

L. ZAMBONI.
 MEANS FOR USE IN CONNECTION WITH COMBINED REFLECTORS OR SHADES AND ELECTRIC LAMPS.
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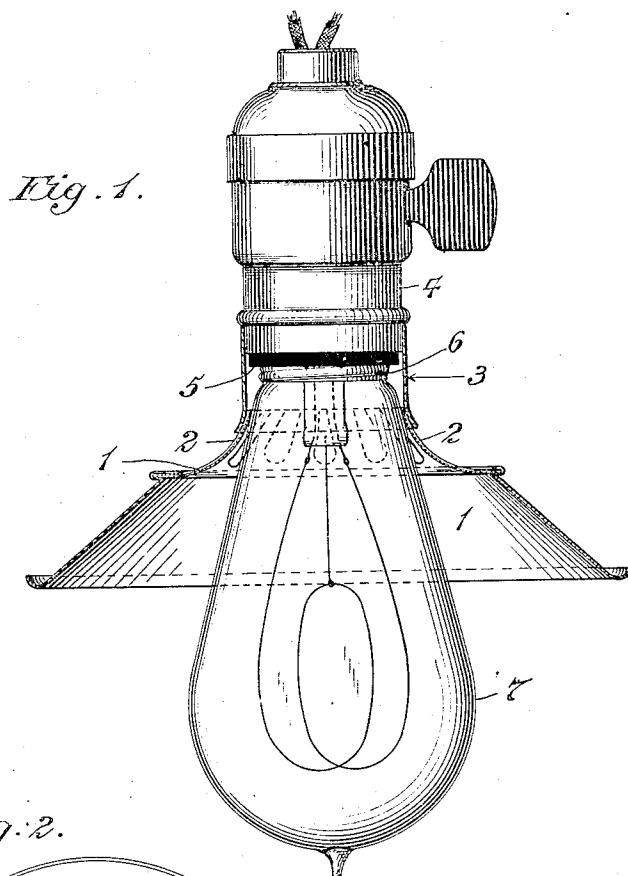


Fig. 2.

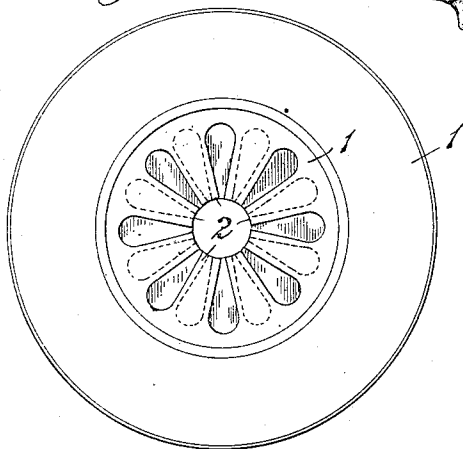
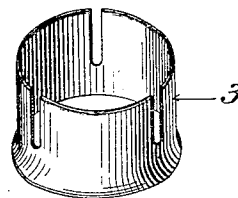


Fig. 3.



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UNITED STATES PATENT OFFICE.

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MEANS FOR USE IN CONNECTION WITH COMBINED REFLECTORS OR SHADES AND
ELECTRIC LAMPS.

935,348.

Specification of Letters Patent. Patented Sept. 28, 1909.

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To all whom it may concern:

Be it known that I, LAWRENCE ZAMBONI, a citizen of the United States, residing in the city of New York, borough of Manhattan, county and State of New York, have made a new and useful Invention in Means for Use in Connection with Combined Reflectors or Shades and Electric Lamps, of which the following is a specification.

