F. DIETZ.

LANTERN.

APPLICATION FILED DEC. 22, 1913.

1,089,912.

Patented Mar. 10, 1914.

2 SHEETS—SHEET 1.

Fig. 1.

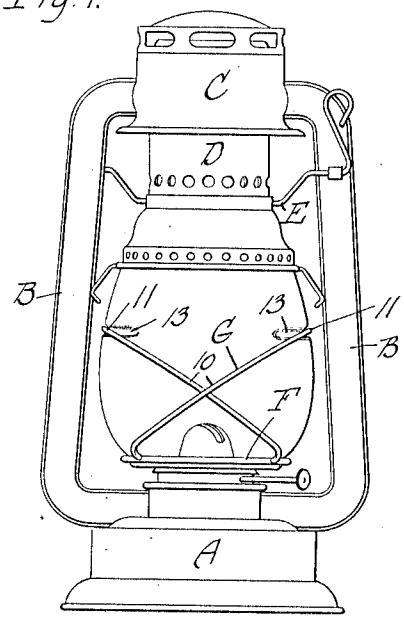


Fig. 2.

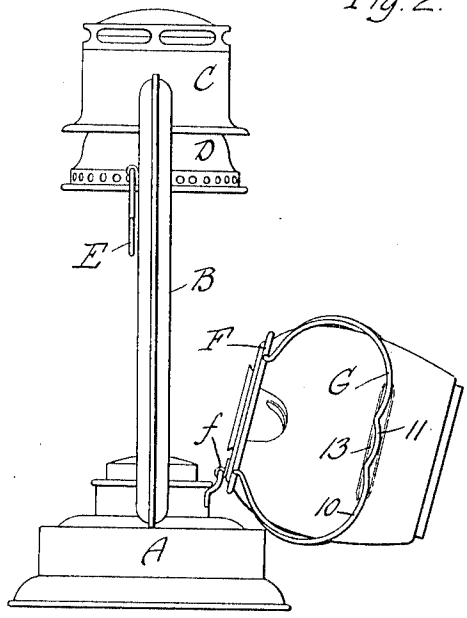


Fig. 3.

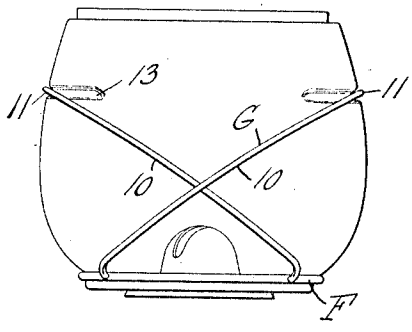
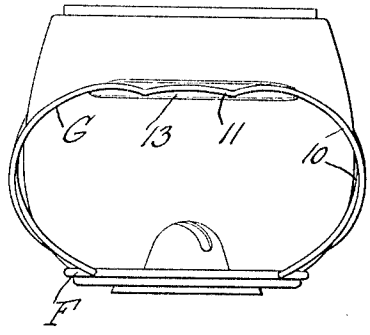


Fig. 4.



Witnesses.
A. G. Dimond.
A. L. McGee.

Inventor.
Frederick Dietz.
By Wickelem & Parker.
Attorneys.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

Fig. 5.

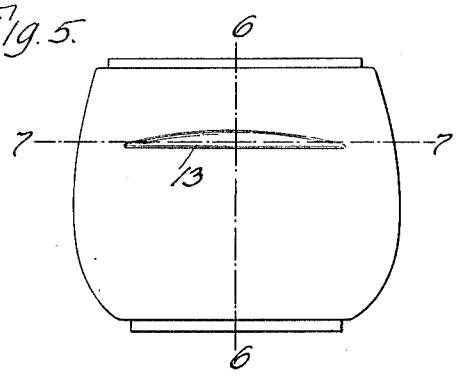


Fig. 6.

