

(No Model.)

2 Sheets—Sheet 1.

J. A. BLANKLEY & C. H. TALLMAN.

LANTERN.

No. 314,787.

Patented Mar. 31, 1885.

Fig. 7.

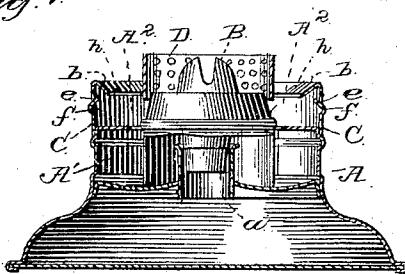
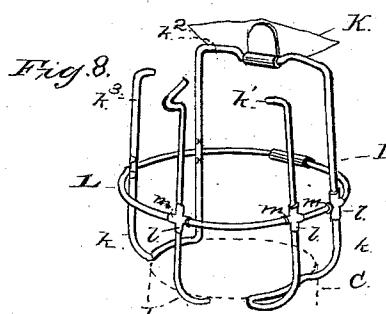
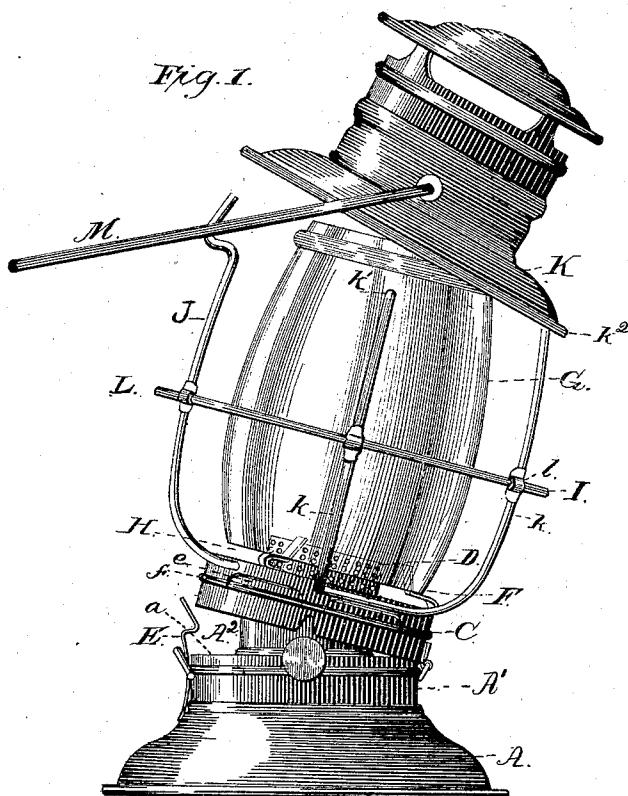


Fig. 1.



WITNESSES

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(No Model.)

J. A. BLANKLEY & C. H. TALLMAN. 2 Sheets—Sheet 2.

LANTERN.

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Fig. 2.

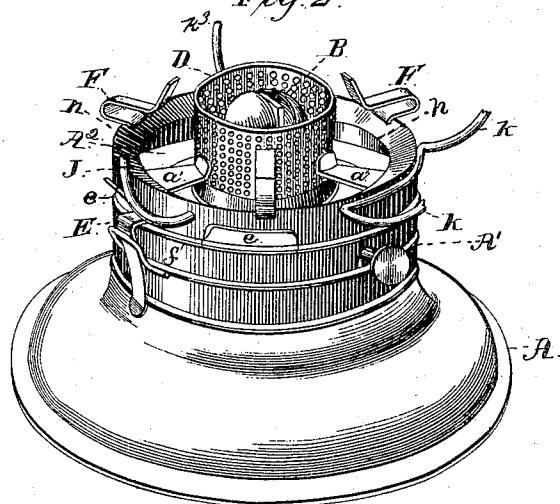


Fig. 3.



Fig. 4.

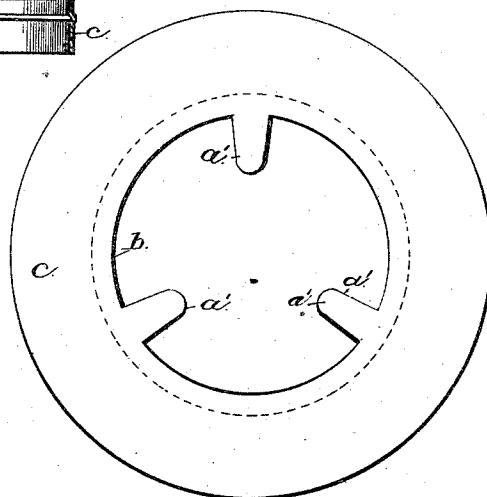


Fig. 6.

