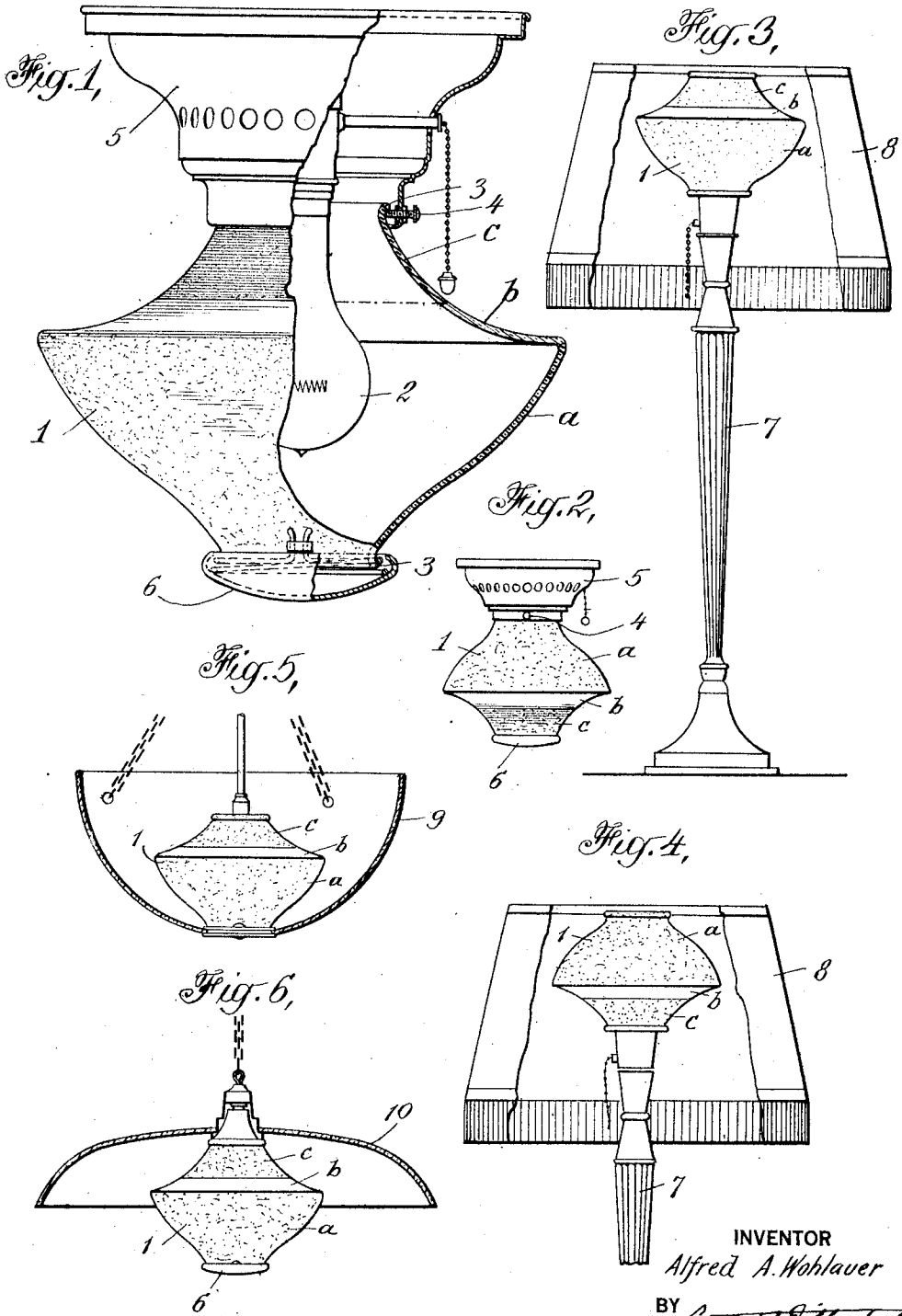


A. A. WOHLAUER.
ELECTRIC LIGHTING UNIT.
APPLICATION FILED JULY 30, 1918.

1,368,674.

Patented Feb. 15, 1921.



INVENTOR
Alfred A. Wohlaue
BY *Lester B. Williams*
ATTORNEY

UNITED STATES PATENT OFFICE.

ALFRED A. WOHLAUER, OF NEW YORK, N. Y.

ELECTRIC-LIGHTING UNIT.

1,368,674.

Specification of Letters Patent.

Patented Feb. 15, 1921.

Application filed July 30, 1918. Serial No. 247,351.

To all whom it may concern:

Be it known that I, ALFRED A. WOHLAUER, a subject of the German Empire, a resident of the city of New York, county of Bronx, and State of New York, have invented certain new and useful Improvements in Electric-Lighting Units, of which the following is a specification.

My invention relates to a device for modifying the light distribution of lighting fixtures.

Lighting fixtures as employed in the art of illumination may be grouped into three general classes; namely, direct, indirect, and semi-indirect, depending upon the class of illumination for which the fixture is intended. Each fixture is constructed to distribute the light in a fixed manner which is pre-determined by the design of the fixture.