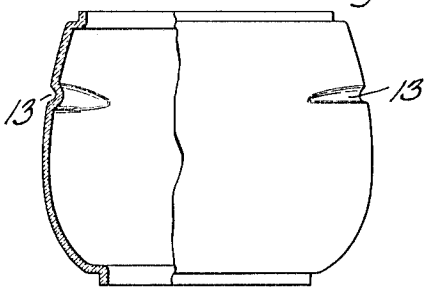


Fig. 7.

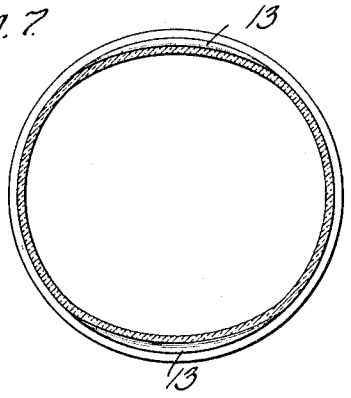


Fig. 8.

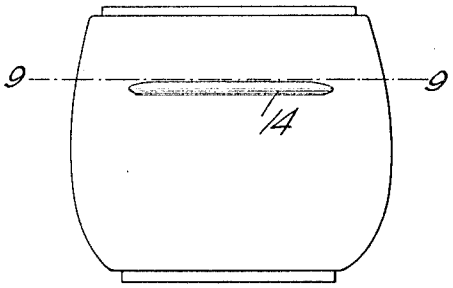


Fig. 9.

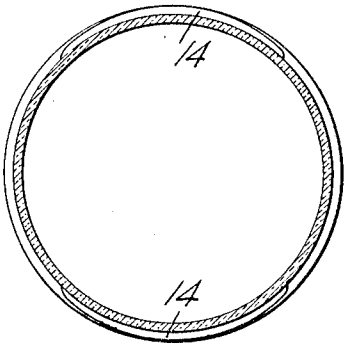
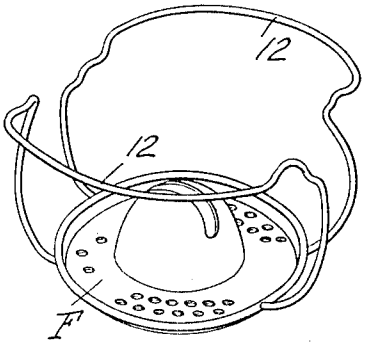


Fig. 10.



Witnesses.
A. G. Dimond.
A. L. McGee.

Inventor:
Frederick Dietz,
By Wickham & Parker.
Attorneys.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FREDERICK DIETZ, OF NEW YORK, N. Y., ASSIGNOR TO R. E. DIETZ COMPANY, OF NEW YORK, N. Y.

LANTERN.

1,089,912. Specification of Letters Patent. Patented Mar. 10, 1914.

Application filed December 22, 1913. Serial No. 808,077.

To all whom it may concern:

Be it known that I, FREDERICK DIETZ, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Improvement in Lanterns, of which the following is a specification.

This invention relates to that class of lanterns in which the globe support or plate is provided with a wire guard which grasps the globe by spring pressure and holds the globe detachably on the plate. In lanterns in which the plate is hinged to the frame in such manner that the plate and globe are swung or tipped back for exposing the burner, removing the globe for cleaning or for other purposes, it often happens that the globe is thrown out of the guard and broken because the guard does not hold the globe securely on the plate. This is due sometimes to the fact that the globes are not always of uniform size and that a globe which is a little smaller than the normal size is loose in the guard. When the plate carrying such a globe is swung back the globe drops away from the plate and stands abnormally high in the guard. Then, when the plate and globe are swung toward the normal position in the lantern frame, the upper end of the globe strikes the upper portion of the lantern and the globe is sometimes broken by the impact.

The object of this invention is to overcome these difficulties and to so construct the guard and globe that the guard takes a firm hold on the globe and holds the latter securely on the plate, while permitting the globe to be inserted into the guard and to be removed therefrom without difficulty.

