

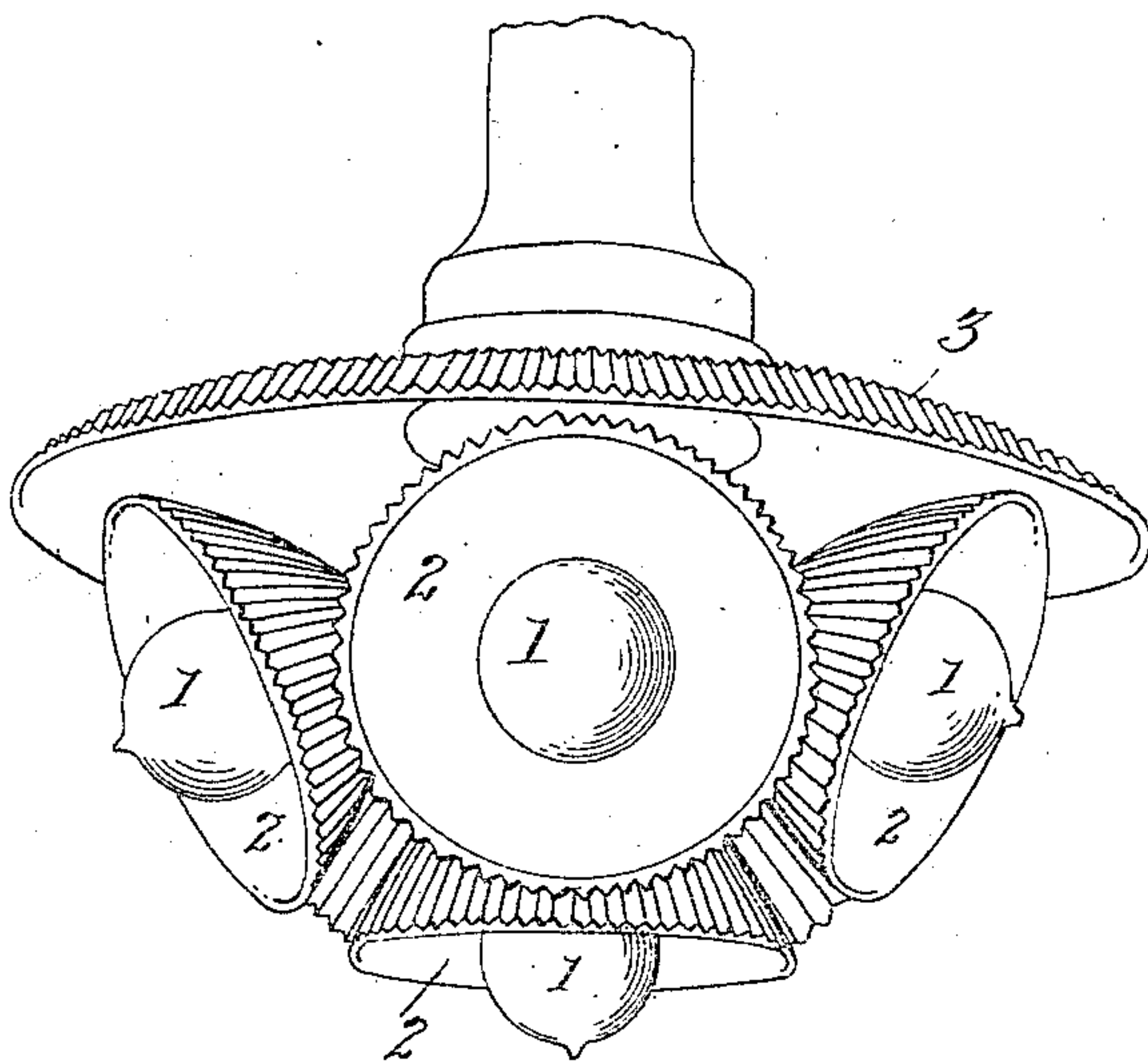
VAN RENSSELAER LANSINGH.

ILLUMINATOR.

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915,056.

Patented Mar. 9, 1909.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## ILLUMINATOR.

No. 915,056.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed October 20, 1906. Serial No. 339,845.

*To all whom it may concern:*

Be it known that I, VAN RENSSELAER LANSINGH, a citizen of the United States, and resident of New York, in the county of Kings and State of New York, have invented a new and useful Illuminator; and I do hereby declare the following is a full and clear description thereof.

