

(No Model.)

D. W. CORBET.
LANTERN.

No. 580,123.

Patented Apr. 6, 1897.

Fig. 1.

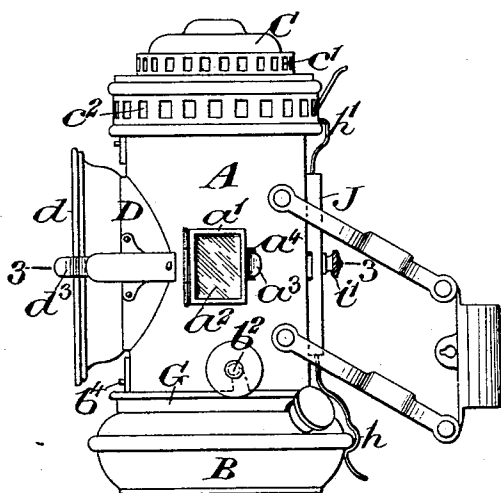


Fig.2.

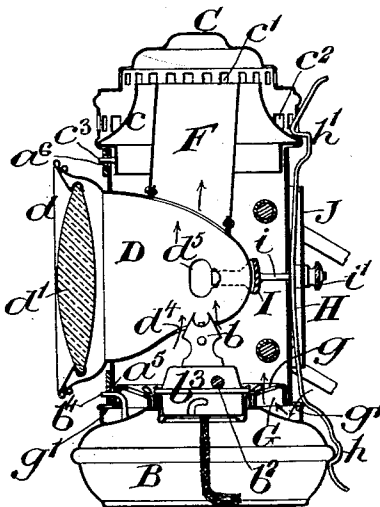
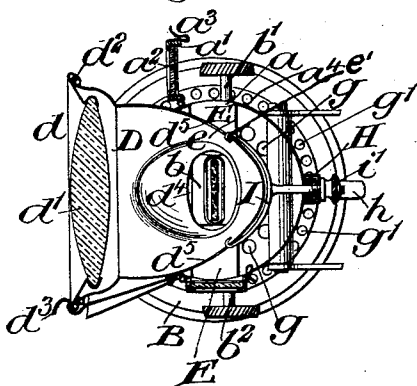


Fig. 3.



Witnesses:-
George Barry Jr.
R. B. Sward

*Inventor:-
Dennis W. Corbet
by attorneys
Brown & Ward*

UNITED STATES PATENT OFFICE.

DENYS W. CORBET, OF BROOKLYN, NEW YORK.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 580,123, dated April 6, 1897.

Application filed February 26, 1896. Serial No. 580,905. (No model.)

To all whom it may concern:

Be it known that I, DENYS W. CORBET, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Lanterns, of which the following is a specification.

My invention relates to an improvement in lanterns, and more particularly to that class known as "bicycle-lanterns."

One object of my invention is to provide a lantern of the above class which will be practically non-extinguishable except by opening the front or one of the side light-doors.

A further object is to provide a lantern which will feed air to the flame in an indirect manner, so that sudden puffs of wind will not affect the flame, and, furthermore, to connect the side light-openings of the reflector with the openings in the casing of the lantern by passage-ways which will permit the passage of light and access to the interior of the reflector for purposes of lighting the lantern, while preventing the admission of air from the interior of the casing through the side light-openings in the reflector.

A further object is to provide the top of the lantern with a wind-guard and secure a flue to the reflector, the upper end of the said flue being extended up into the interior of the said wind-guard.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a side view of the lantern. Fig. 2 is a vertical central section from front to rear of the same; and Fig. 3 is a transverse section on the line 3 3 of Fig. 1, one of the side light-doors being shown swung open.

The casing or body portion of the lantern is denoted by A, and a fount B is removably secured in position on the bottom of the said casing, and a cover C is removably secured to the top of the said casing.

A reflector D is removably secured within the body portion A, and its forward portion is extended without the body portion, to which is hinged a lens-holder d , carrying a suitable lens d' . This lens-holder is hinged at one side, as shown at d^2 , and at its other side is held closed by a suitable latch d^3 , secured to

the side of the reflector exterior to the body portion A.

The reflector D is preferably of parabolic form and is provided with an opening d^4 in its lower portion within the body portion A, which opening is large enough to admit the upper end of the burner or wick-holder b , of the fount, the said opening being sufficiently large to allow a free air communication around the said wick-holder from the air-space within the body portion A into the reflector D. The bottom of the reflector D is preferably bent slightly upward to direct the draft of air into an upward direction toward the flame and to permit a practically equal circulation of air over and around the burner or wick-holder.

The body portion A is provided with side light-openings a upon opposite sides of the casing, the said openings being closed by hinged side light-doors a' , having suitable windows a^2 therein. These doors a' are held closed by a suitable spring-catch a^3 , which engages a notch a^4 in the body portion A.

The reflector D is provided with two side light-openings d^5 , opposite the openings a in the body portion A, and the side light-openings d^5 and a on each side of the lantern are connected by suitable passage-ways E, which passage-ways are entirely shut out from the air-space within the body portion A by suitable partition-walls e , so that air is prevented from being admitted to the reflector D through the said side light-openings d^5 .

The removable top or cover C is provided on its interior with an annular wind-guard c , which is preferably provided with annular curved walls spaced from the side walls of the cover or top C, the top of said wind-guard being considerably smaller than the bottom thereof.

