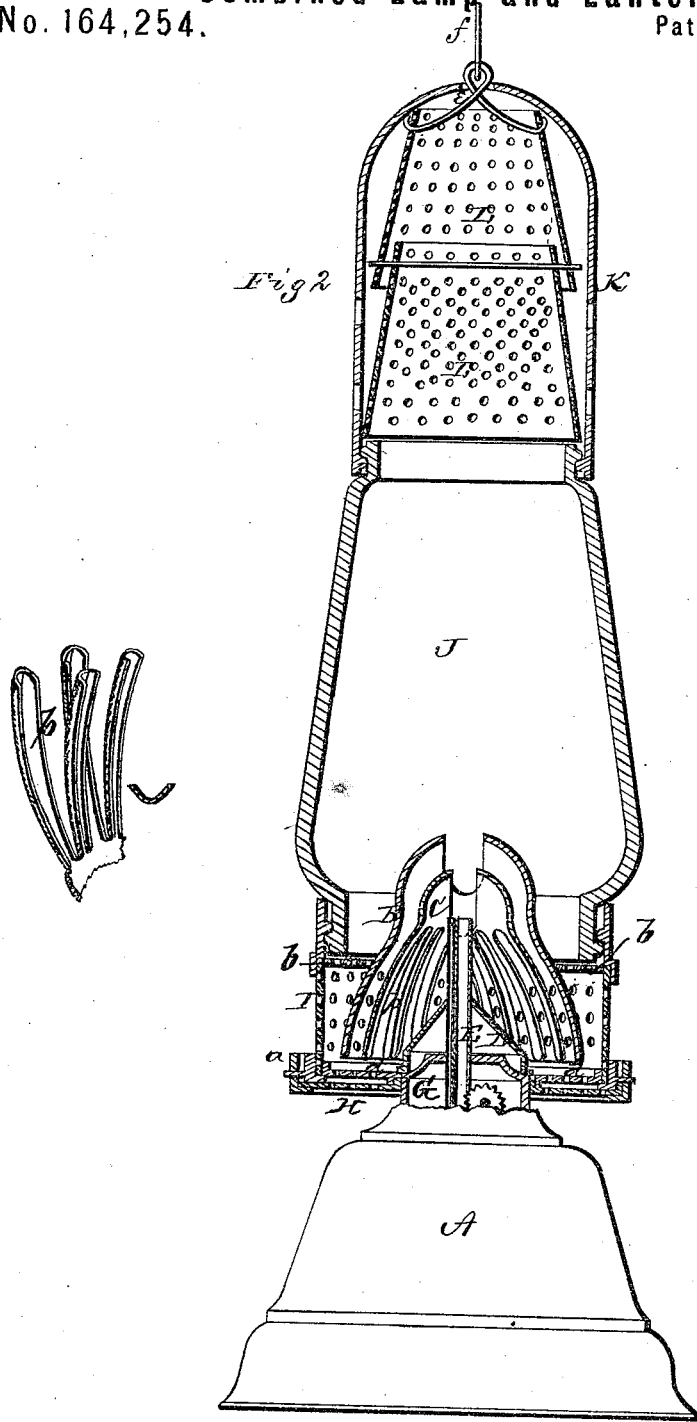
WITNESSES
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W. L. Evers By

INVENTOR
George A. Beidler
 per *Alexander Mason*
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3 Sheets--Sheet 2.
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WITNESSES
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By

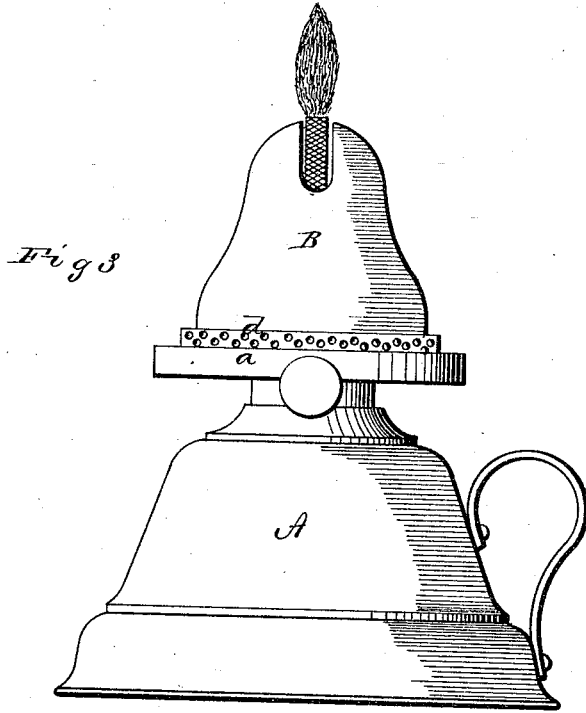
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G. A. BEIDLER.
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3 Sheets--Sheet 3.

