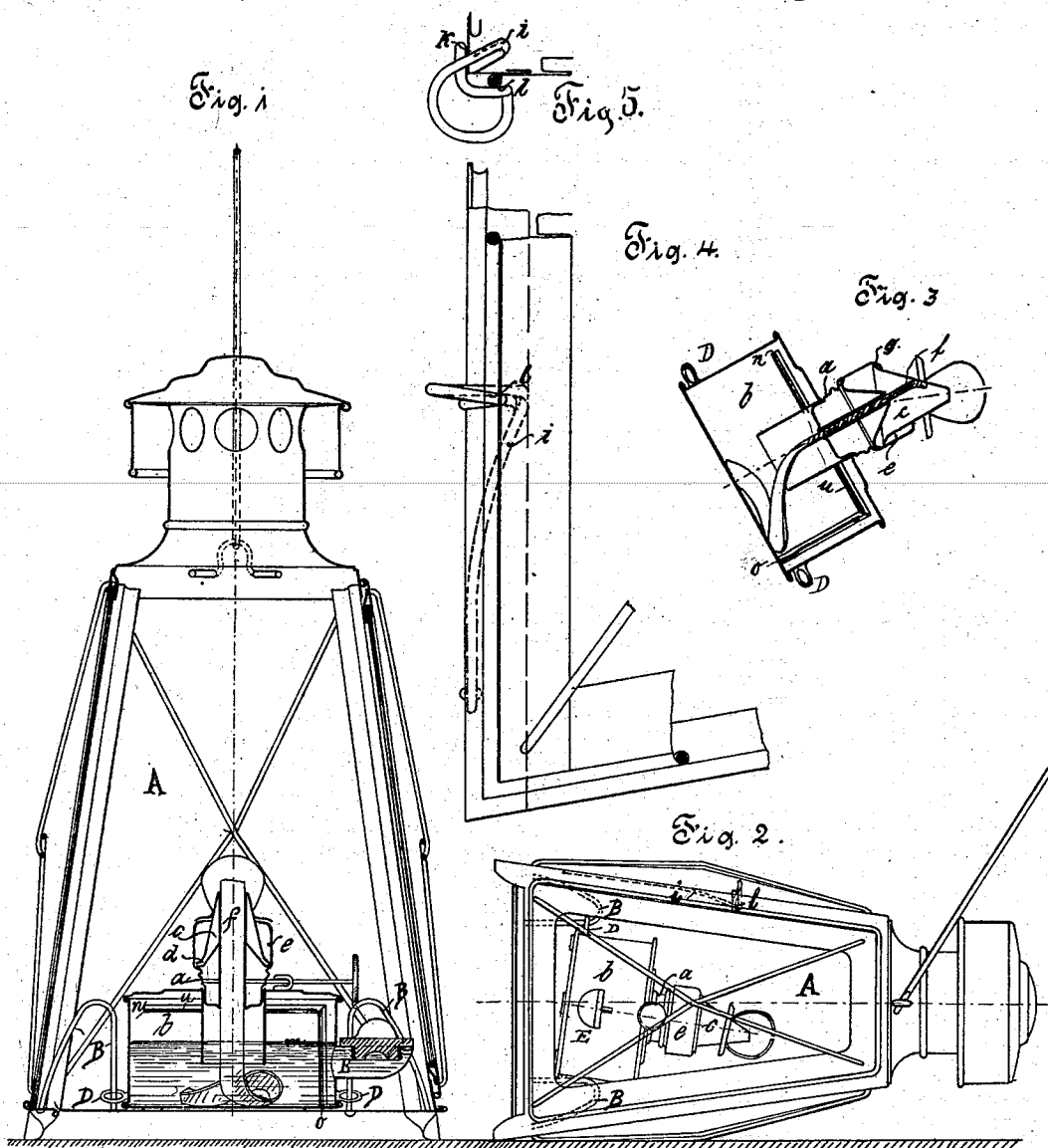


(No Model.)

A. ZIMMERMANN.
LANTERN.

No. 503,780.

Patented Aug. 22, 1893.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALBERT ZIMMERMANN, OF STUTTGART, GERMANY.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 503,780, dated August 22, 1893.

Application filed June 1, 1893. Serial No. 476,207. (No model.)

To all whom it may concern:

Be it known that I, ALBERT ZIMMERMANN, a subject of the King of Württemberg, and a resident of Stuttgart, Württemberg, Germany, have invented certain new and useful Improvements in Lanterns, of which the following is a specification.

