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ELECTRIC LIGHT FIXTURE

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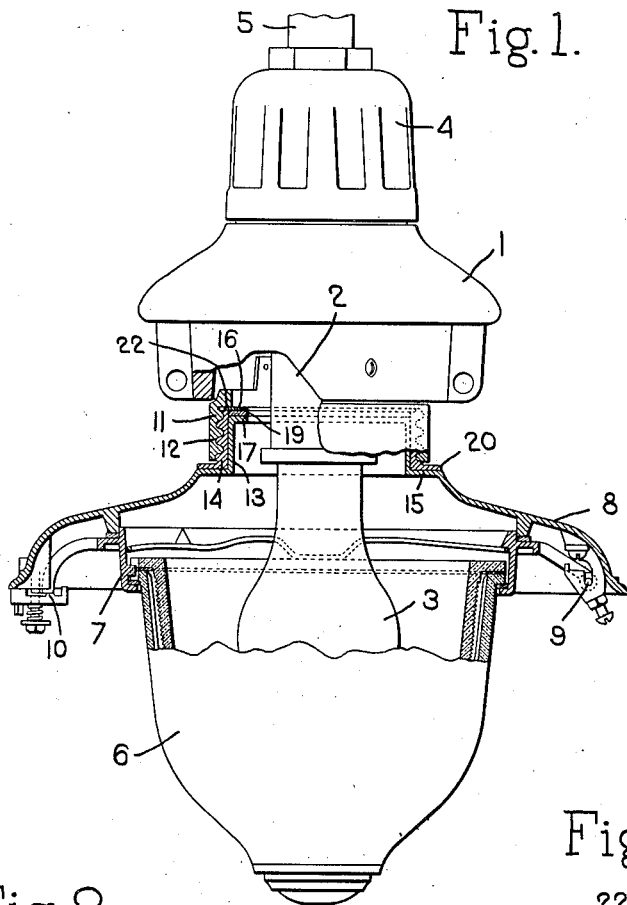


Fig. 1.

Fig. 2.

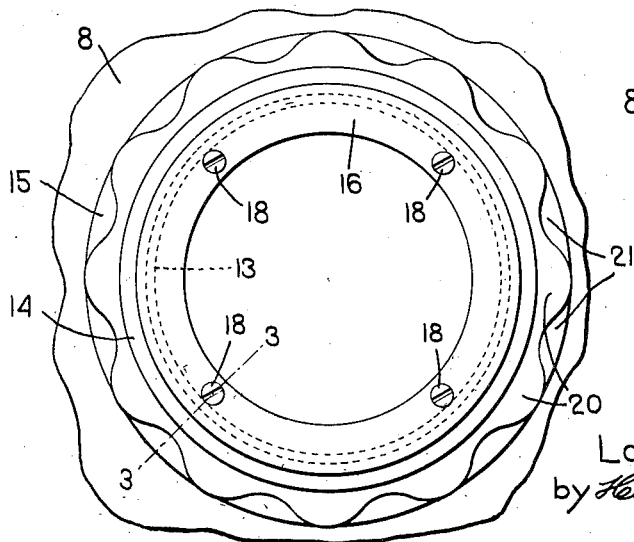
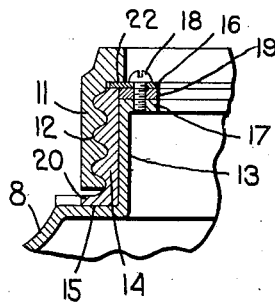


Fig. 3.



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ELECTRIC LIGHT FIXTURE

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9 Claims. (Cl. 240—128)

This invention relates to improvements in electric light fixtures having a light distributing member, such as a refractor or reflector for controlling the distribution of the light.

5 In usual constructions such fixtures comprise a head which is provided with a lamp socket and which also has secured thereto or formed integrally therewith a threaded screw ring holder upon which a body, supporting the light distrib-
10 uting member, is screwed when the parts are assembled. In certain instances it is desirable to support the lamp from the body, but in such instances the screwing of the body, which carries the light reflector, to the screw ring holder, causes an undesirable twisting of the wires
15 through which the current is supplied to the lamp.

