Feb. 16, 1932. M. BOLTUCH 1,845,035

ELECTRIC LIGHTING APPLIANCE

Filed June 26, 1930

Fig. 1.

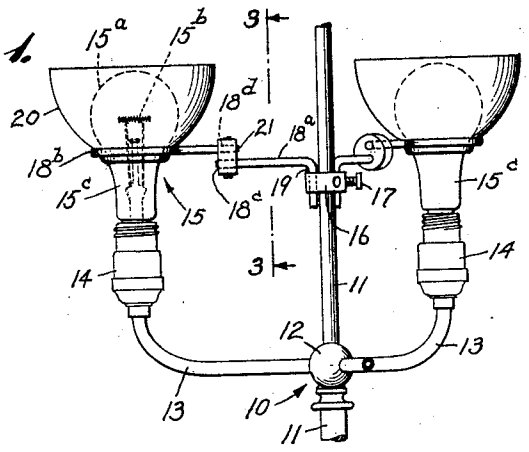


Fig. 2.

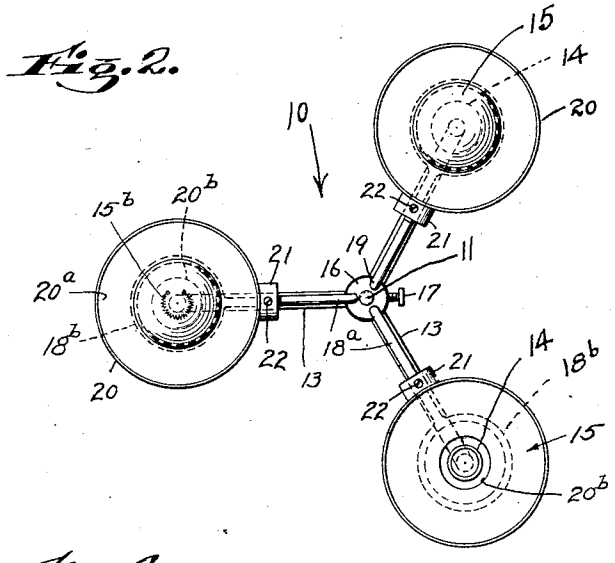
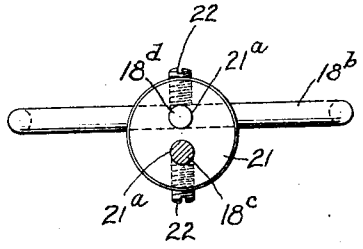


Fig. 3.



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UNITED STATES PATENT OFFICE

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ELECTRIC LIGHTING APPLIANCE

Application filed June 26, 1930. Serial No. 463,860.

This invention relates to electric lighting appliances, and more particularly is directed to an improved light distribution means adapted to be adjusted and applied to lighting fixtures of conventional construction.

Among the objects of the invention is to provide a light distributing means of improved construction comprising few and simple parts assembled to form a neat appearing structure, which shall be readily adjustable to fit various sizes and forms of lighting fixtures, which shall afford a simple means for distributing the light from incandescent lamps to provide indirect and direct illumination blended to give pleasing effects, which shall be cheap to manufacture, and practical and efficient to a high degree in use.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter described and of which the scope of application will be indicated in the following claims.

In the accompanying drawings, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a front elevational view of a fragmentary portion of a lighting fixture equipped with the improved light distributing means embodying the invention, one branch arm of the fixture being cut away.

Fig. 2 is a top plan view of the structure shown in Fig. 1, showing one lamp removed from the socket, and

Fig. 3 is a cross-sectional view of the extensible portion of the holder corresponding to a section taken on line 3—3 in Fig. 1.

Referring in detail to the drawings, 10 denotes a fragmentary portion of a conventionally constructed electric lighting fixture, such for example as hung from a ceiling or forming part of a standard of a table or bridge lamp, equipped with the improved light distributing means for producing indirect and direct illumination embodying the invention.

Said fixture 10 is seen to comprise vertically extending pipes 11 which join at a junction piece 12, the latter having a plurality of branch arms 13 radially extending therefrom. The outer ends of said arms 13 terminate in lamp sockets 14, each carrying an incandescent lamp 15. Lamps 15 here shown, are of the so-called pear-shape type having a bulbous portion 15*a* enclosing a closely wound filament 15*b* and an elongated base stem 15*c*.

The lighting fixture 10 is wired in the well understood manner, (not shown) by drawing conductor wires through the pipes 11, junction piece 12, branch arms 13 and connecting same to the lamp sockets 14 for supplying electric power to the lamp 15.

Slidably mounted on the pipe 11 above the junction piece 12, there is provided a center member 16 having a set-screw 17, or other suitable tightening means adapted to retain said member 16 in an adjustable position along the pipe 11.