The principal object of this invention is to provide a lighting unit or distributor which is adapted for use in a lighting fixture and by means of which the light distribution of the fixture may be easily changed at will, without requiring structural alteration of the fixture or the use of auxiliary appliances.

In the lighting of large office buildings it is desirable to employ a standard and uniform type of fixture throughout the entire building. It is necessary, however, at times, to vary the light distribution, depending upon the color of the walls and ceilings or upon the use to which the various offices are put. Heretofore this has required the installation of fixtures of different types but with my invention a standard type of fixture can be employed and the required changes in the light distribution can be easily, efficiently and economically effected.

My invention is also applicable to portable standing or table lamps where at certain times it is desired to throw the major flux to the ceiling in order to obtain a general soft illumination, and at other times to direct it downward for reading purposes.

I do not attempt to enumerate all of the uses of my invention, as it may be employed in a variety of different ways and combinations, covering practically the whole field of illumination, where it is desired at times to change the direction of the preponderance of the light rays of the light source.

In carrying out my invention, I provide a

device adapted to inclose the light source, said device being open at both ends and being engageable in the same shade holder at either end. The device is composed of two or more sections each having a distinctive light distributing characteristic, the section adjacent to the shade holder serving to support the other section or sections in either position of the device.

In the accompanying drawings illustrating my invention;

Figure 1, is an elevation, partly in section, of a ceiling fixture showing the device engaged at one end in the shade holder.

Fig. 2, is an elevation, on a smaller scale, of the same fixture showing the device engaged at its other end in the shade holder.

Fig. 3, is an elevation of a standing portable lamp showing the device applied thereto.

Fig. 4, is a fragmentary view of the lamp shown in Fig. 3, with the device in reversed position.

Fig. 5, is an elevation, partly in section, showing the device in combination with a bowl, and

Fig. 6, is an elevation, partly in section, showing the unit in combination with a reflector.

Referring to the drawings, 1 indicates the distributor composed of a plurality of sections or portions, each having a distinctive light distributing characteristic, and forming a unit which incloses the light source or lamp 2.

The unit is open at both ends and it is arranged to be engaged at either end in the same shade-holder. For this purpose it is preferably formed with a flange or rim 3 at each end for engagement with the screws or fasteners 4 of the usual shade-holder.

The light distributing characteristic of each section or portion of the unit is determined by its shape and by the material of which it is made. The various sections or portions may be made in any desired shape and of any suitable material, for instance, they may be made of an opaque material or of translucent, mirrored, prismatic, opalescent, or clear glass.

It is essential, however, that the various sections or portions have different light distributing characteristics, that is to say, that each section or portion shall function to modify or distribute the light in a distinctive

tive manner. For example, in the particular embodiment of the unit illustrated in the drawings, the section or portion (a) is designed and formed to reflect the light; the section (b), consisting of a band of clear glass, to transmit the light; and, the section (c) to diffuse the light. It will be understood that I do not limit myself to any particular combination of light directing agencies. If desired the unit may be composed of a combination of mirrored and clear glass, opalescent and mirrored, prismatic and clear, or any other suitable combination.

In the application of the invention shown in Fig. 1, the unit is represented as supported in the shade-holder of a ceiling fixture 5. In the position shown the unit acts to direct a preponderance of the light rays toward the ceiling thus producing an indirect or semi-indirect illumination depending upon whether the reflector section (a) is made of opaque or translucent material. Now when it is desired to change the fixture so as to direct the major flux downward or into the lower hemisphere, it is merely necessary to reverse the position of the unit and support it by its other end in the shade-holder as shown in Fig. 2. A detachable cap 6 is provided to close the lower end in either position of the unit.

In Figs. 3 and 4, I have shown the unit supported in its two positions on the standard 7 of a portable standing lamp. When thus used the top of the unit acts as a support for the usual lamp shade 8.

Other applications of the invention are illustrated in Figs. 5 and 6, the former showing the unit in combination with a bowl or dish 9, and the latter showing it in combination with a reflector 10. In both instances the light distribution of the fixture can be

changed by simply reversing the position of the unit in its holder.

From the foregoing description, it will be apparent to those skilled in the art of illumination, that my invention provides means for readily controlling the direction of the preponderance of light of any fixture.

The term "globe" as used herein is intended to cover light distributors of other than merely spherical shape.

What I claim as my invention and desire to secure by Letters Patent is:

1. An electric lighting unit comprising a light source, a globe supporting member, and an invertible globe surrounding the light source and supportable at either end in said supporting member, said globe being formed of a plurality of sections each having a different light distributing characteristic and whereby, upon inversion of the globe in the support, different distributions of the light are obtained.

2. An electric lighting unit comprising a light source, a globe supporting member, and an invertible globe surrounding the light source, said globe having a reflecting and a diffusing portion and being engageable in the support at either of said portions, whereby, upon inversion of the globe, different distributions of the light are obtained.

3. An electric lighting unit comprising a light source, a globe supporting member, and an invertible globe having a reflector portion and two diametrically opposite openings of substantially equal diameters, said globe being engageable at either opening in the supporting member, whereby, upon inversion of the globe, the preponderance of light flux can be directed upward or downward as desired.

ALFRED A. WOHLAUER.