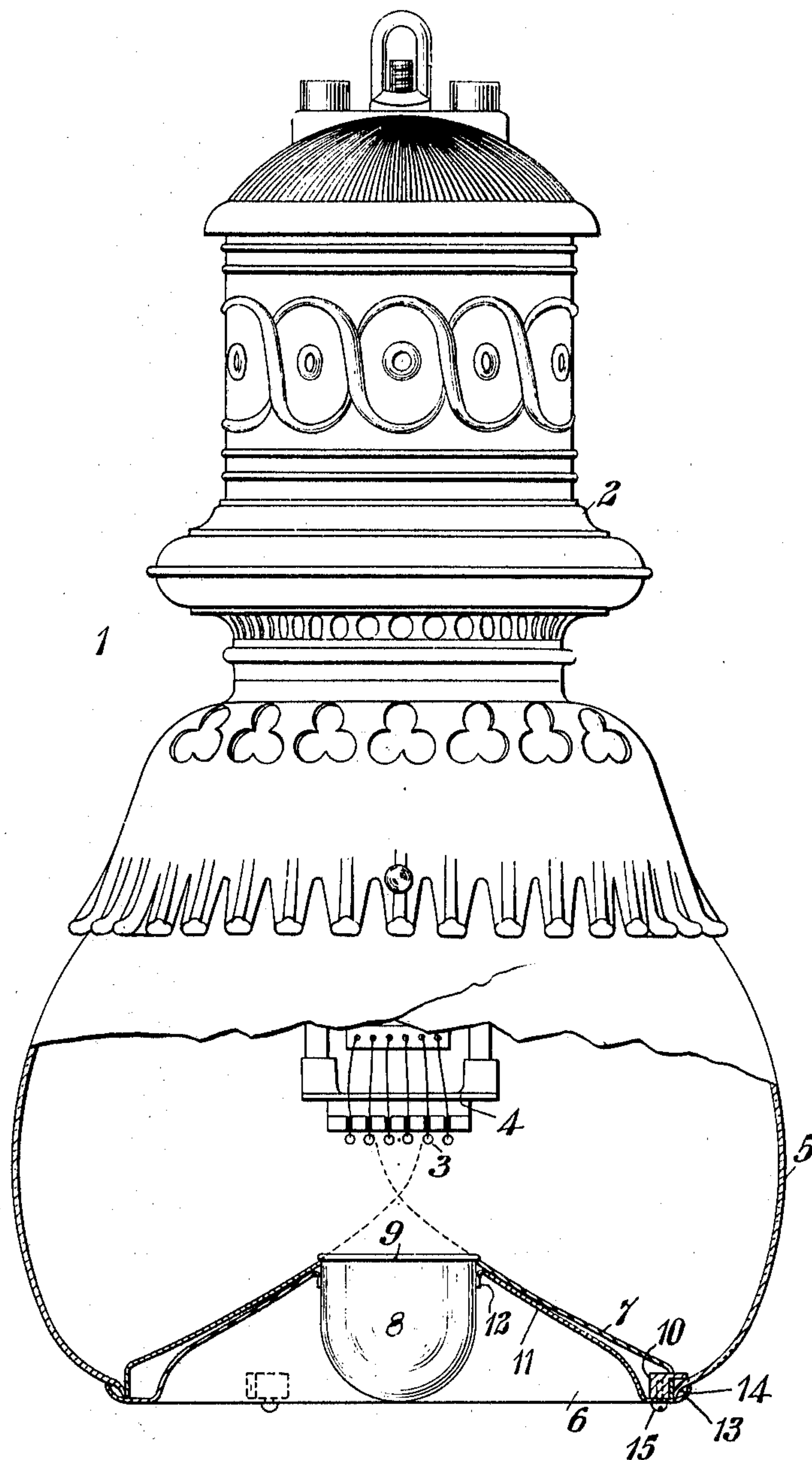


H. N. POTTER.
ELECTRIC LAMP.
APPLICATION FILED AUG. 3, 1903.

952,995.

Patented Mar. 22, 1910.



WITNESSES:

C. L. Belcher
F. H. Miller

INVENTOR
Henry Noel Potter
BY
Wesley S. Carr
ATTORNEY

UNITED STATES PATENT OFFICE.

HENRY NOEL POTTER, OF NEW ROCHELLE, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO NERNST LAMP COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

ELECTRIC LAMP.

952,995.

Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed August 3, 1903. Serial No. 168,032.