A plurality of spaced holders 18, one for each lamp 15, have ends 18*a* pivoted at 19 on said member 16, the other or free end portion 18*b* of each holder terminating in a ring wherethrough the incandescent lamp 15 extends, as shown in Figs. 1 and 2, an opaque shade 20 having an interior highly polished reflecting surface 20*a*, is seated on each ring end portion 18*b*, said shade extending only about the lamp bulbous portion 15*a*, for reflecting the light upwardly. The base stem 15*c* of the lamp projects below said shade and is exposed, permitting the light to pass below the shade. The opening 20*b* of the shade through which the lamp 15 extends, is made to permit the lamp base stem 15*c* to freely pass therethrough, but is preferably of less diameter than the lamp bulbous portion 15*a*.

The holder 18 may be made with suitable extensible means for varying the length thereof and also for angularly adjusting the plane of the ring end portion 18*b* and shade with respect to the pivoted end 18*a* and the lamp 15. As here shown, said means comprises a coupling 21 which is provided with passages 21*a* through which extend the separate mid-portions 18*c* and 18*d* of said hold-

er. Said portions 18*c* and 18*d* are movable in said passages 21*a* and may be locked in position by set-screws 22. Thus by loosening said set-screws 22, the holder may be shortened or lengthened, and the plane of the ring end portion 18*b* together with the shade may be adjusted in various angular or parallel positions with respect to the horizontal plane.

The practical operation of the invention will now be apparent. To the stand or hang pipe 11 of any conventional lighting fixture 10 having extended branch arms 13, each of which terminates in a lamp socket 14, the center member 16 is attached, holders 18 are mounted on said center member with the ring end portion 18*b* of each holder positioned over a lamp socket 14. An opaque shade 20 is seated on each of said ring end portions 18*b*, said holders and center member being adjusted so that on fitting the incandescent lamps 15 into the sockets 14 the shades are positioned about the bulbous portions 15*a* of the lamps and the stem portions 15*c* thereof are left exposed. Most of the light from each filament 15*b* is reflected by the shade 20 upwardly and is adapted to be utilized as an indirect source of illumination. A less portion of the light from each filament passes through the stem portion of the lamp and is available for direct illumination. By adjusting said holders 18 and shades 20 with respect to the lamp the amount of direct illumination can be varied and the indirect and direct illumination blended to give a pleasing and desirable lighting effect.

It will thus be seen that there is provided means in which the several objects of this invention are achieved and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. An electric lighting fixture having spaced branch arms, each terminated by a lamp socket carrying an incandescent lamp, an opaque shade for each of said lamps, said shade being positioned about the bulbous portion of the lamp with the stem portion thereof exposed to provide indirect and direct illumination, radially extending supports for retaining said shades, and means for independently adjusting each support for varying the positions of the shades relative the lamps to change the effective proportions of indirect and direct illumination.

2. In combination with an electric lighting fixture standard having spaced branch arms, each terminated by a lamp socket carrying an incandescent lamp, of a center member mounted on the standard, a plurality of spaced holders, each having one end portion extended to the incandescent lamp, an opaque shade seated on said end portion positioned about the bulbous portion of the lamp with the stem portion thereof exposed to provide direct and indirect illumination, the other end of said holder, opposite said end portion being movably supported on said member, and means for adjusting said member to vary the position of the shade relative the lamp for changing the effective proportions of indirect and direct illumination.

3. In combination with an electric lighting fixture standard having spaced branch arms, each terminated by a lamp socket carrying an incandescent lamp, of a center member mounted on the standard, a plurality of spaced holders, each having a ring end portion wherethrough an incandescent lamp extends, an opaque shade seated on said ring positioned about the bulbous portion of the lamp with the stem portion thereof exposed to provide direct and indirect illumination, the other end of said holder opposite said ring portion being movably supported on said member, and means for adjusting said member to vary the position of the shade relative the lamp for changing the effective proportions of indirect and direct illumination, and adjustable extensible means for varying the length of each holder.

4. In combination with an electric lighting fixture standard having spaced branch arms, each terminated by a lamp socket carrying an incandescent lamp, of a center member mounted on the standard, a plurality of spaced holders, each having one end extended to an incandescent lamp, an opaque shade seated on said end positioned about the bulbous part of the lamp with the stem thereof exposed to provide direct and indirect illumination, the other end of said holder being movably supported on said member, and means for adjusting said member to vary the position of the shade relative the lamp for changing the effective proportions of indirect and direct illumination, said holder having a portion between said ends for adjusting the latter with respect to each other and for extending the length of the holder.

In testimony whereof I affix my signature.

MAX BOLTUCH.