

G. A. MACBETH.
LANTERN GLOBE.
APPLICATION FILED OCT. 5, 1910.

1,048,981.

Patented Dec. 31, 1912.

Fig. 1.

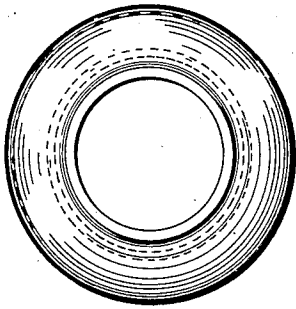


Fig. 2.

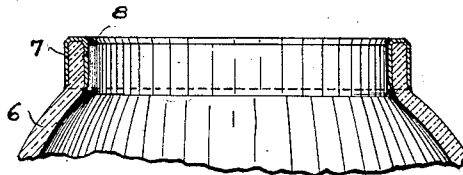


Fig. 5.

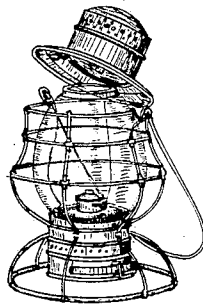


Fig. 3.

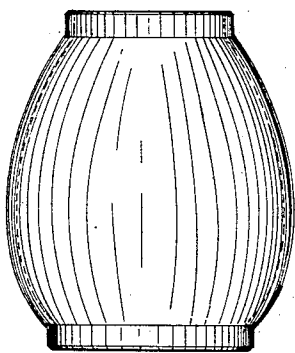
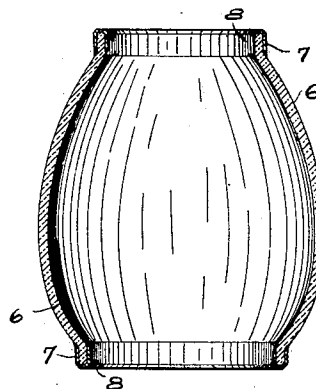


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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LANTERN-GLOBE.

1,048,981.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE A. MACBETH, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Lantern-Globes, of which the following is a specification.

This invention has reference to the provision of an improved construction of lantern globe or glass or a lamp glass, or globe of similar character which shall be less liable to breakage and will be less liable to injure the hands of any one using it, as will presently more fully appear.

The character of this improvement will more readily appear from examination of the accompanying drawings, wherein—

Figure 1 is a plan view of a lantern globe embodying my invention,

Figure 2 is a partial sectional view through the upper end, showing my improvement on a larger scale,

Figure 3 is an outside side elevation,

Figure 4 is a full transverse sectional view of a lantern globe, made in accordance with my invention, and

Figure 5 shows a lantern with lantern globe embodying my invention.

It has heretofore been the practice in the manufacture of devices of this character to grind either the upper or the lower ends, or both, as necessity may require, and also to counter-bore or slightly bevel off the corners of the globe so that it will present a smooth surface and one of sufficient accuracy such as is required to fit the fixture in which the globe is mounted. These grinding operations require considerable time and are the cause of a considerable amount of expense in the manufacturing operation, and the ground surfaces are the weakest point in the glass, that is, the point at which cracks or chips are most readily to be found. As is clear from Figure 5, the upper and lower end of the globe, when in lantern service, is in contact with the metal frame work of the lantern, and in being put in place, is often struck with some force, which will start a crack or chip at the edge. It is also found in practice, that after the globe has been in use for a time, the chips make the edges ragged and injure the hands of the users

when inserted for the purpose of cleaning out the inside, as is so frequently necessary in lantern use.

In carrying out my invention, I provide the edge of the glass article, as for example, the upper and lower edge of the globe as indicated in the drawing, with a protective metal covering, preferably of copper, which I attach by electroplating the same upon the glass, the metal being caused to form a deposit both inside and outside around the edge, thus fully protecting the latter and of sufficient thickness to afford an efficient reinforcing effect, as well as to smooth and round the corners to protect the hand of the user against cutting or injury.

It is further evident that where applied on globes of a larger size, the protective engaging ring sheath or double ferrule prevents injury to the edge of the glass when the globe is put down, as it often is, on a hard surface such as the street pavement or a metal plate, the sudden contact of the glass with the hard surface frequently starting a crack or defect therein, which is avoided by the use of my improvement.

Referring to Figure 2, it will be seen that I have therein shown in section a glass globe having a metal ring or double ferrule secured thereon, the mode of attachment being as already indicated, by electro-plating the metal so that it will rigidly and securely adhere and the metal is caused to extend downward as shown at 8 a sufficient distance upon the interior to thoroughly reinforce and protect the surface and edge of the glass all the way round, both inside and outside.

The use of the electro-plated ring as described serves the further function of reducing the amount of grinding or finishing required on the edge of the glass itself, and this largely compensates for the expense of the electro-plating operation.

The electro-plating may be accomplished in various ways, one method being to first coat the surface with a conducting material by a kind of silvering process similar to that used on mirrors, and then use such conducting surface for the electro-deposition of the copper.

Having thus described my invention and illustrated its use, what I claim as new and

desire to secure by Letters Patent is the following:—

A glass lantern globe having upon its edge a protective metal sheath formed by electroplating metal upon the edge of sufficient thickness to protect the edge from chipping.

In testimony whereof I have hereunto signed my name in the presence of the two subscribed witnesses.

GEO. A. MACBETH.

Witnesses:

PAUL SYNNESTVEDT,
L. A. MYERS.

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