My invention is directed particularly to means for use with a reflector or shade like that described and claimed in a prior application for a patent for improvement in reflectors, bearing Serial No. 402,422, filed by me in the U. S. Patent Office on the 16th day of November, 1907, when it is desired to utilize such a reflector or shade in connection with an electric lamp, and particularly an electric incandescent lamp, and it has for its objects—first, to provide a detachable protecting casing for the socket of an incandescent electric lamp which shall prevent any possibility of effecting any connection whatever with either of the conducting terminals of said socket after the lamp is in place and thereby avoid any possibility of a statical shock. Second, to effect the insulation of the metallic or conducting parts of such a reflector or shade from the conducting parts of the lamp and in such manner as to avoid any possibility of a short circuit between two or more lamps when hung by flexible conductors in relatively close proximity to each other; or to prevent any possibility of any person receiving a shock on touching such reflector or shade. Third, to provide a novel means for effecting the location of the reflector or shade at a lower level about the lamp, than was possible with the reflector as disclosed in the above-named application, and in such manner as to thereby give better reflecting effects.

With existing types of sockets and fixtures for incandescent electric lamps it is customary to surround the entire socket of each lamp with a metallic casing or shell which is wholly insulated interiorly from both of the terminals, the contact between which is effected usually with well known forms, of lamps by an exterior screw-threaded part and an interior or centrally located part. With such lamps, however, there is not always afforded an absolute insulation of the screw-threaded part because of the fact that

the length of these screw-threaded parts in various types of lamps varies materially, so that when the lamp is screwed home there is exposed sometimes one or more complete turns of the thread. It is possible, therefore, under these conditions for a person to touch this screw-threaded part which necessarily has current potential when the lamp is in circuit, thereby offering an opportunity for dangerous statical shock to persons using such lamps. Such a condition of affairs also makes it possible for a person to receive a shock of like nature from a metallic shade which is secured to or supported by the lamp itself, by resting upon the upper end of the bulb thereof and which, if in metallic contact with the screw-threaded part, will necessarily receive current potential. My improvement is designed to avoid the possibility of such dangerous shocks and also the possibility of short-circuiting or burning out a lamp in the event of two such lamps being brought into near enough proximity to each other for the shades supported thereby to make electrical contact.

My invention will be fully understood by referring to the accompanying drawings, in which,

Figure 1 represents an incandescent electric lamp of well known type with my novel reflector or shade disclosed in the prior application above referred to and my improvement hereinafter described and claimed as applied thereto, the shade and the improvement being illustrated in sectional view. Fig. 2 is a plan view of my novel reflector as disclosed in my before-mentioned application; and Fig. 3 is a perspective view of the improvement hereinafter described and claimed, by the aid of which improvement the objects above referred to are attained.

Referring now to the drawings in detail for a full and clear understanding of the invention, such as will enable others skilled in the art to construct and use the same, and first to Figs. 1 and 2, 1 represents my novel reflector or shade, the body portion of which is constructed of two relatively thin metallic disks, preferably of steel, said disks being the exact duplicates of each other and being provided with radially disposed arms, 2, 2. These disks are superimposed or placed one upon the other and in such manner that the radially disposed arms overlap each other,

as clearly shown in Fig. 2, the disks being held together at their outer rim in any preferred manner and in the present instance connected to a further reflecting surface in the nature of a truncated cone, as shown in Fig. 1. 3 represents the novel means, in the nature of a slotted cylindrical sleeve, for accomplishing the results above referred to. 4 represents the outer metallic casing of an incandescent lamp fixture which is insulated in the usual manner from the outer conducting sleeve of the lamp 7 by an insulating sleeve 5 as is customary, 6 representing the screw-threaded conducting portion of one end of the filament of the lamp; the other terminal thereof being connected to a central plug part; these features constituting the essential elements of standardized electric incandescent lamps now generally known and largely in public use throughout the United States.

My invention, clearly illustrated in Fig. 3 by the numeral 3, is in the nature of a slotted metallic or other rigid sleeve which is of outwardly curvilinear construction at its base and provided with a plurality of longitudinal slots, as clearly illustrated. In using this improved device, the reflector or shade is first slipped over the lamp by inserting the former through the central opening, which opening is clearly illustrated in Fig. 2. In effecting this insertion the arms 2, 2, assume the curvilinear position shown in Fig. 1.