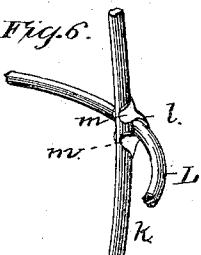
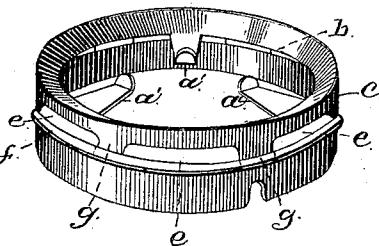


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES A. BLANKLEY AND CHARLES H. TALLMAN, OF BELLAIRE, OHIO;
SAID BLANKLEY ASSIGNOR TO SAID TALLMAN.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 314,787, dated March 31, 1885.

Application filed December 6, 1883. (No model.)

To all whom it may concern:

Be it known that we, JAMES A. BLANKLEY and CHARLES H. TALLMAN, of Bellaire, in the county of Belmont and State of Ohio, have invented a new and useful Improvement in Lanterns; and we do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Our improvements relate to single-globe lanterns for burning coal-oils, and adapted to be used in the open air or in currents of wind, or to be swung or raised up and down with considerable violence, without extinguishing the flame, and have for their purpose an increased cheapness and durability of such lanterns, as well as an increased efficiency in use.

Our invention therein consists, principally, in the novel construction of the globe-band, in the arrangement of the globe in relation to it, and in the construction of the guard, and in certain operative new combinations of parts, all as more particularly hereinafter specified in the description and in the claims.

For the better comprehension of what follows, reference should be had to the drawings connected with this specification, in which—

Figure 1 is an elevation of our lantern with the hinged portions a little separated; Fig. 2, a top perspective view with the globe removed; Fig. 3, a vertical section through the globe-band; Fig. 4, a plan view of the globe-band before stamping; Fig. 5, an enlarged view in perspective of the globe-band as stamped and completed; Fig. 6, an enlarged portion of the guard, showing how the breast-wire is secured; Fig. 7, a vertical central section of the lower portion of the lantern, and Fig. 8 a view in detail of the wire-guard frame.

Similar letters denote corresponding parts in each figure.

In the drawings, A denotes the base-section, in which is contained the oil-reservoir, an air-chamber, A', with an annular opening, a, into it above the reservoir, the burner-cone B, and its jacket, to neither of which is any novelty asserted. To this section the globe-band section C is hinged, so that the entire

lantern above it may be thrown back to give access to the burner and reservoir. This entire globe-band is made out of a single piece of metal, tin being usually employed, and is first struck out flat by a proper die, when it is of the form shown in Fig. 4, in which a' a' denote the arms for supporting the perforated burner-collar D, and the dotted annular line the divisional point between the inner flange, b, and the outer flange, c. This blank is then stamped by a suitable device, leaving the inner flange, b, sloping inwardly and downwardly at an angle of about ninety degrees, and the arms a' a' extending from the inner edges of this flange to the burner-collar D, and adapted to be secured to the same, thereby holding it in proper position, and movable only with the globe-band. The outer flange, c, is at the same time stamped in vertical lines, and has cut in it, preferably after it is stamped, slits, which subsequently become air-openings e, and are situated immediately above a bead, f, which extends all around this band, which serves to strengthen it at the points where the slits would weaken it. The portions of the slotted metal are forced inwardly with an upward inclination and become the air-openings e e, which extend entirely around the band, except in such portions, g, as are required to preserve the essential vertical strength of the band. Over the bead f and into one of these air-openings the spring-latch E finds a sufficient and convenient latch to enable it to hold the globe-band section securely to the base-section.

It will be noted that by reason of the flanges b and c there is formed an air-chamber, A², between them and the top of the air-chamber A', into which chamber currents of air which come in over the upper part of the globe-band and through the opening e may gain admission through an annular opening, h, between the flange b and the burner-collar. To the top of this globe-band are secured holding-arms F, preferably of brass, upon which the globe G rests, and is held in a central position over the burner and at a little distance above the top of the globe-band, so that there is between the bottom of the globe and the top of the globe-band a clear and unobstructed annular open-

ing, H. It will be observed that the bottom of this globe as constructed is a little less in diameter than the outer diameter of the globe-band, and considerably greater in diameter than the annular opening h. From this construction it results that currents of air arising either from wind or the motion of the lantern entering the opening H are deflected downwardly and inwardly by the flange b directly into a considerably body of air, more or less in a state of rest, in the chambers A² and A', and currents of air entering the openings e e are first deflected upwardly by the upward slope of such openings, and then downwardly by the inner walls of the flange b before they reach the chamber A².