In the accompanying drawings: Figure 1 is a front elevation of a tubular lantern provided with this improvement. Fig. 2 is a side elevation showing the globe plate swung up on its hinge. Fig. 3 is a detached enlarged front view of the globe, plate and guard. Fig. 4 is a similar view at right angles to Fig. 3. Fig. 5 is a detached side view of the globe. Fig. 6 is an elevation partly in section on line 6—6, Fig. 5. Fig. 7 is a horizontal section on line 7—7, Fig. 5. Fig. 8 is a side elevation of a modified form of the globe. Fig. 9 is a fragmentary horizontal section on line 9—9, Fig. 8. Fig. 10 is a perspective view of another form of guard.

Referring to Figs. 1–7, A represents the oil pot, B the tubes, C the top, and D the spring-pressed chimney or globe holder of a tubular lantern of the cold blast type. E represents the lifter shaft which is journaled on the tubes and connected with the chimney. All of these parts may be of any well known or suitable construction and arrangement.

F represents the globe supporting plate which may be connected with the lantern frame by a hinge *f*, and G represents the wire guard which is secured to the plate. The guard may be of the well known cross-wire type, as shown, in which the two oblique wire bows 10 cross each other on the front and rear sides of the lantern and have top portions 11 which impinge against the sides of the globe and partially encircle the same. The guard may, however, be of any other suitable construction in which the impinging holding portions partially encircle the globe, for instance, as shown in Fig. 10, in which the two wire bows 12 do not cross each other. The globe is formed on each side with a segmental horizontal groove or depression 13 in which the impinging top portions 11 of the guard engage. These grooves run out at the ends upon the smooth surface of the globe and are of sufficient length to provide for a secure engagement of the guard in the grooves but are so short as to leave the surface of the globe between the grooves of sufficient extent circumferentially to cause the release of the globe from the guard when the globe is so turned on the plate that the grooves are moved out of engagement with the impinging top portions of the guard and the latter bears against the smooth or unobstructed portion of the globe between the grooves. This construction permits the globe to be engaged with and to be disengaged from the guard by giving the globe a partial turn on the plate. Ordinarily each groove can occupy about one-quarter of the circumference of the globe. In that case the globe is engaged with the guard or disengaged therefrom by giving it a quarter turn on the plate. By constructing the globe and guard in this manner the spring action of the guard can be such as to grasp the globe with great firmness and so great as to make it very difficult, if not impracticable, to spring the guard out of the grooves, thereby holding the globe securely on the plate. The globe can nevertheless be read-

ily released from the guard by turning the globe on the plate.

If desired, the globe can be provided with segmental ribs 14 of proper length instead of grooves, as represented in Figs. 8 and 9. In this modified construction the impinging portions of the guard bear against the smooth surface of the globe above these ribs and the globe is engaged with or released from the guard by the same partial turning movement which is resorted to in the first named construction.

I claim as my invention:

1. The combination of a globe supporting plate, a guard thereon having holding top portions which partially encircle the globe and impinge upon the same, and a globe which has segmental holding devices which can be alined with the holding portions of the guard for securing the globe on the plate and which can be released from said holding portions by turning the globe on the plate.

2. The combination of a globe supporting plate, a guard thereon having top portions which impinge against the globe and partially encircle the same, and a globe having segmental holding devices of a circumferential length to engage the top portions of the guard for holding the globe on the plate, said holding devices of the globe being separated by unobstructed portions of the globe surface which when alined with the impinging top portions of the guard permit the globe to be removed.

3. The combination of a globe supporting plate, a guard thereon having top portions which impinge against the globe and partially encircle the same, and a globe having segmental grooves of a circumferential length to receive the top portions of the guard for holding the globe on the plate, said grooves of the globe being separated by unobstructed portions of the globe surface which when alined with the impinging top portions of the guard permit the globe to be removed.

Witness my hand in the presence of two subscribing witnesses.

FREDERICK DIETZ.

Witnesses:
ERNEST C. EVERETT,
FRED H. TWOMBLY.

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