To all whom it may concern:

Be it known that I, HENRY NOEL POTTER, a citizen of the United States, and a resident of New Rochelle, in the county of Westchester and State of New York, have invented a new and useful Improvement in Electric Lamps, of which the following is a specification.

My invention relates to electric lamps and it has for its object to provide a device of this character with means whereby a maximum percentage of the light produced by the light emitting member or members may be utilized effectively and the desired illumination may be distributed efficiently over a large and well defined area. In order to effect these results, I have devised the means shown in the accompanying drawing, in which the single figure is a view, partially in elevation and partially in section, of a lamp in which the light emitting member or members are conductors of electricity only when heated to a comparatively high temperature. For convenience of description such light emitting members will be hereinafter designated as glowers.

While I illustrate and describe a lamp in which light emitting bodies of a specific type are employed, my invention has or may have a more general application and I therefore desire it to be understood that I employ the term "glowers" in a generic sense as designating any body of solid, liquid or gaseous material which produces light by incandescence.

As shown in the drawing, the lamp 1 comprises a housing 2 for certain of the operating parts of the lamp mechanism (not shown) and one or more glowers 3 supported by a suitable holder or frame 4, all as is usual in the art. In lieu of the usual glass globe within which the glowers are supported, I provide a globe 5 having a bottom aperture, in which is located a reflector 6. This reflector, as shown, is made double, though it might, if of proper form, be made as a single, integral structure. The upper or inner portion 7 is parabolic in form and is provided with a central opening in which is located a small glass globe or cup 8 having a projecting rim 9, which rests upon the edge of the reflector surrounding the opening and thus supports the globe in position.

The parabolic reflector 7 is so formed and disposed that the axis of the generating parabola is located below and at a suitable angle to the horizontal in order to insure the desired distribution of the light. The bottom edge of the reflector 7 is provided with a plurality of lugs 10 which rest upon the edge of the globe 5 adjacent to the opening therein and thus serve to support the reflector. Any desired number of these lugs may be employed, but three will generally be sufficient. The inner portion 11 of the reflector is provided with an annular series of tongues or prongs 12 which are bent downward and exert a slight spring action against the sides of the small globe 8, sufficient to hold it firmly in position but not sufficient to break the globe when it is subjected to the expansive action of the heat from the glowers. The lower edge 13 of the reflector 11 projects outward and upward beneath the edge 14 of the globe 5 and is fastened to the lugs 10 by means of screws 15, the reflector, as a whole, being thus securely fastened to the edge of the globe 5 and within the opening therein.

It will be seen from the structure and arrangement shown and described that a portion of the light emitted by the glowers will be reflected, by the parabolic reflector 7, outwardly and in an approximately horizontal direction and that another portion of the light will pass through the globe 8 and be diffused thereby and considerable portions of it will be reflected downwardly and outwardly by the portion 11 of the reflector, substantially the entire amount of light being, therefore, projected and distributed with approximate uniformity over a large area and little, if any, of the light being unproductive of useful illumination.

The specific devices employed in practicing my invention are obviously subject to variation from what is shown and I therefore desire it to be understood that the invention is to be limited only as limitations may be imposed by the prior art.

I claim as my invention:

1. In an electric lamp, a reflector located below the plane of the glower or glowers and provided with an opening directly beneath the same and with tongues or prongs around said opening, a cup or globe having a projecting rim and held in said opening

by said rim and said tongues or prongs, and means for supporting said reflector.

2. In an electric lamp, a globe having a bottom opening and a double reflector having peripheral projections between which is clamped the edge of the globe which bounds said opening.

3. In an electric lamp, a parabolic reflector located below the glower or glowers and provided with an opening directly beneath the same, a light-diffusing cup or globe having a projecting rim for supporting it in said opening, and means for supporting said reflector.

4. In an electric lamp, a globe having a bottom aperture, a double reflector having a central opening and located in said aperture and clamped to the surrounding edge

of the globe and a small light-diffusing globe supported in the central opening in the reflector.

5. In an electric lamp, a globe having a bottom aperture, a reflector having top and bottom reflecting surfaces and a central opening and removably located in said aperture and a small, light-diffusing globe removably supported in the central opening in said reflector.

In testimony whereof, I have hereunto subscribed my name this 15th day of July, 1903.

HENRY NOEL POTTER.

Witnesses:

WM. H. CAPEL,

THOS. H. BROWN, Jr.