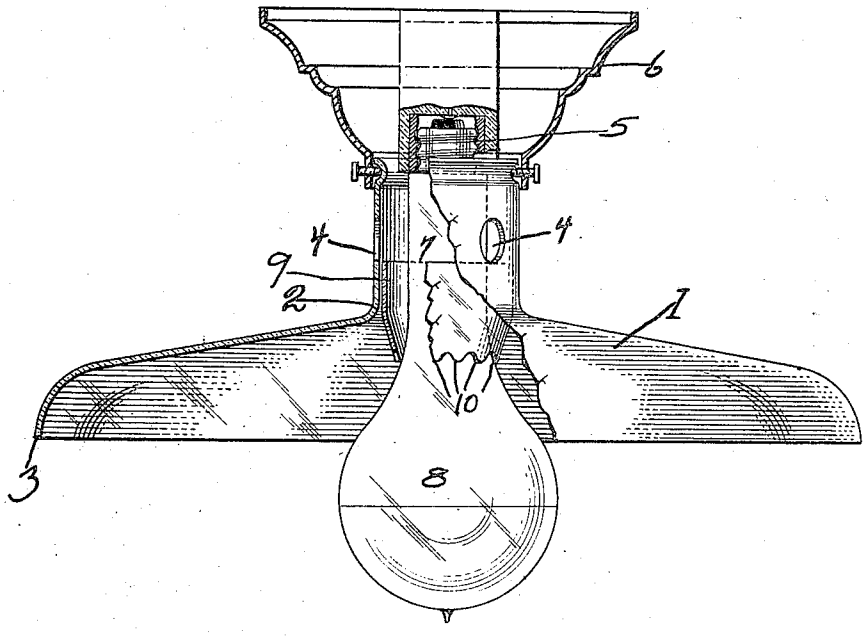
R. D. WARDELL.

LIGHTING UNIT.

APPLICATION FILED MAY 3, 1920.

1,422,244. Patented July 11, 1922.




INVENTOR
Robert D. Wardell
BY
Dodson and Roe
ATTORNEYS

# UNITED STATES PATENT OFFICE.

ROBERT D. WARDELL, OF DETROIT, MICHIGAN.

## LIGHTING UNIT.

1,422,244. Specification of Letters Patent. Patented July 11, 1922.

Application filed May 3, 1920. Serial No. 378,425.

*To all whom it may concern:*

Be it known that I, ROBERT D. WARDELL, a citizen of the United States, residing in Detroit, in the county of Wayne and State of Michigan, have invented a certain new and useful Improvement in Lighting Units, of which the following is a specification.

My invention has for its object to produce a semi-indirect light in which the eye of the observer will be entirely shielded from the intense glare of the incandescent filament which is so injurious to the eyesight in the present gas-filled type of incandescent lamp bulbs, and to accomplish this result without the interposition of a translucent bowl with its attendant difficulties of support and its highly objectionable tendency to collect dirt, insects, etc., on the inside, thus materially reducing the efficiency of the light.

My means of accomplishing the foregoing objects may be more readily understood by having reference to the accompanying drawings which are hereunto annexed and are a part of this specification, in which—

The figure is a side view of a lighting unit constructed in accordance with my improvement, part of the exterior walls being broken away to show the construction.

Similar reference numerals refer to similar parts throughout the entire description.

As shown in the drawings, the unit consists of a reflecting member 1 which is provided with a white reflecting surface which extends from the neck 2 of the reflector to the periphery 3 thereof. The inside of the reflector is preferably rough, because it throws off a quality of diffused light practically the equivalent of that which is thrown forth through the bottom of the enamel tip of the lamp. It is quite different from a polished surface for the reason that the polished white surface would act somewhat as a mirror throwing a spot light back into the eye of the observer when looking up at the fixture.

The neck 2 is very long and is provided with ventilating holes 4 of suitable number to permit the escape of the surplus heat, so as not to damage the socket 5 within a canopy 6.

Any standard socket may be employed, and other means of suspension than the canopy illustrated in dotted lines may be found desirable depending upon the place in which the fixture is to be used.

Intermediate the outside of the skirt 7 of the lamp 8 and the inside wall of the neck 2 of the reflector, I mount a bushing or collar 9 which is preferably made of white glass and is provided with a plurality of saw like teeth 10 formed upon its lower edge the upper part of this bushing is cylindrical and the lower part is downwardly and inwardly tapering to bring it to a size suitable to rest upon the neck or skirt of the lamp 8 where it commences to increase in diameter.

It will be apparent that the provision of the serrations 10 formed upon the lower edge of the collar 9 permits the passage of air therethrough and up and out of the openings 4 formed in the elongated neck 2 of the reflector 1. The lower half of the electric lamp bulb 8 is coated with white enamel which serves to effectively shield and protect the eye of the user from the intense glare of the incandescent filament.

Furthermore, it acts as a reflector and diverts or redirects such rays as fail to pass through the enamel on the lower surface of the reflecting member 1, to the reflector 1 whence it is re-directed to the working plane.

I have also described this lower part of the lamp bulb as being enamelled, but it will be obvious that any suitable means of rendering the glass of this part of the lamp bulb so that it will be translucent will be equally desirable.

It will be obvious from the foregoing description that the collar 9 not only effectually prevents any light from escaping into the neck 2 of the reflector 1 where it would be lost by choking, but it also serves to reflect back, the rays of light impinging upon its tapered walls, so that it really adds to the efficiency of the light.

Having described my invention what I regard as new and desire to secure by Letters Patent of the United States is:

1. The combination of an electric lamp bulb having its lower end translucent forming a shield which will re-direct some of the light rays upwardly, with a reflector surrounding said lamp bulb and having an elongated neck, there being a plurality of openings in said neck, a socket for said lamp, means to support said reflector, an annular cylindrical member mounted intermediate the skirt of the lamp and the neck of the reflector, a plurality of teeth on the lower edge of said annular member, the points of which engage the lamp bulb.

2. A lighting unit comprising a reflecting member having an upwardly extending neck, holes formed in said neck, a canopy, a socket within said canopy, a lamp bulb the neck of which is elongated, a bushing intermediate the neck of the bulb and the inside wall of the neck of the reflecting member which prevents the escape of light upwardly, the upper part of said bushing being cylindrical, the lower part tapering downwardly and inwardly, and resting on the neck of the lamp, teeth formed on the lower edge of said bushing which permits the passage of air upwardly and out of the holes formed in said neck on the reflecting member, the lower part of said lamp bulb being formed of translucent material to prevent the intense glare of the lamp and serve as a reflector.

3. The combination of an electric lamp bulb having its lower end translucent forming a shield which will redirect some of the light rays upwardly, with a reflector surrounding said lamp bulb and having an elongated neck, there being a plurality of openings in said neck, a socket for said lamp, an annular member mounted intermediate the skirt of the lamp and the neck of the reflector, a plurality of teeth on the lower edge of said annular member, the points of which engage the lamp bulb, said member being shaped to re-direct the light rays to the working plane, and means to secure said reflector in position.

4. The combination of an electric lamp bulb having its lower end translucent forming a shield which will re-direct some of the light rays upwardly, with a reflector surrounding said lamp bulb and having an elongated neck, there being a plurality of openings in said neck, a socket for said lamp, means to support said reflector, an annular cylindrical member mounted intermediate the skirt of the lamp and the neck of the reflector, a plurality of teeth on the lower edge of said annular member, the points of which engage the lamp bulb, said member being shaped to direct the light rays to the working plane and being formed of translucent material.

In testimony whereof, I have signed the foregoing specification.

ROBERT D. WARDELL.