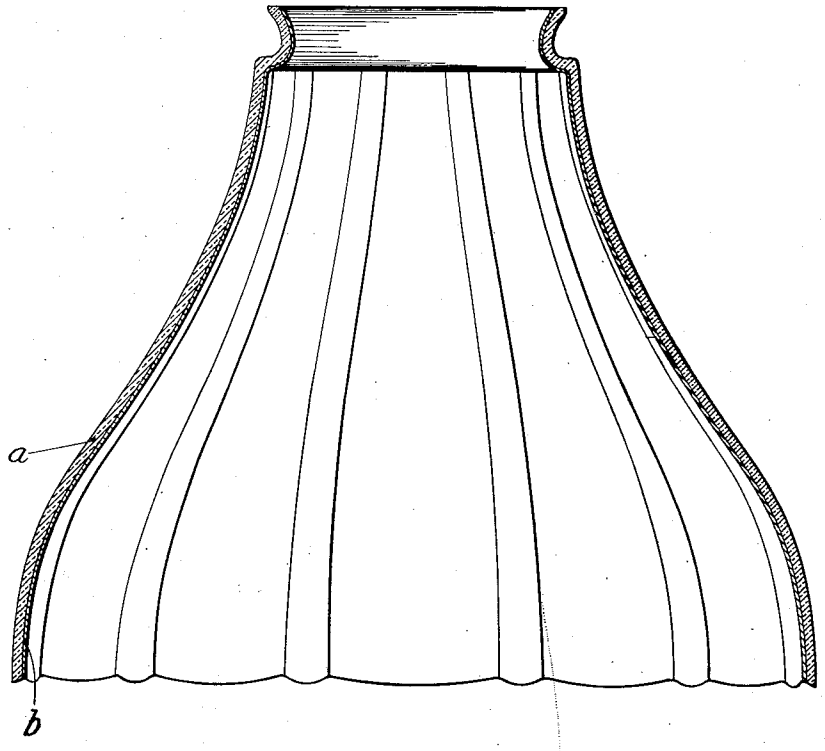
F. C. PARSCHE.

REFLECTOR.

APPLICATION FILED OCT. 24, 1912.

1,183,109. Patented May 16, 1916.



Witnesses:
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REFLECTOR.

1,183,109. Specification of Letters Patent. Patented May 16, 1916.

Application filed October 24, 1912. Serial No. 727,488.

To all whom it may concern:

Be it known that I, FRANK C. PARSCHE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Reflectors, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to light reflectors and contemplates an improved article of manufacture and a process for producing it.

While it will appear that my invention is capable of many and varied uses, I shall describe it in connection with the use I particularly have in mind,—as a reflector to be hung over an incandescent lamp or as a reflector for projecting the rays of light in a shaft, as in the case of an automobile headlight.

The peculiar advantages of my invention are most perceptible when the reflector is used as a hanging shade in a room, since it is a fundamental and important feature of my invention, that, although a mirrored surface is provided for reflecting purposes, the reflector as a whole is translucent, so that even though the most effective downward projections of the rays are secured, the room will be lighted in general by the diffused rays passing through the reflecting shade. Of course, in the case of indirect lighting, the directions are reversed, but the principle is the same.

It is of course well known that a mirrored surface is the best reflecting surface, but heretofore it has been possible to employ such a surface only at the expense of the general diffused light. In other words, such reflecting surfaces were necessarily opaque, and a translucent shade or transparent shade with a translucent metallic reflecting coating, was unknown. Now, however, I provide a reflecting shade the body of which is preferably translucent, but may be transparent, and upon the interior of which a coating of a platinum compound is provided. This coating is permanent, does not tarnish, and constitutes a true mirrored surface. When this shade is disposed over a lamp, the rays are reflected most effectively, and rays also pass through the platinum reflecting material and through the body of the article. The reflecting material itself serves to diffuse these general rays, but this diffusion is better and more even if a translucent body, as distinguished from a transparent one, is provided.

In the accompanying drawing I show a fluted body *a*, of transparent glass or translucent glass, or some other translucent material, this shade being neatly shaped and fashioned to set over an incandescent lamp, and being fluted in order to assist the reflecting properties of the interior surface as a whole, and as well to enhance the beauty of the article. Upon the interior of this body *a*, I provide a translucent metallic reflecting coating *b*, in this instance specifically a platinum compound. As before pointed out, this coating provides a true mirrored surface and rays of light are thereby projected into a shaft while other rays pass through the coating and through the body wherein they are diffused.

The body of the reflector may be glass or some other vitrified material and in the course of manufacture, I give the interior surface of the body, in the first instance, a coating of some salt solution such as sulfate of iron and sulfate of copper, and I find it convenient to carry this salt solution in a quantity of ocher or whiting merely as a carrying agent, which can be disposed upon the surface, this combination being in the proportion of one part of salt to two parts of ocher or whiting, by weight. With this preliminary coating, the article is fired to about 750 degrees Fahrenheit and the action of the salt destroys the alkalies which exist originally in the glass for instance and prepares the article for the reception of the reflecting material, acting itself as a flux. The salt forms a deposit on the glass to which deposit the reflecting material adheres. After this preliminary firing the article is thoroughly washed with water, thus removing the ocher or whiting and leaving the effect of the salt and some of the salt as a flux. The platinum compound (composed of fifty grams of platinum chlorid, one gram of German litharge, one gram borate of lead, and sufficient essence of lavender to make a thin paint-like mixture) is then painted on the prepared surface with a brush or in some other suitable manner, and is then fired to about 1000 degrees Fahren-

heit. Several coats may be provided and several firings may be had in order to get the best results.

I claim as new and desire to secure by Letters Patent:

1. The process of making a reflector which comprises giving a body of vitrified material an interior coating of a salt, firing the body with this preparation, washing the body after the firing, then applying a platinum compound reflecting coating, and then firing the body with this coating.

2. The process of making a reflector which comprises giving a body of vitrified material an interior coating of a salt, carried in a quantity of ocher or whiting, firing the body with this preparation, washing the body after the firing, then applying a platinum compound reflecting coating, and then firing the body with this coating.

3. The process of making a reflector which comprises giving a body of vitrified material an interior coating of a salt mixed with a quantity of ocher or whiting, firing the body with this preparation to a temperature of about 750 degrees Fahrenheit, washing the body after the firing, then applying a compound of platinum chlorid, borate of lead, German litharge, and essence of lavender, and then firing the body with this coating to a temperature of about 1000 degrees Fahrenheit.

In witness whereof, I hereunto subscribe my name this 21st day of October, A. D., 1912.

FRANK C. PARSCHE.

Witnesses:
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