H. GERULDSEN.

LANTERN.

APPLICATION FILED MAR. 19, 1912.

1,041,065. Patented Oct. 15, 1912.

Fig. 1.

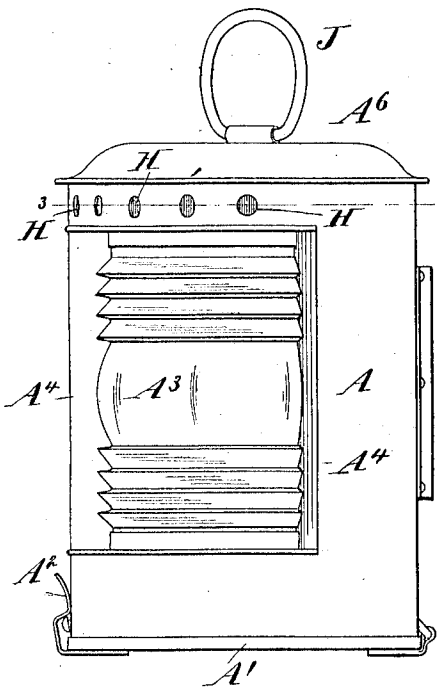


Fig. 2.

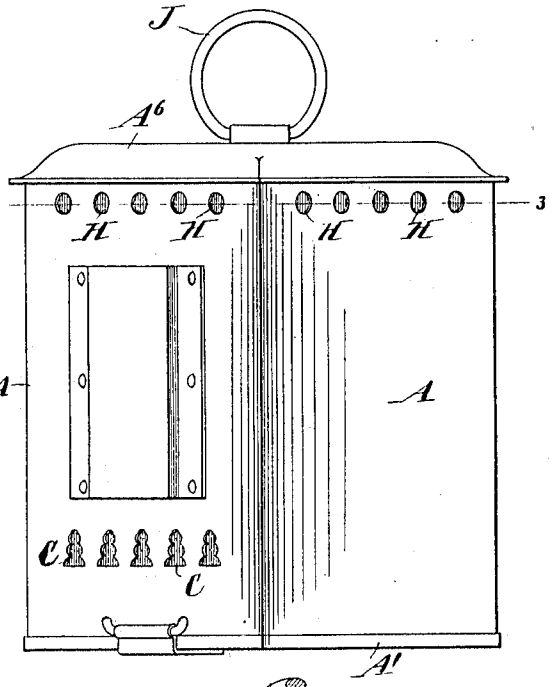


Fig. 3.

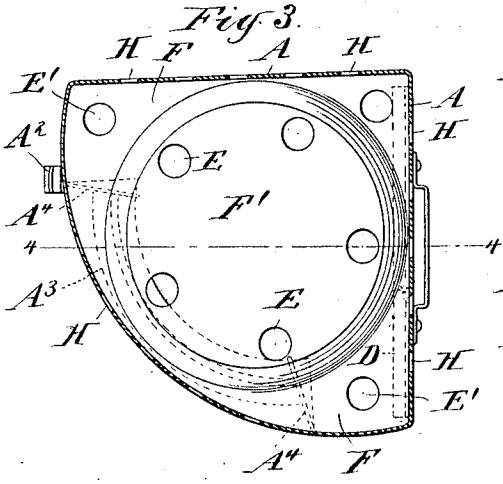
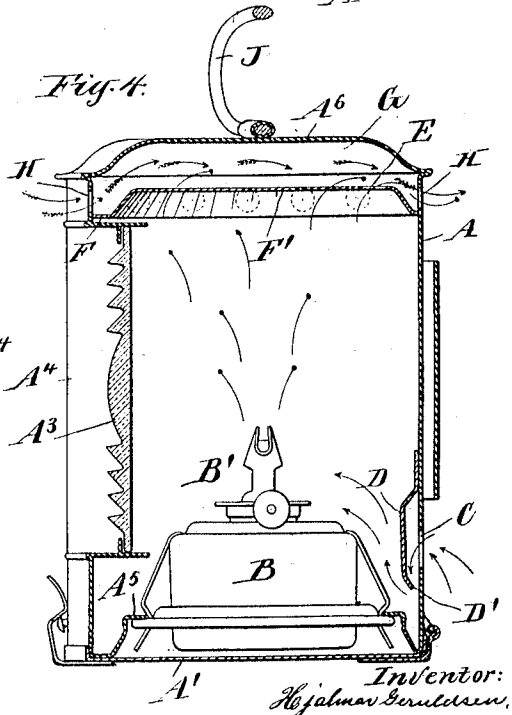


Fig. 4.



