

(No Model.)

T. LANGSTON.
LANTERN.

No. 556,423.

Patented Mar. 17, 1896.

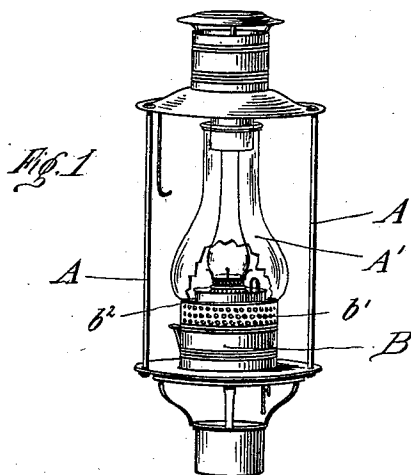


Fig. 2.

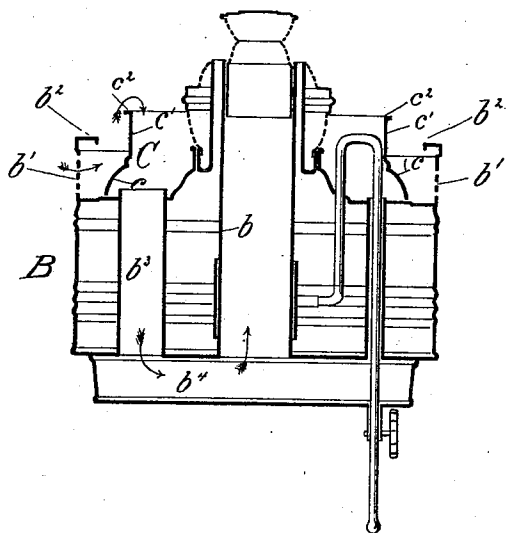
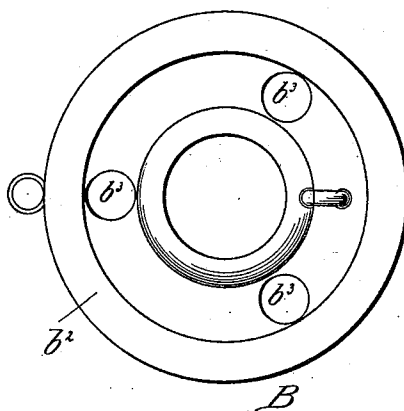


Fig. 3.



WITNESSES:

M. B. Allen
Clara B. Miller

Thomas Langston
INVENTOR

BY *John C. Coates*

ATTORNEY

UNITED STATES PATENT OFFICE.

THOMAS LANGSTON, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE
EDWARD MILLER & COMPANY, OF SAME PLACE.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 556,423, dated March 17, 1896.

Application filed July 20, 1895. Serial No. 556,648. (No model.)

To all whom it may concern:

Be it known that I, THOMAS LANGSTON, a citizen of the United States, residing at Meriden, New Haven county, Connecticut, have
5 invented a new and useful Improvement in Lanterns, of which the following is a specification.

My invention relates to that class of lanterns adapted to be used with an Argand or
10 other lamp requiring a central air-supply. It is intended to secure an equable supply of air to the flame under varying conditions of wind-pressure.

In the accompanying drawings, Figure 1 represents in elevation a lantern embodying my invention, the globe partly broken away to show the working parts. Fig. 2 is a vertical section of the lamp portion detached from the lantern. Fig. 3 is a top plan view of the
20 lamp only, the wind-guard being removed.

The same letters refer to like parts in the several views.

A designates a lantern-frame; A', a globe; B, an Argand lamp provided with inner air-supply tube *b*, vertical perforate flange *b'*,
25 horizontal flange *b*², air-tubes *b*³ and false bottom *b*⁴; C, a wind-guard consisting of curved portion *c*, vertical portion *c'* and flange *c*².

In the example of my invention illustrated
30 in the drawings the lantern frame or body A and globe A' may be of any convenient form. As shown the globe A' is adapted to rest upon the top of the lamp or fount B and to be moved vertically therefrom to light or to remove the lamp. The Argand lamp B has the ordinary
35 centrally-placed air-supply tube *b*. It is also provided with a perforate flange *b'* at its upper edge. As shown the flange *b'* is vertical and is turned inward to form a substantially horizontal flange *b*² at its upper edge. Passing downward through the lamp B is an open-ended air passage or tube *b*³ secured, as by
40 soldering, at the top and bottom of the lamp or fount. Three of such tubes *b*³ are shown in Fig. 3; but it is evident that the number of these tubes is immaterial. Secured to the bottom of the fount B is a false bottom *b*⁴ inclosing an air space or passage from the tubes
45 *b*³ to the central tube *b*. As shown the false bottom *b*⁴ is of less diameter than the bottom

of the fount B, so that a shoulder is formed adapted to engage with the bottom plate of the lantern A. Resting upon the top of the fount B, within the flange *b'* and preferably removable, is the annular wind-guard C.
55 While the particular form of this guard is immaterial, I prefer to enlarge its lower portion *c* and to surmount a substantially vertical portion *c'* by a flange *c*². It is of importance that the lower edge of the guard C rests upon
60 the top of the fount B between the perforate flange *b'* and the upper ends of the air-tubes *b*³ and that ample space is afforded between the inner edge of the flange *b*² or between the lower edge of the globe A' and the body of
65 the guard C for the passage of air.

The operation of my device will be readily understood from an inspection of the drawings. It will be seen that the lantern-globe is supported by the flange *b'*, so that the air
70 required to support combustion and to prevent overheating within the globe is drawn through the perforations in the flange. So much of this air as is required to support combustion passes over the wind-guard C. Part of
75 this supply passes through the ordinary perforations in the outer skirt of the burner to the outer mantle of the flame, while the rest is drawn downward through the tubes *b*³, between the true and the false bottom *b*⁴ of the
80 fount, and upward through the tube *b* to the inner mantle of the flame. The horizontal flanges *b*² and *c*², either or both of which may be advantageously employed in most forms of my device, assist in controlling the air passing
85 through the perforations in the flange *b'* and in preventing any disturbance of the flame. It is found in practice that a considerable increase in wind velocity does not alter the proportions of the air fed to the outer and inner
90 mantles of the flame, neither does such increase add to any disturbing extent to the volume of air supplied, as the excess entering at the windward side of the flange *b'* passes out at the other side.
95

It is clear that my device is capable of adaptation to lanterns of other style and shape than that shown and that many mechanical alterations may be made in my device without departing from my invention.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is as follows:

- 5 1. In a lantern in combination an oil-fount, a burner in said fount, a globe, a plurality of apertures for the admission of air between said fount and said globe, an air-chamber beneath said fount, a tube for the passage of air downward through said fount to said air-chamber and a central air-supply tube for the upward passage of air from said air-chamber to said burner, said air-chamber being otherwise imperforate, substantially as described.
- 10 2. In a lantern in combination an oil-fount,

a burner in said fount, a globe, a flange perforated for the admission of air between said fount and said globe, a wind-guard surrounding said burner, an air-chamber beneath said fount, a tube for the passage of air downward through said fount to said air-chamber and a central air-supply tube for the upward passage of air from said air-chamber to said burner, said air-chamber being otherwise imperforate, substantially as described.

THOMAS LANGSTON.

Witnesses:

GEO. L. COOPER,
CLARA B. MILLER.