In the instance of outward movements of air, the inclination of the flange b catches such air-currents and directs a portion out of the openings e e. When the lantern is swung from side to side, the air entering on one side expels an equal quantity at the other side, and substantial equilibrium of currents is maintained around the burner. So, whether the lantern is raised or lowered, the air forced in or expelled at the opening H is checked by the smallness of the openings a h or the action of the flange b and the openings e in a way well understood practically, and a substantial equilibrium of currents is maintained and the light produced. To the outer surface of the globe-band is secured the guard I, made of iron wire. The upright sections of the guard are made in two distinct parts, and in this feature the novelty consists. The part J consists of only one of these upright sections, which is made of a separate piece of wire from all the others, and it is secured at its lower end to the globe-band, and has its upper end hooked so as to form a catch passing through a proper opening in the reflector K. The other part, k, embraces all the remaining upright sections that may be required to complete the guard, and it is made by forming them together and at one operation of labor from one continuous piece of wire. One of the upright sections of part k is bent inward toward the globe at its upper end, k', to form a support to the reflector of the lantern, which closes down upon it. It then extends down to the side of the globe-band, thence along it at right angles a little distance, at which point it is secured, preferably by solder, then rises again at right angles as high as its first-named point, then is bent across at right angles, to which bent portion k² the reflector K is hinged, then descends again at right angles to the globe-band, and is again bent at right angles and extends along the globe-band, and is secured thereto by solder, and then is bent again at right angles and rises as high as the reflector, where its end k³ is bent in and serves as a support to the reflector K of the lantern. A breast-wire, L, passes around outside of the other wires and under straps l, vertically arranged, the ends of which are secured by

other straps, m, which wrap around the wires and are firmly secured, preferably by solder.

We are well acquainted with the continuous wire guard described in the patent of Chas. S. S. and Alfred L. Baron, No. 103,430, dated October 18, 1870, which is formed wholly of a single wire, one of the upper bends of which serves to hold a latch fastened to the under side of the reflector. This latch is required to be of strong and expensive spring-brass, which must be riveted to the reflector. The reflector is hinged to the vertical wires of two adjacent branches of the guard by means of separate wires wrapped around them and firmly soldered, which is also expensive and difficult of manufacture. By the means we employ we provide an equally effective and much simpler and cheaper guard, to which the reflector is hinged and latched.

An ordinary wire bail, m, completes the enumeration of the parts of our lantern, which having thus fully described, we assert therein as new and of our invention—

1. In a lantern, the combination of the base A, the globe G and its supports, and a globe-band stamped out of a single piece with vertical sides c and inclined top b, made integral therewith, substantially as and for the purposes set forth.

2. In a lantern, the combination of the base A, the globe G and its supports, and a globe-band stamped out of a single piece with inclined top b, and with openings e in its sides, substantially as and for the purposes set forth.

3. The combination, in a lantern, of the globe-band C, with arms a' made integral therewith, and the burner-collar D, supported by said arms, substantially as described.

4. The combination, in a lantern, of the globe-band C, with inclined top b, openings e, and arms F, the globe G, the clear open space H intermediate the bottom of the globe and the top of the globe-band, and the chambers A' A², substantially as described and shown.

5. In a lantern, the combination of the globe-band stamped out of a single piece, with vertical sides c, inclined top b, arms a', and openings e, the globe G, the arms F for supporting the same, the burner-collar D, supported by the arms a', the clear open space H between the bottom of the globe and the top of the globe-band, and the air-chamber A², substantially as described.

6. In a lantern, the base A, the globe G, the hinged globe-band C, having openings e in its sides, and the spring-latch E, secured to said base and adapted to engage with one of the openings e, substantially as and for the purpose set forth.

7. In a lantern, the combination of the hinged top and the wire guard, composed of the continuous wire k, k', k², and k³, the separate vertical wire J, hooked at its upper end, and the horizontal breast-wire L, substantially as described.

8. In a lantern, the combination of the hinged top and the wire-guard, composed of the continuous wire k , k' , k^2 , and k^3 , the separate vertical wire J , hooked at its upper end, the horizontal breast-wire L , and the straps l and m at the intersections of the breast-wire and the vertical portions of the guard, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES A. BLANKLEY.
CHARLES H. TALLMAN.

Witnesses:

D. W. COOPER,
W. M. DRUGAN.