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UNITED STATES PATENT OFFICE.

GEORGE A. BEIDLER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN COMBINED LAMPS AND LANTERNS.

Specification forming part of Letters Patent No. **164,254**, dated June 8, 1875; application filed March 17, 1875.

To all whom it may concern:

Be it known that I, GEORGE A. BEIDLER, of Philadelphia, in the county of Philadelphia, and in the State of Pennsylvania, have invented certain new and useful Improvements in Combined Lamp and Lantern; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a combined lamp and lantern which will burn with a clear white light, either as a lantern or when used as a lamp, without the use of a globe, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation of my combined lamp and lantern. Fig. 2 is a longitudinal section of the same. Fig. 3 is a side view of the lamp.

A represents the oil-reservoir of an ordinary hand-lamp, upon which I use the burner for which Letters Patent No. 76,979 were granted to me the 21st of April, 1868. This burner consists of a conical deflector, B, with an interior rarefying-conductor, C, cut into strips *p p*, bent concave, as shown, and the two connected by suitable arms with the cap D, to be placed over the wick-tube E in the screw G. On the screw G is secured a perforated disk or diaphragm, H, with upward-projecting circumferential flange *a*, to receive a cylindrical rim, I, which may be fastened thereto by means of the ordinary bayonet-lock, or by any other suitable fastening. The rim I is, for a certain distance of its height, formed of perforated sheet metal, and on the interior of the rim above the perforated portion is a perforated flange, *b*, which fits around the conical deflector of the burner.

The perforated diaphragm H, perforated rim I, and perforated flange *b* supply sufficient quantity of air to the flame, and at the same time prevent any sudden or violent gush of air from blowing out the light.

If necessary, for this latter purpose, an interior diaphragm, *d*, may be placed over the diaphragm H, and another perforated rim or band be placed within the rim, which interior devices, while they permit sufficient air to pass up to the flame, so divide and break the air-currents as to prevent the blowing out of the light. In place of the perforated diaphragm H, I may use a solid disk with one or more air-tubes extending up above the point where the flame emerges from the deflector to supply a sufficient quantity of air within the flame. J represents the glass globe, made cylindrical or oval, as desired, and screwed into the rim I. On top of the globe J is screwed the top or dome K, provided with the usual large perforations, and within the same is a conical "air-breaker," L, made of perforated sheet metal in two pieces or sections, as shown. The upper section, however, may be solid and not perforated, as desired. This air-breaker is suspended by means of links *e*, passing through the top of the dome K, from a rod, *f*, which is formed with an eye at its lower end, to prevent it going through the hole in the top of the dome. The rod *f* is made long enough, so that the suspending-chain *h*, attached to its outer end, cannot under any circumstances, when the lantern is set down, hang against the globe and become heated. The sectional perforated air-breaker L prevents any current of air from blowing downward through the top and put out the light. It being conical, it forms an air-chamber between it and the dome, in which the air has a chance to circulate before passing through the air-breaker, so as to reach the interior of the lantern gently, and at the same time prevents the heating of the dome. The globe J may be united with the rim and dome by lugs or other suitable means, as well as by screw-threads, as described.

This lantern may be used as a lamp without a globe by simply detaching the rim I from the base.

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

1. In combination with the reservoir A and a burner thereon, the perforated diaphragm H and perforated rim I, with perforated flange

b, substantially as and for the purposes herein set forth.

2. In combination with the perforated dome *K* of the lantern, the perforated air-breaker *L*, made in sections, loosely connected together, and loosely sustained within the dome by means of the rings *e* and rod *f*, all substantially as set forth.

3. The combination of the links *e*, rod *f*, and chain *h* with the dome *K* of a lantern, all constructed substantially as and for the purposes herein set forth.

4. The combination with the reservoir *A*

and the burner thereon, the perforated diaphragm *H*, perforated rim *I*, having perforated flange *b*, the detachable globe *J*, and dome *K*, having sectional air-breaker *L*, all substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of March, 1875.

G. A. BEIDLER.

Witnesses:

C. L. EVERT,

W. A. SKINKLE.