One of the objects of the invention is to provide an electric light fixture comprising a
20 supporting head having a screw threaded member for supporting a body, which carries a light distributing member, with a sleeve secured to said body and rotatable relatively thereto and having screw threads complementary to those
25 of said screw threaded member adapted to enable the body and the light distributing member carried thereby to be properly positioned relatively to each other and thereupon secured together by the rotation of said sleeve, whereby
30 relative rotation between the body and head, which would result in twisting the wires leading to the lamp, will be avoided.

In certain types of electric light fixtures asymmetric light distributing members, such as refractors or reflectors, are employed for the purpose of projecting a greater portion or portions of the light in certain directions than in others. In electric fixtures of this type it is necessary
35 that the light distributing member be properly positioned in order that there may be a correct distribution of the light, or in other words that the brightly illuminated portions of the illuminated area should be correctly positioned.

Another object of the invention is to provide
45 an electric light fixture comprising a supporting head, a light, a body, carrying an asymmetrical light distributing member, and means for so connecting said body to said head as to permit said body to be rotatably adjusted to different positions
50 relatively to said head in order that a greater portion of the light may be projected upon the area to be more brightly illuminated.

A further object of the invention is to provide means for rotatably adjusting a unit of the type
55 illustrated which has a globe or refractor sup-

porting member, so that the direction of swing of the hinge member may be controlled to meet the requirements of the particular location at which the fixture is installed.

These and other objects and features of the invention will more fully appear from the following description and the accompanying drawing and will be particularly pointed out in the claims.

An illustrative embodiment of the invention is shown in the accompanying drawing, in which,

Fig. 1 is a view of an electric light fixture embodying the invention, with portions broken out to show more clearly the construction;

Fig. 2 is a fragmentary top plan view of the light distributing member, the periphery thereof being broken away;

Fig. 3 is a fragmentary sectional view on an enlarged scale showing particularly the attachment between the body which supports the light distributing member and the screw ring holder.

The invention is illustrated in the drawing as embodied in a type of electric light fixture disclosed in the application of Kenneth A. Sawin, Serial Number 606,935, filed April 22, 1932, but it is to be understood that the invention may be embodied in other forms of fixtures to which it may be adapted.

In the construction illustrated in the drawing the electric light fixture comprises a head 1, preferably of porcelain, having a lamp socket 2 in which the bulb 3 is secured in the usual manner. The porcelain head 1 usually is secured to a metal canopy 4 which in turn is screw threaded to a supporting pipe 5. The head 1 has secured to it, or formed integral therewith, a screw ring holder to which the body, which carries the light distributing member, is secured, and the present invention relates to the means
40 for coupling the body to the head.

It will be obvious that the present invention is adapted to be applied not only to porcelain or other insulated heads of the character illustrated, but also to metallic heads or canopies provided with a threaded member or portion adapted to be engaged by the complementary screw threads upon the coupling mechanism embodying my invention.

In some types of lighting fixtures an asymmetrical light-distribution member is employed to give some special or desired distribution of the light from the lamp 3. One of such light controlling members is in the form of a refractor contained in a globe, generally indicated at 6,
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and which by its refracting characteristics serves to give definite distribution of the light from the lamp 3, the character of such distribution, of course, being controlled by the character of the refractor. The refractor 6 is supported in a refractor holder 7 and the latter is connected to a body member 8 which constitutes a mounting member for the refractor. The refractor holder 7 is hinged to the body or mounting member 8 as indicated at 9 and is retained in its operative position by means of a suitable latch 10. The connection between the supporting body 8 and the head 1, in usual constructions, comprises a screw ring holder 11 which is secured to the head 1, and depends below the latter, and which is provided with internal screw threads 12 to receive complementary screw threads upon the supporting body 8.

In usual electric light fixtures of this type the correct position of an asymmetrical light controlling member, such as a refractor 6, depends upon the position of the head because such fixtures do not have any means for adjusting the supporting body rotatably with reference to the head 1 after the parts are once assembled.

