

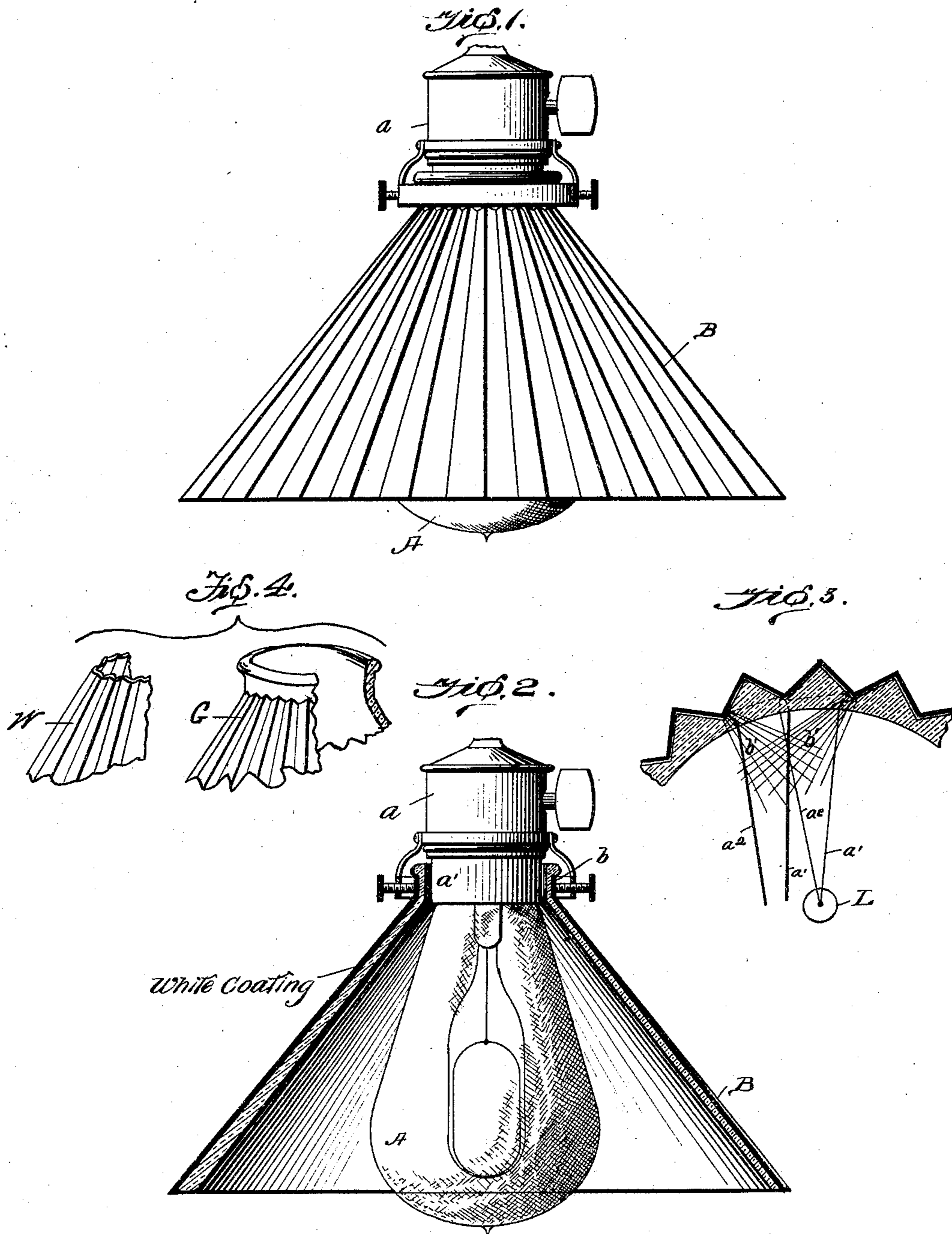
No. 775,741.

PATENTED NOV. 22, 1904.

E. L. ZALINSKI.
REFLECTOR.

APPLICATION FILED JAN. 8, 1904.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

EDMUND L. ZALINSKI, OF NEW YORK, N. Y.

REFLECTOR.

SPECIFICATION forming part of Letters Patent No. 775,741, dated November 22, 1904.

Application filed January 8, 1904. Serial No. 188,236. (No model.)