The top C is provided with suitable rows of openings or holes c' c^2 . The row of openings c' is located about on a level with the top of the wind-guard c , and the row of openings c^2 is located between the top and bottom of the said wind-guard. The wind-guard is so shaped that when the air which passes through the openings c^2 enters the cover C it will be directed upwardly and out through the open-

ings c' , thereby increasing the draft. A flue F is attached to the top of the reflector D and is in communication therewith, the top of the said flue being extended up into the wind-guard c .

Proceeding to describe the means for feeding air to the flame, the fount B is provided with a draft-plate G, which draft-plate is interposed between the said fount and the bottom of the body portion A of the lantern. This draft-plate is held in position upon the fount by the burner, in the present instance by the laterally-extended stems b' b^2 of the wick-raisers, which extend over the top of the draft-plate G when the burner b^3 is secured in position on the fount. The draft-plate G is provided with two rows of openings or holes g' , the openings g being within the body portion of the lantern when the fount is in position and the openings g' being exterior to the body portion. The draft-plate G is made with steps, and the openings g within the body portion are formed in the substantially horizontal portion of the top step, and the openings g' , exterior to the body portion A, are formed in the horizontal portion of the lower step. The horizontal portion of the lower step also serves as an abutment upon which the bottom of the body portion A rests. The vertical portions of the two steps of the draft-plate have no draft-openings therein, and the vertical portion of the lower step rests upon the top of the fount B.

The fount is removably secured to the body portion A in the following manner: The fount is provided with a suitable hinge-hook b^4 , which passes through the wall of the draft-plate and enters an opening a^5 in the front wall of the body portion, and at its opposite side the fount is held by means of the downwardly-extended portion h of a spring-latch H, secured to the back of the body portion A.

The cover C is removably secured to the top of the body portion A in the following manner: The cover is provided with a hinge-hook or pin c^3 , which enters an opening a^6 in the body portion A, and at its opposite end it is engaged by the upwardly-extended portion h' of the spring-latch H.

The reflector D is removably secured in position in the following manner: The ends of a yoke I extend through a cut-away portion e' in the partition-walls e of the passage-ways E and are then bent over around the rear sides of the side light-openings d^3 in the reflector D. A screw-bolt i extends rearwardly from the yoke I through the wall of the body portion A, through the spring-latch H, and a casing J, which partially embraces said latch H. The end of the said screw-bolt i is engaged by a thumb-nut i' , whereby as the thumb-nut is screwed home it will hold the latch H and casing J against the body portion A and will firmly hold the reflector D in its position within the casing or body portion A.

By reason of the cut-away portions e' in

the passage-ways E the yoke is held against turning as the thumb-screw i' is screwed home or unscrewed, and the reflector D is thereby also held against turning.

It will be seen that in the lantern as thus described the draft of air which feeds the flame must first pass downwardly through the openings g' exterior to the casing A, and then turn at a sharp angle, as indicated by the arrows, (see Fig. 2,) before passing up through the openings g' within the casing. It will further be seen that after the air has entered the air-space within the casing A the only way in which it can enter the reflector D is through the opening d^4 around the wick-holder b . By connecting the side light-openings in the reflector with those in the casing the flame is prevented from being affected by any side draft through the said openings, as is now quite common, which side draft tends to cause the lamp to smoke. Again, by securing the flue F to the top of the reflector a good draft is insured, and by locating the wind-guard around the flue in the top of the lantern the rush of air through the openings in the top of the lantern will tend to further increase the draft rather than to blow down upon the flame and extinguish it.

It will further be seen that by holding the draft-plate G upon the fount at three points—viz., the two stems b' of the wick-raiser and the hinge-hook b^4 , passing through one of its vertical walls—any tendency to work loose or rattle is entirely obviated.

What I claim is—

1. The combination with the body portion of a lantern, of a fount adapted to be removably secured thereto and a draft-plate of step form spaced from the top of the fount and adapted to be secured between the fount and body portion, the said draft-plate having a series of openings through the horizontal portion of the upper step within the body portion of the lantern and a second series of openings in the horizontal portion of the lower step exterior to the body portion, whereby an indirect current of air is fed to the interior of the body portion, substantially as set forth.

2. In a lantern, the combination with a body portion having side light-openings therethrough, of a reflector within the body portion having side light-openings therethrough, a yoke the arms of which engage the walls of the openings in the reflector, a screw-bolt on the yoke, the said screw-bolt extending through the walls of the body portion, a thumb-nut engaging said screw-threaded portion for holding the reflector within the body portion and partitions forming passage-ways between the corresponding side light-openings in the reflector and body portion, the said partitions being cut away to admit the arms of the yoke therethrough for preventing the turning of the reflector within the body portion when the thumb-screw is screwed home, substantially as set forth.

3. In a lantern, the combination with a body portion having side light - openings there-
through, of a reflector having side light-open-
ings therethrough, a yoke the arms of which
5 engage the reflector, means for securing the
yoke and thereby the reflector to the body
portion and partitions forming passage-ways
between the openings in the reflector and
body portion, the said partitions being cut
away to admit the arms of the yoke there- 10
through to prevent the turning of the reflector
within the body portions, substantially as set
forth.

DENYS W. CORBET.

Witnesses:

WM. M. DUNHAM,
E. M. WATTS.