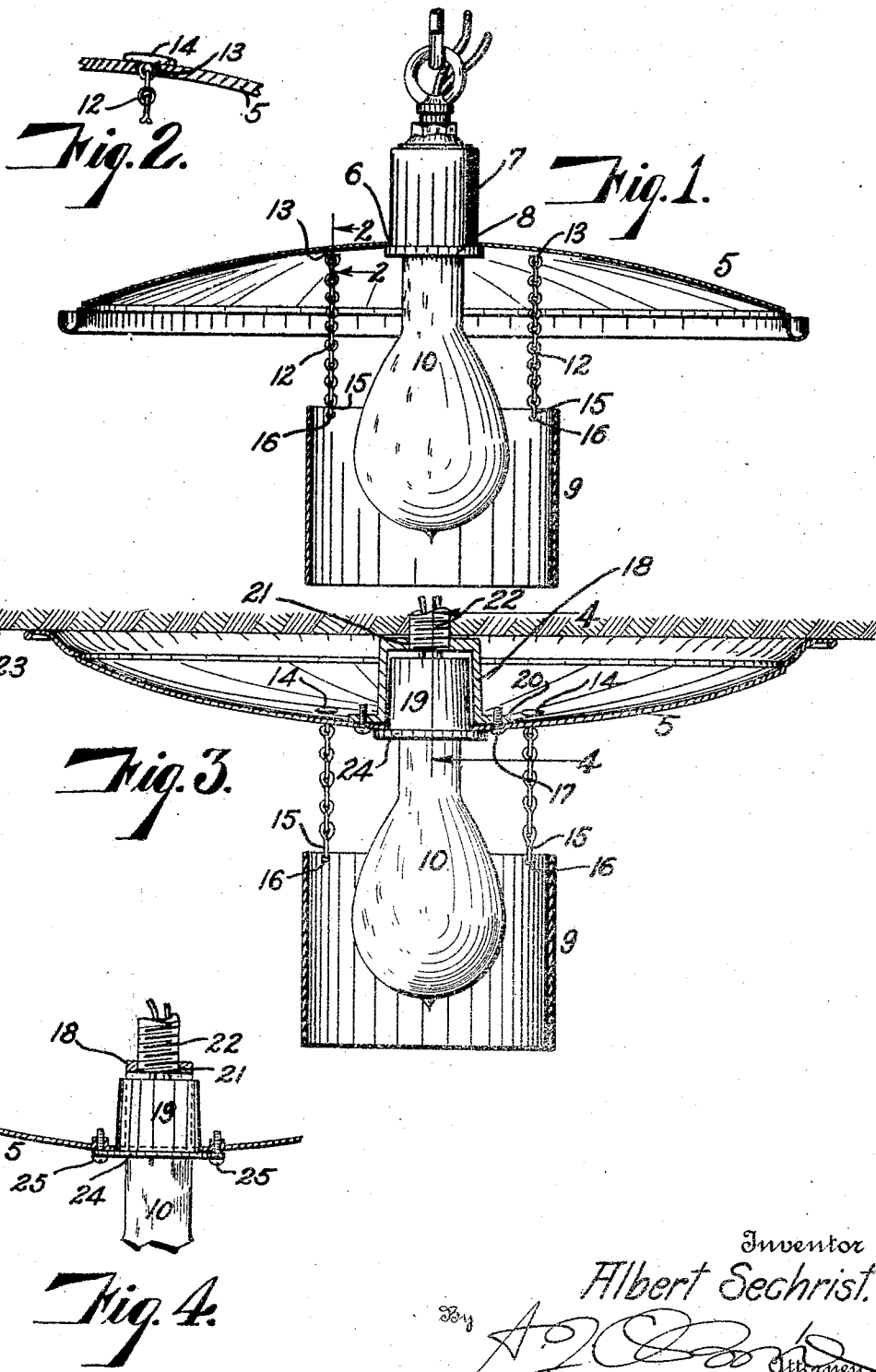


A. SECHRIST.  
 LIGHTING FIXTURE.  
 APPLICATION FILED JUNE 25, 1918.

1,304,387.

Patented May 20, 1919.



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# UNITED STATES PATENT OFFICE.

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## LIGHTING-FIXTURE.

1,304,387.

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*To all whom it may concern:*

Be it known that I, ALBERT SECHRIST, a citizen of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Lighting-Fixtures; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in lighting fixtures, my object being to provide a device of this character adapted to utilize to the desired extent the indirect rays of light and at the same time make use of the direct rays to the greatest possible extent consistent with the use to which the fixture is applied. Heretofore, the common fixture for indirect lighting has embodied a translucent glass bowl of such character as to soften the rays of light which pass therethrough, while the other or indirect rays are reflected from a reflecting surface above the bowl and below which projects the lamp which the bowl surrounds.

My improvement is more especially adapted for use for lighting shops, store houses and work rooms where it is exceedingly important to effect economy in the highest degree and consequently, my improvement is constructed with reference to utilizing the direct rays of light as far as possible, since to the extent that the direct rays may be used without detriment or annoyance to those who occupy the rooms to be lighted, the greater will be the lighting economy.