My invention relates to an illuminating device, more particularly described as a reflector group, used generally in connection with incandescent electric lamps, although other suitable lighting devices may be employed.

It has been customary heretofore to place incandescent lamps in translucent shades, and also in prismatic glass reflectors, the latter usually having smooth inner surfaces, and having the prisms disposed in any of many different fashions on the outer surfaces. These reflectors serve to reflect the light of the lamp outwardly in the direction in which the open mouth of the reflector is pointed. There is, however, especially when the reflectors are of clear glass, an appreciable amount of light which passes through the reflector and under ordinary conditions simply radiates in a general direction opposite to that in which the reflector is designed to project the light of the lamp.

In my invention I arrange a number of lamps, each provided with a reflector of the general characteristics specified, in a group or cluster, and place near the group, in the general direction of the rays of light which pass through the reflectors, a larger reflector which covers the whole group of small ones and reflects in the general direction of illumination of the small reflectors the light which passes through them. This large reflector may vary considerably in nature, but a preferred construction is of glass, the inner surface smooth and the outer surface provided with prisms disposed in any of many suitable arrangements.

The results of using one or more lamps each provided with a prismatic reflector which transmits some light rays, combined with a large reflector for the whole group are obviously superior to those obtained by the use of the independent lamps and reflectors, since in the former case a measurable portion of light, which is practically lost in using the independent reflectors, is conserved and projected in the proper direction of illumination.

The light rays which pass through the prismatic glass reflectors which surround the lamps, are generally somewhat diffused by passing through the glass. The same is true if reflectors of an opalescent character are used, or if translucent shades be applied to the lamps. These rays, having passed through the small primary shades or reflectors, reach the large or common reflector from different directions, and in a different condition as to brilliancy from the direct rays from the lamp. The common reflector blends these rays, and projects them in the desired direction, causing them to intermingle with the rays projected by the primary reflectors, and modifying the character, as well as increasing the quantity of the mass of light projected. The secondary or large reflector is so formed as to receive and concentrate the light rays which pass through, or pass by the primary shades or reflectors, and to project and direct the rays so received, generally in the direction of the rays from the primary reflectors, but sometimes the secondary reflector may direct its rays from the primary shades or reflectors, this being due to the relative position of the reflectors.

The characteristics and advantages of my invention are hereinafter more fully pointed out in connection with a detailed description of the accompanying drawing which illustrates one embodiment of my invention.

The drawing is a perspective view of an illuminating cluster.

Reference numeral 1 designates one or any convenient plurality of lights, in this instance incandescent electric lamps; 2, prismatic reflectors, one for each lamp; in a preferred embodiment these reflectors are of clear glass, the inner surface being smooth and the outer surface provided with prisms disposed in any suitable manner—as shown in the drawing the prisms are radial, but any other approved arrangement of prisms may be substituted, and the reflectors may be of other material, such as opalescent glass or any suitable translucent substance. The reflectors as shown in the drawing are arranged so as to give a quite wide distribution of light but the relative positions of the reflectors 2 may of course be varied so as to project the light in any suitable way; 3 is a large reflector placed above the individual reflectors 2 in such a manner as to intercept all or most of the light rays in



the same general direction of illumination as the whole group, or, if desired, in another direction. This large reflector may be of widely varying material and form; in a preferred construction it is of clear glass with a smooth inner surface and prisms arranged on the exterior surface in any suitable manner; or, it may be of opalescent glass, translucent material other than glass, etc.

The group of lamps and reflectors is to be supported by any suitable fixture, so that the group of lamps and reflectors may be put in position as a unit. The construction of such a fixture may obviously be widely varied and any suitable form may be employed.

It is to be understood that I do not limit myself to details but contemplate any change which may be made within the spirit of my invention.

I claim:

1. An illuminator comprising a group of lights, a reflector inclosing each light and a

master reflector common to and inclosing all the lights and adapted to reflect the combined light in a downward direction.

2. An illuminator comprising a group of lights, an independent prismatic reflector for each light and a master reflector common to and inclosing all the lights and adapted to reflect the combined light in a downward direction.

3. An illuminating device comprising a group of lights, an independent prismatic glass reflector for each light and a prismatic glass master reflector common to and inclosing all the lights and adapted to reflect the combined light in a downward direction.

In testimony whereof I have affixed my signature in the presence of two witnesses.

V. R. LANSINGH.

Witnesses:

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