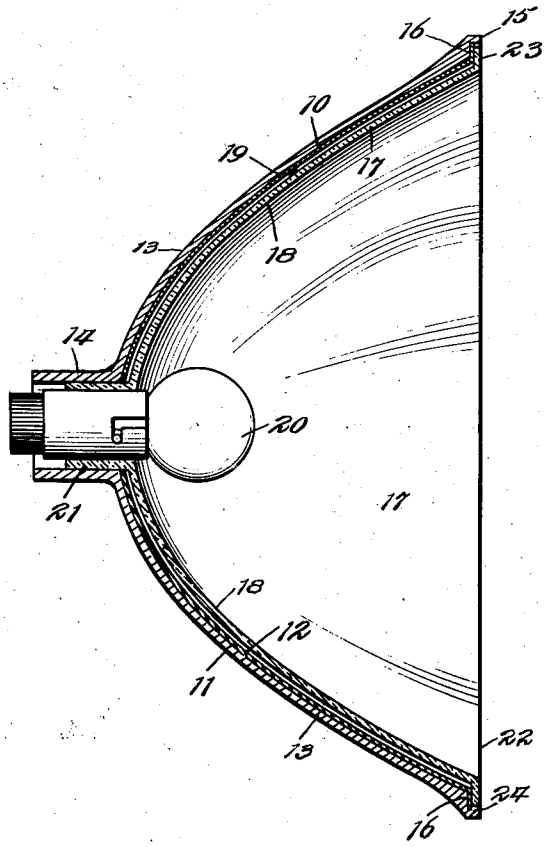
May 4, 1926. 1,583,269

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GLASS PROTECTOR FOR REFLECTORS

Filed Jan. 11, 1923



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Patented May 4, 1926. 1,583,269

UNITED STATES PATENT OFFICE.

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GLASS PROTECTOR FOR REFLECTORS.

Application filed January 11, 1923. Serial No. 612,131.

To all whom it may concern:

Be it known that I, BLASIUS BART, a citizen of the Republic of Switzerland, and resident of East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Glass Protectors for Reflectors, of which the following is a specification.

The invention relates in general to reflectors and more particularly relates to a guard for protecting the reflecting surfaces of reflectors. More specifically defined the invention relates to a combined metallic reflector of the type generally known as a parabolic reflector, together with a glass guard for the same, fabricated to form a single unitary article of manufacture designed to be mounted in a suitable frame to form a lamp.

Accordingly the primary object of the invention is to provide a simplified means for protecting a reflecting surface which protecting means will tend to insulate the reflecting surface from the heat effect of the source of light used with the reflector.

Still another object of the invention is to provide a simplified form of reflector, together with a shield for the reflecting surface which shield can be positioned permanently in place immediately following the manufacture of the reflector and thus insure the retention of the initial brilliant appearance of the reflector practically during the entire life of the article.

Another object of the invention is to provide a combined reflecting element and a guard therefor which will provide a means for mounting an electric light carrying socket or similar means for mounting the source of light and without necessarily providing separate parts for this purpose.

Various other objects and advantages of the invention will be in part obvious from a consideration of the method features of the disclosure and from an inspection of the accompanying drawings and in part will be more fully set forth in the following particular description of one method of practicing the invention and one form of mechanism embodying the mechanical features of my invention and combination of parts hereinafter set forth and claimed.

In the accompanying drawing the figure is a view in axial section taken through an article of manufacture, including a reflector and a guard therefor, co-acting to constitute a preferred embodiment of the invention and illustrating a complete lamp.

In the drawing there is shown a thin metal shell 10, which includes a curved portion 11 having on its inner face a reflector surface 12 corresponding in general to the type of reflectors generally known as parabolic reflectors. For the purpose of illustrating the invention in connection with a readily destroyed reflecting surface, it will be understood that the surface 12 is a thin layer of silver deposited electrolytically on a suitably shaped mold. As this reflecting layer is so frail that normally it is not of sufficient strength to maintain its own configuration, there is disclosed a reinforcing backing 13 of copper preferably also deposited by an electroplating operation, all as is well known in a method of producing silvered metallic reflectors.

The copper backing is provided with a tubular extension 14 which projects outwardly from the crown of the curved portion of the shell. The outer free edge 15 of the copper backing is provided with an annular recess 16 designed to form a seat for the guard 17 hereinafter more fully described. It will be understood that the reflector as thus far described is of well known form and it is required that the reflecting surface be formed exactly to correspond to some desired configuration. Usually this reflecting surface is formed with the mathematical accuracy characterizing the formation of optical instruments.

The guard 17 includes a part 18 which conforms substantially to and extends across the reflecting surface from the shoulder 16 to the point of conjecture of the curved portion of the backing with its extension 14. It is a feature of this disclosure that the surface 18 need not be formed with any degree of accuracy. It will be a usual practice to blow the same into the form of a thin glass shell so that it will conform in rough outline to the configuration of the curved portion of the reflecting surface, and of course with the size sufficiently less than the dimensions of the reflecting surface so that there will be a rough telescopic fit between the reflecting surface and the guard. From this disclosure, it will be understood that the guard need not physically touch the reflecting surface and preferably the glass guard is blown

to such size that there will be a shallow air space 19 between the reflecting surface and its guard.

Advantage is taken of this air space to provide a heat insulator between the source of light, indicated by the lamp 20, and the reflecting surface. For the purpose of sealing this air space, the glass guard is provided with an extension 21 formed integrally therewith and having a snug telescopic fit in the metallic extension 14. Usually, it will not be necessary to otherwise seal the connection between the glass and metal shells at this point, but it is within the scope of this disclosure to hermetically seal the extensions in order to defeat any possibility of air leakage into the air space. At its free edge 22, the glass guard is provided with an outwardly extending integrally formed flange 23, which has a more or less accurate fit on the seat 16. Usually it will be necessary to provide a hermetic seal between the glass flange and its seat and it is herein suggested that a spray of metal 24 be inserted between the flange and its seat.

Having thus described my invention, I claim:

A lamp comprising a thin metal shell including a curved portion having on its inner face a parabolic reflecting surface of electrolytically deposited silver and being incapable per se of maintaining its configuration, a copper backing for the silver surface, said backing provided with a tubular extension projecting outwardly from the crown of the curved portion of the shell, the outer free edge of the copper backing provided with an annular recess, a glass guard having a curved port conforming substantially to the silver reflecting surface, said guard provided with an integral extension having a snug telescopic fit in the metallic tubular extension, said glass guard provided at its outer edge with an integrally formed flange fitting the seat and a metal seal between the glass flange and its metallic seat.

Signed at New York city, in the county of New York, and State of New York this 23rd day of December, A. D. 1922.

BLASIUS BART.