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UNITED STATES PATENT OFFICE.

HJALMAR GERULDSEN, OF NEW YORK, N. Y.

LANTERN.

1,041,065. Specification of Letters Patent. Patented Oct. 15, 1912.

Application filed March 19, 1912. Serial No. 684,852.

To all whom it may concern:

Be it known that I, HJALMAR GERULDSEN, a citizen of the United States, residing in the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Lanterns, of which the following is a specification.

The invention relates to oil burning lanterns and more especially to lights for vessels, such as the bow, stern, and side lights, and the object of the invention is to provide a lantern construction in which the passages for supplying air and carrying away the products of combustion are so arranged as to maintain the burner flame with certainty under the severe weather conditoins to which lanterns of this character are subjected, and by such arrangement to insure the desired burner flame without requiring the usual exterior dome or chimney.

The invention consists in certain novel features of arrangement and details of construction by which the above objects are attained, to be hereinafter described.

The accompanying drawings form a part of this specification and show a side-light constructed in accordance with the invention.

Figure 1 is a side view. Fig. 2 is a rear elevation. Fig. 3 is a horizontal section taken on the line 3—3 in Figs. 1 and 2, and Fig. 4 is a vertical section taken on the line 4—4 in the preceding figure.

Similar letters of reference indicate the same parts in all the figures.

The body A of the lantern is of the usual angular form in plan, equipped with a hinged cover or base for the bottom and a spring catch A^2 for holding the base A^1 in the closed position, and having a segmental glass A^3 of the Fresnel lens type, in the form of a quarter circle, abutting against the angular jambs A^4 A^4 at the sides.

The bottom A^5 of the lantern body has a circular opening in which is received and held an oil lamp B having a burner B^1 and which may be understood to be of any suitable construction.

Air is admitted to feed the flame through a series of openings C at the lower portion of one of the plane faces of the body at the rear and is deflected downwardly by a shield D extending nearly the whole width of the interior of such face, attached at its upper edge and having an angular lip D^1 at its lower edge serving to reduce the area of the passage thus formed and cause the delivery of the air to be distributed along the whole length of the lip and thus avoid direct currents to the flame.

F is a deck forming the top of the flame chamber and having a circular raised portion or platform in the form of a truncated cone as at F^1 immediately over the burner B^1, in which are openings E arranged circularly for the escape of products of combustion and heated air from the burner chamber to the space G between the deck and the closed top A^6 of the body. The angles of the deck may also be perforated as at E^1.

On all three faces of the body are openings H to the space G so that the wind, or air currents induced by the movement of the vessel, may enter freely from any direction, pass through the space G and escape through the corresponding openings H on the opposite sides or faces, thus producing a draft through the space which induces a current from the flame chamber through the openings E E^1 and draws in fresh air to supply the flame. The conical form of the walls of the platform F^1 serve to deflect upward the incoming air entering the openings H and prevent a downward current through the openings E.

The top A^6 of the lantern body is slightly domed and is provided with the usual ring J.

By reason of the arrangement of the air passages and their relative proportions, as described and shown, a steadily burning white flame is produced and the usual vertical chimney upon the top of the lantern is dispensed with, thus effecting a saving in the cost of manufacture and in the space occupied and also adding to the appearance of the lantern.

Although the invention is shown as applied to a side-light for a vessel it will be understood that bow and stern, mast-head and other lanterns may be similarly constructed, with only such changes as are necessary by reason of differences in form.

I claim:—

1. In a lantern of the character set forth, a body portion having air inlet openings in the rear wall thereof, a lamp in the lower portion of said body, a deck above said lamp, having openings therein for the escape of products of combustion from said lamp, and a closed top above said deck, forming

with the latter an air space, said body having openings in its walls on all sides between said top and deck below the upper face of said deck to permit air currents to traverse said space.

2. In a lantern of the character set forth, a body portion having air inlet openings in the lower portion of the rear wall thereof, a shield on the interior of said wall, covering said openings, a lip on the lower edge of said shield extending toward said rear wall, a lamp in the lower portion of said body, a deck above said lamp, a raised circular platform in said deck having inwardly inclined walls, said platform having openings for the escape of products of combustion from said lamp, and a closed top above said deck and platform and forming therewith an air space, said body having openings in its walls on all sides between said top and deck to permit air currents to traverse said space.

In testimony that I claim the invention above set forth I affix my signature, in presence of two witnesses.

HJALMAR GERULDSEN.

Witnesses:
CHARLES R. SEARLE,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."