This invention relates to an improvement in lanterns; and the object of my invention is to provide a lantern which is so constructed that in case the lantern is upset or inclined very much to one side it is extinguished automatically and thus there is no danger whatever that the oil running from the lamp can be ignited and explode.

The invention also consists in the construction and combination of parts and details which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical transverse sectional view of my improved lantern in upright position. Fig. 2 is a side-view of the same, on a smaller scale and showing it resting on its side. Fig. 3 is a vertical transverse sectional view of the lamp in inclined position. Fig. 4 is an enlarged detail sectional view of the lantern frame, and Fig. 5 is a horizontal sectional view through the same, showing the locking spring.

Similar letters of reference indicate corresponding parts.

On the bottom of the lantern A, an inverted approximately V-shaped wire B is fastened at each corner, the inner shanks of said V-shaped wires B passing through eyes D projecting from the side of the lamp b, so that the lamp can move up and down on the inner shanks of said wire B. The burner a of the lamp is not provided with a fixed cap, as is usual, but has its cap c connected with the remaining parts of the burner by a ball and socket joint. Said cap c is made conical and is provided at its bottom with an outwardly-projecting flange d, which can slide up and down in the cylindrical shell e of the burner, which shell is drawn in at the top to form the flange g. A wick f passes up through the burner, as shown.

If the lantern is inclined or placed on its side, as shown in Fig. 2, the lamp is inclined to such an extent that the upper eyes D slide to the angle of the upper V-shaped wires B and the eyes that are at the lower part of the

lamp, in the position shown in Fig. 2, rest against the bottom of the lantern. The burner-cap c, under the action of gravity swings to one side, so that the said cap passes over the wick guide, as shown in Fig. 3. The flange d of part of said cap rests against the inner flange g of the burner shell and the other part of said flange g rests against the bottom of the interior of the shell, thereby shutting off all air from the burning end of the wick, causing the flame to be extinguished.

The lantern is preferably made conical or tapering shape, so as to render it more difficult to upset the same.

The oil is poured into the lamp through the side filling tube E, which is so located that the oil can be filled into the lamp only up to the level of the line m, whereby an air space is at all times arranged between the surface of the oil and the top of the lamp, which prevents the overheating of the oil by the flame and also prevents undue evaporation of the oil. The lamp contains a tube u for carrying the vapors of oil that may be generated, the upper end n of said tube u communicating with the interior of the lamp at the top and the lower end communicating with the exterior air at o. As the vapors can pass off an overheating and explosion are prevented, and at the same time the tube u is so arranged that under no circumstances can the oil from the lamp pass out through the same. As the lamp is held in the lantern by the eyes and the V-shaped wires B, it cannot be removed from the lantern and be tampered with.

The several parts forming the lantern are securely folded and riveted together and the lantern is provided with a specially constructed hood to prevent drafts affecting the flame. The door is held closed by a spring rod i fastened to the left-hand corner rod of the lamp frame and passing through the same as at k, the upper end of said wire being bent to form a rounded hook l, as shown in Fig. 5. To open the door, all that is necessary is to pull the same against the hook, which is forced to one side to permit the door to pass, and in closing it is only necessary to push the door into its opening, when the swinging edge of the door acts on the hook l and presses the same to one side. The spring i then snaps back and keeps the door in closed position.

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

- 5 1. In a lantern, the combination, with a lantern frame, of inverted V-shaped wires fastened on the bottom of the lantern frame, and a lamp provided with protecting eyes that are guided on the inner shanks of said wires, substantially as set forth.
- 10 2. The combination, with a lantern frame, of inverted V-shaped wires held on the bottom of the same at the corners, a lamp having eyes mounted to slide on said wires, and a tilting burner cap on the burner of the lamp, substantially as set forth.
- 15 3. The combination, with a lantern frame, of a lamp held on the bottom of the same by wires fastened to the lantern frame and passing through eyes of the lamp, a burner shell,

and a sliding and tilting burner cap in said shell, substantially as set forth.

4. The combination, with the lantern frame, of a lamp, wires fastened on the bottom of the lantern frame and passing through eyes of said lamp, a burner shell on the lamp, the top of which burner shell is bent inward to form a flange, and a conical burner-cap in said shell, the bottom edge of said cap being bent outward to form a flange, to permit said cap to slide up and down in the shell and to be tilted in the same, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ALBERT ZIMMERMANN.

Witnesses:

W. BLOSSFELSZ,
CHR. DIETRICH.