G. A. BEIDLER.
Lantern.

No. 208,785. Patented Oct. 8, 1878.

Fig. 3.

Fig. 4.

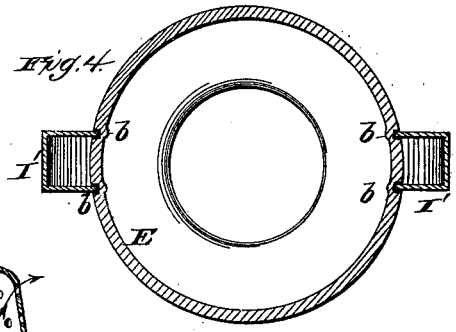


Fig. 1.

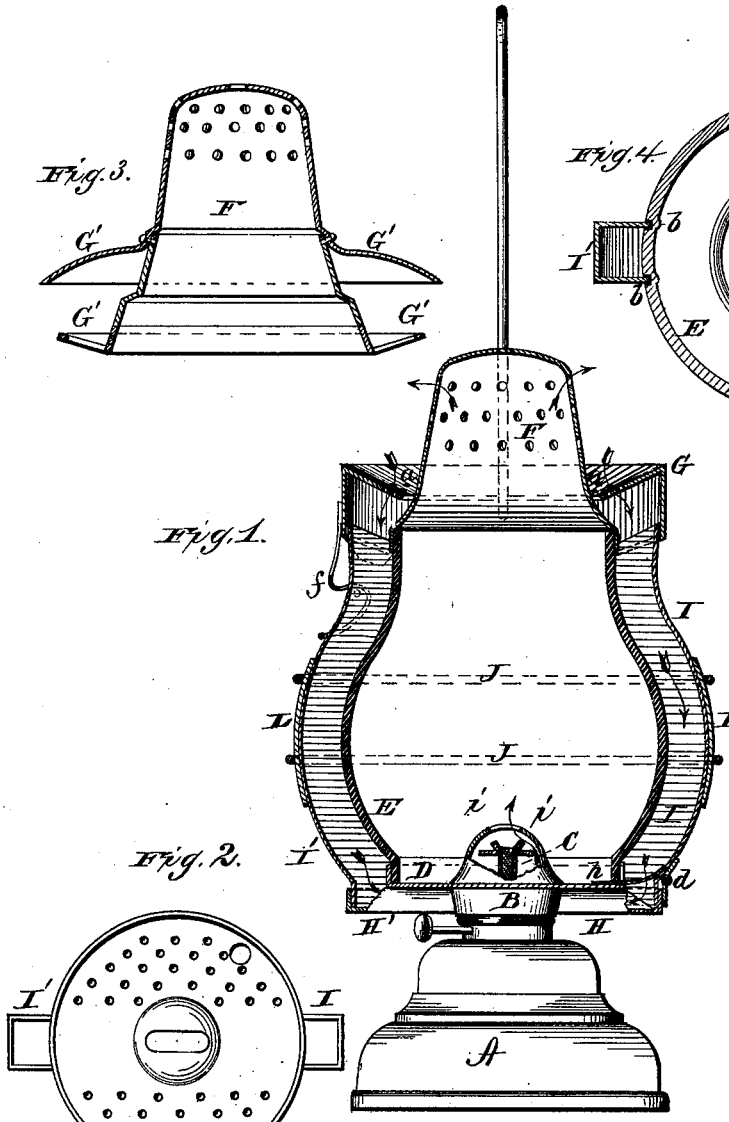


Fig. 5.

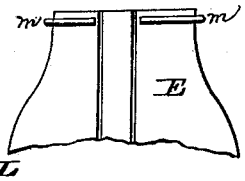
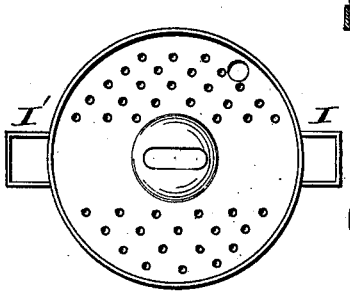


Fig. 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

GEORGE A. BEIDLER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. **208,785**, dated October 8, 1878; application filed September 6, 1878.