In the use of my novel reflector or shade as disclosed in the before-mentioned application I have ascertained that when the inner ends of the arms 2, 2 are located in place against the screw-threaded portion 6 of the lamp, there is given to the entire reflector or shade an electrical potential which makes the device dangerous, by reason of such potential, as will be readily understood by those skilled in the art. For overcoming this objection, therefore, I secure the slotted sleeve 3 directly to the lower end of the outer casing 4 by forcing it over the end thereof in the manner clearly illustrated in Fig. 1, so that this sleeve becomes in effect a permanent part of the fixture; I then secure the lamp in place with the reflector or shade attached, as before described, and the lamp is finally secured in the usual manner by screwing it home, so that circuit is effected through the filament therein, the lower or curvilinear portion of the sleeve 3 forcing the reflector or shade 1 downward by reason of the frictional contact of said sleeve with the upper ends of the arms 2, 2. It will be apparent, therefore, that by no possibility can there be any electrical contact between the reflector or shade and either of the conducting terminals of the lamp, by reason of the fact that the metallic arms 2 are wholly sustained by the glass bulb of the lamp and

are held thus sustained by the sleeve 3 which, as before stated, is insulated from the lamp by the sleeve 5.

It will also be obvious that by the provision of such a sleeve I am enabled to force the reflector or shade downward much farther than was possible with my reflector or shade as before disclosed, the extent to which such downward location is effected being limited only by the length of the sleeve and the internal diameter of the lower end thereof. By doing this, I am enabled to bring the body portion of the shade down and around the body portion of the light giving filament within the lamp 7.

I make no claim in the present application to the subject matter of the reflector or shade *per se*, as shown in the accompanying drawings and hereinbefore described, nor to the same as combined with an electric lamp, as shown; these features constituting the subject matter of the before-mentioned application.

Having thus described my invention what I claim and desire to secure by Letters Patent of the United States is—

1. Means for effecting the insulation of a conducting or metallic reflector or shade from both of the conducting terminals of an electric lamp, consisting of a rigid cylindrical sleeve slotted at one end and curved outwardly at the other, the internal diameter of said sleeve at its slotted end being such as to adapt it to be detachably secured to the lower end of the outer casing of an incandescent electric lamp socket, and of such internal diameter at the other end that when the lamp is in position in the socket the curved-out portion fits sufficiently near therearound to adapt it to frictionally hold the reflector against the lamp, substantially as described.

2. Means for frictionally holding a reflector against the outer face of an incandescent electric lamp bulb, consisting of a cylindrical sleeve provided at one end with means for detachably securing it directly to the outer casing of the socket, the other end being curved outwardly so as to correspond in conformation or shape with the curvature of the body of the lamp and the supporting parts of the reflector, substantially as described.

3. An incandescent electric lamp socket provided with a protecting casing for both terminals and insulated therefrom; in combination with a cylindrical sleeve provided with means for detachably securing it to the lower end of said casing, said sleeve being adjustable in the direction of its length upon the casing and of such length that lamps provided with conducting socket connections of variable lengths may be fully protected from the danger of contact with the terminals thereof, substantially as described.

4. A lamp fixture for an incandescent electric lamp embracing two terminals insulated from each other and a casing surrounding said terminals, the casing being insulated from the terminals; in combination with an electric lamp secured thereto and a reflector yieldingly supported by the lamp; together with means operatively connected to the casing at one end with its opposite end resting against the reflector in such manner as to tend to force it downward over the bulb of the lamp, substantially as described.

5. An electric lamp socket, a lamp secured thereto, a reflector having yielding supporting arms adapted to be sustained directly by the lamp, and a holding device which frictionally tends to force the reflector downward about the body of the lamp, substantially as described.

6. A lamp fixture for an incandescent electric lamp provided with two terminals insulated from each other and surrounded by a metallic casing insulated from both; an electric lamp secured to said fixture, a reflector supported directly by the bulb of the lamp, and a sleeve one end of which is secured directly to the exterior of the casing, while the other end rests directly against the reflector tending to force it downward over the bulb of the lamp, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

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Witnesses:

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