Having this idea in mind, instead of employing a bowl closed at the bottom I provide an opaque cylinder open at the bottom as well as at the top and into which the lamp projects, the cylindrical member being suspended from a reflector above, the reflector being supported from the lamp socket which in turn may be secured either to the ceiling or suspended therefrom as may be desired. The diameter and shape of the reflector and the diameter and length of the cylinder must be in correct proportion to the size of the lamp so that the direct rays of light from the filament of the lamp will be shielded from the eyes of the indi-

vidual observer, and so that the maximum of reflected and diffused light will be projected to cover the desired area to be lighted.

This construction and arrangement is based upon the principle that a person in a room to be lighted will not be annoyed by direct rays within a limited area directly below and surrounding a vertical line passing through the longitudinal center of the lamp, since under ordinary circumstances a person will not have occasion to direct his eyes toward the lamp on a vertical line or a line approaching the vertical. Consequently, the direct rays of light may be utilized through the open cylinder for lighting a considerable area directly below and surrounding the lamp without detriment or annoyance to those for whose benefit the light is employed.

Having briefly outlined my improvement, I will proceed to describe the same in detail reference being made to the accompanying drawing in which is illustrated an embodiment thereof. In this drawing:

Figure 1 is a vertical section taken through the reflector and cylindrical member of my improved fixture, the lamp and its socket being shown in elevation.

Fig. 2 is a section taken on the line 2-2, Fig. 1, the parts being shown on a larger scale.

Fig. 3 is a view similar to Fig. 1 but showing a slightly modified form of construction.

Fig. 4 is a section taken on the line 4-4, Fig. 3, the socket and a fragment of the lamp being shown in elevation.

The same reference characters indicate the same parts in all the views.

Referring first more particularly to Fig. 1 let the numeral 5 designate a reflector which has a central perforation 6 adapted to receive the body 7 of a socket which is provided at its lower extremity with a collar 8 which forms a shoulder for supporting the reflector. As shown in this view, the lower surface of the reflector is concave, but it may also be convex, as illustrated in Fig. 3, if desired. From this reflector is suspended an opaque cylinder 9 which is open at the top to receive the lamp 10 which is connected to the socket, the cylinder being also open at the bottom for the escape of direct light rays from the lamp, these rays being employed to illuminate a limited area below and sur-

rounding the projected vertical axis of the lamp. The area illuminated by the direct rays may be regulated or controlled by varying the diameter and length of the cylindrical member. This member, as shown in the drawing is suspended from the reflector by chains 12. Three of these chains will be sufficient, and as shown in the drawing, they are threaded through perforations 13 formed in the reflector, their upper extremities carrying buttons 14 which are larger than the perforations, the lower extremities of the chains terminating in hooks 15 which engage perforations 16 formed in the upper portion of the cylinder. This is a very simple and economical method of supporting the cylinder and connecting it in proper relation with the reflector and maintaining it in proper proximity to and in relation with the lamp.

As shown in Fig. 1 the fixture is arranged to be suspended at any desired distance below the ceiling. In the construction shown in Fig. 3 the reflector is secured as by screws 17 to a bracket 18 which incloses a socket 19 of the lamp, the bracket having flanges 20 bent outwardly to receive the screws. This bracket has a threaded perforation 21 by means of which it is attached to an exteriorly threaded nipple 22 which projects downwardly from the ceiling, the nipple being connected with a junction box or other suitable device (not shown). In this case, the periphery or outer portion of the reflector bears against the ceiling 23, the reflector being perforated to receive the socket 19 of the lamp, the lower surface of the reflector engaging the collar 24 of the socket. By this construction and arrangement the reflector engages the porcelain portion of the socket which insulates it to a large extent from the heat of the lamp.

The cylindrical member 9 is suspended from the reflector in the same manner as in the construction shown in Fig. 1.

In the construction shown in Figs. 3 and 4, the socket is connected with the reflector by screws 25 passed through perforations formed in the collar 24 and registering perforations formed in the reflector, the last

named perforations being threaded to cooperate with the screws.

From the foregoing description it is believed that the construction, manner of use and advantages of my improved lighting fixture will be understood without further explanation in detail.

The cylindrical member 9 is preferably composed of metal white enameled both interiorly and exteriorly. The reflector is also preferably composed of metal having its reflecting surface white enameled. The sockets 7 and 19 of the lamps are of the usual heavy porcelain construction, whereby they are well adapted to insulate the reflector from the heat of the lamp, thus avoiding the cracking of the enamel coating of the reflector.

Having thus described my invention, what I claim is:

1. A lighting fixture comprising a lamp, a socket therefor, a reflector perforated to receive the socket, the lamp extending below the reflector, a white enameled open ended metal member surrounding the lamp, and chains threaded through the perforations in the reflector, the said chains having buttons at their upper extremities to engage the upper surface of the reflector and hooks at their lower ends to engage openings with which the metal member is provided.

2. A lighting fixture comprising a reflector, a lamp extending below the reflector and a non-transparent member open at opposite ends suspended from the reflector, spaced therefrom and surrounding the lamp, the upper opening of said member being as large as the lower opening.

3. A lighting fixture, comprising a reflector, a lamp extending below the reflector, and a nontransparent member open at opposite ends suspended from the reflector, spaced therefrom, surrounding the lamp and extending below the luminous part of the lamp, the upper opening of said member being as large as the lower opening.

In testimony whereof I affix my signature.

ALBERT SECHRIST.