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 Lanterns or Lamps; 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.

My invention relates to that class of lanterns in which the air is taken in at or near the top of the globe, carried down at the sides thereof, and supplied to the burner; and the nature of my invention consists in the construction of flues for conducting the air from the top downward to the burner; in a catch for holding the globe to one of the flues; in the construction of the wick-tube, and in the construction and combination of parts, 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 drawings, in which—

Figure 1 is a central vertical section of a lantern embodying my invention. Fig. 2 is a bottom view of the base for the globe. Figs. 3 and 4 show modifications of my invention, and Fig. 5 is a view of a detail.

A represents the oil-reservoir of a lantern. B is the burner, with wick-tube C. D is the base, attached to the burner, upon which the globe E is supported. F is the perforated top, which rests on the upper end of the globe. To the top F is attached a sort of dish-shaped vessel or chamber, G, having numerous perforations or openings *a a* in the upper side for the entrance of air, as shown.

The chamber G may or may not be closed at the bottom; but preferably it is made so as to have only two outlets, which lead into two flues, I and I′, and these flues extend down close to or against the globe E to the lower end thereof, where they communicate with passages or flues H H′, respectively, to conduct the air from the top to the burner.

The flues I I′ may be made of metal or any other suitable material, and run down either on the outside or inside of the globe. In either case the globe itself forms one side of each flue, while the flues proper may come in contact with the globe, as shown in Fig. 2, or may have their edges inserted in grooves made in the globe, as shown at *b b* in Fig. 4.

The flue I is connected to the flue passage or chamber H by a hinge, *d*, and the upper chamber, G, with the top F, is made fast to the upper end of said flue I.

The flue I′ may be made permanently attached to the passage H′, and the top and chamber F G connected thereto by a spring-catch, *f*, of any suitable construction.

In the bottom of the flue I is a spring arm or latch, *h*, upon which the globe E rests, and which holds the globe when the same is thrown to one side with the flue I for lighting the lantern, thus retaining the globe in its place at all times.

It will readily be seen that the flues I I′ conduct the air from the top down the sides of the globe to the burner, and said flues, being made entirely independent of the globe, can be manufactured at but comparatively trifling cost.

The wick-tube C is at its upper end provided with inclined flanges *i i*, as shown in Fig. 1, which break the force of the blast or air as it enters the burner to the flame; and while said flanges form no impediment or obstruction to the passage of the air, they prevent any flickering of the flame, which might be caused by a too sudden mingling of the current of air with the flame.

Wire guards J J may be applied to this lantern, as shown, by connecting the same with flanged plates L L to fit over the flues I I′. These guards and plates are made entirely separate, and may or may not be used, as desired.

In lieu of the dish-shaped chamber G, as above described, I may provide the top F with projecting flanges G′ G′, as shown in Fig. 3, the lower one of said flanges having apertures to form connections with the flues.

In some cases I may provide the globe at its upper end with lugs *m*, extending partially around the same, as shown in Fig. 5, to form a support for the top and guide for the flues.

My lantern is, of course, to be provided with

a bail, chain, or other device for carrying and handling the same.

I am aware that lanterns are known where a closed cap or cover has been used over the globe, so as to revert the products of combustion through passages made in the bottom of the overlapping cap or cover.

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

1. In combination with the flues I I', arranged in close contact with the globe, the air-gathering chamber G at the upper part of the globe, and having openings *a a* for conveying air down the flues, and the flue-passage H for conveying air to the flame, and the dome F, with perforations to allow the exit of air, all substantially as set forth.

2. The combination of the hinged flue I, top F, with chamber G, stationary flue I', and a spring-latch, *f*, substantially as and for the purposes herein set forth.

3. The spring-arm *h*, arranged in the lower end of the flue I, in combination with the globe E, for the purposes set forth.

4. The mouth of the wick-tube, provided with a horizontal plate having lips or flanges *i i* on each side of the tube, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of September, 1878.

GEORGE A. BEIDLER.

Witnesses:

FRANK GALT,

J. J. MCCARTHY.