To all whom it may concern:

Be it known that I, EDMUND L. ZALINSKI, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Reflectors, of which the following is a specification.

As is well known, glass at angles suitably disposed is the best reflecting substance, while porcelain, opaline, and like reflectors, though not as effective in reflecting light, have the property of diffusing it better than glass. This property of diffusion is also found to some extent in light-colored enamels, white and light-colored paints, and other substances. Prismatic glass reflectors are well known and are found to possess many advantages in the art.

The object of my said invention is to provide a reflector which shall possess the reflecting qualities of the prisms and at the same time the diffusing qualities of said other substances, all as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, which are made a part hereof and on which similar reference-letters indicate similar parts, Figure 1 is a side elevation of a prismatic glass reflector used with an incandescent bulb; Fig. 2, a central vertical section through said reflector; Fig. 3, a diagrammatic view illustrating the operation of the reflector in reflecting and diffusing the rays of light; and Fig. 4, a view illustrating more clearly the construction wherein the coating or diffusing substance is formed as a separate plate or cone adapted to fit upon the outside surface of the reflector, said plate W being shown separated from the glass reflector G to better illustrate this form. The reflector B may be of any approved shape and may be used with a single bulb A, as shown, of any preferred form or with a cluster of bulbs or with any other form of light desired. The prisms are preferably on the outside and angular, ninety-degree angles being the best; but any form found suitable may be used, as will be readily understood.

In use a large part of the light will be reflected when the rays of light reach the outer plane of the prisms. A coating of porcelain,

opaline, enamel, paint, or other light-diffusing substance is put on the outside of the glass prisms, as indicated by heavy black line at the left in Fig. 2 and in Fig. 3 and by the part W in Fig. 4. This coating serves to reflect back and diffuse or break up a large portion of the rays which have passed through the prisms and more evenly distribute the light over the area of illumination. The outer coating of porcelain, enamel, paint, or other suitable substance may either be applied directly to the surface of the glass or be a contiguous cone or plate, as most clearly indicated in Fig. 4. The direct application is preferred, and said coating may be slightly translucent. In said Fig. 3 it will be noticed that a narrow space is left between the outer surface of the prisms and the inner surface of the diffusing coating, and in Fig. 4 the coating is more widely separated from the prisms and designated by the reference-letter W. This is for the purpose of clearly indicating that said diffusing substance may be a separate plate or layer of material formed or molded to fit and lay upon the prisms and be capable of being removed therefrom as a whole instead of being painted upon the outside of said prisms, so as to adhere thereto. It will be readily understood, of course, that such a construction may be used, if preferred, as such a diffusing coating could be made from various light-colored or whitish substances. It will also be understood that in the specification and claims the terms "light colored" or "whitish" mean that the substance used for the diffusing coating is white or so nearly white as to produce the results desired. While pure white is perhaps preferred, good results may be secured by using substances commonly referred to as "light-colored" or "whitish."

Where variation in the tinting of the illumination is desired, it can be secured by tinting the applied or superimposed porcelain, enamel, opaline, paint, or other substance as desired.

In operation the major portion of the rays of light is reflected by the glass prisms in the usual manner, while that portion which passes to the outside of said prisms is largely reflected, broken up, and diffused by the white

outside coating, thus saving and distributing where it will be of greatest use and value a considerable portion of the rays of light which would otherwise pass beyond, where not needed, and thus be practically wasted. In Fig. 3 the reflection by the prisms is indicated by the lines $a' a^2$, representing rays of light from a lamp L, while the further reflection and diffusion by the superimposed coating is indicated in a manner by the several fine lines b' .

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

1. A prismatic glass reflector having its outside surface covered with a separate reflecting and diffusing substance of substantially uniform distribution throughout and of a whitish character, substantially as set forth.

2. A prismatic glass reflector covered upon its outside with whitish substance possessing

diffusing qualities and of uniform distribution over the entire surface, substantially as set forth.

3. A prismatic glass reflector having a light reflecting and diffusing material of whitish character and of substantially even thickness mounted contiguous to its outside surface, substantially as set forth.

4. A glass reflector having prisms formed on its outside and said prisms covered with a coating of whitish character possessing diffusing qualities, substantially as set forth.

In witness whereof I have hereunto set my hand and seal at New York, N. Y., this 16th day of December, A. D. 1903.

EDMUND L. ZALINSKI. [L. s.]

Witnesses:

SIMON L. ADLER,

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