As stated above, the invention has for its object to provide a novel connection between the supporting body 8 and the head 1 which will permit the supporting body and the head to be properly positioned to project the greater amount of light in the proper direction or directions, and with coupling means operable to unite the head and body when thus positioned.

A further object of the invention, as stated, is to provide means operable upon partial release of the coupling to permit the body and the light supporting member carried thereby to be rotated about the axis of the screw ring holder to any adjusted position, whereby the parts may be first connected by the coupling and the light distributing member thereafter positioned properly to project the brighter rays of light in the desired direction or directions.

In the construction herein shown the body 8, which supports the light distributing member, is provided with a neck 13 upon which is rotatably mounted an externally threaded sleeve 14 adapted to screw into the screw ring holder 11. The sleeve 14 is retained on the neck by being confined between a shoulder 15, (Fig. 3) at the bottom of the neck, and a retaining member, which preferably is a ring 16, which is secured to the upper end of the neck, but which may be outwardly extending bosses, or any other suitable means. The neck 13 is illustrated herein as having an inturned flange 17 at its upper edge, and the ring 16 is secured to the flange by means of screws 18. Desirably, but not necessarily, a gasket or washer 19 is interposed between the ring and flange. The retaining ring 16, as illustrated, has a diameter sufficiently larger than the neck 13 to overlie the end of the screw threaded sleeve 14, as best seen in Fig. 3. The sleeve 14 is freely rotatable upon the neck.

The sleeve 14 desirably is provided at its lower end with an outwardly extending flange 20 which overlies the shoulder 15. The periphery of the flange preferably is scalloped, as shown at 21, to make it easy for an operator to grasp and turn the sleeve. The body 8, which supports the light distributing member, may be readily assembled upon the head by simply placing it in proper position relatively to the screw ring holder, so that by turning the ring 14 the sleeve will be screwed into the screw ring holder 11.

The screw ring holder is provided with an interior downwardly facing shoulder 22 against which the upper end of the retaining ring 16 is clamped when the sleeve 14 is fully screwed into the screw ring holder 11. The tightening of the sleeve 14 in the holder 11 thus serves to clamp the edge of the retaining ring 16 between the end of the sleeve 14 and the shoulder 22, thereby locking the body 8 against rotative movement relatively to the head 1.

During the operation of connecting the body 8 to the screw ring holder 11, the body may be placed in the proper position to give the desired light distribution and then held in such position while the sleeve 14 is being screwed into the holder 11. If, after assembling the parts in this manner, it is found that the light distributing member does not project the brighter light over the desired area, the sleeve 14 may be backed off sufficiently to release the ring 16 from its clamped engagement with the shoulder 22 so that the body and light distributing member may be rotatably adjusted to direct a brighter light over the area to be more brightly illuminated, and the sleeve then rotated to clamping position to retain the parts in proper position.

It is to be understood that the particular embodiment of the invention disclosed herein is of an illustrative character, and that various changes in form, construction and arrangement of parts may be made, or the invention embodied in other types of light fixtures to which it is applicable, within the spirit and scope of the following claims.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is:

1. An electric light fixture comprising a head for supporting a lamp and having a screw-threaded member, a sleeve having screw-threaded engagement with said member, a mounting member supported by said sleeve and having a swivel connection therewith to permit the mounting member to be turned into different angular positions relative to the sleeve, and a light-distributing member carried by the mounting member.

2. An electric light fixture comprising a head for supporting a lamp and having a screw-threaded member, a sleeve having screw-threaded engagement with said member, a mounting member supported by said sleeve and having a swivel connection therewith to permit the mounting member to be turned into different angular positions relative to the sleeve, a light-distributing member, and means connecting said light-distributing member to the mounting member which prevent the light-distributing member from rotational movement relative to the mounting member.

3. An electric light fixture comprising a supporting head having a threaded ring holder, a sleeve having screw-threaded engagement with said holder, a mounting member supported by said sleeve and having a swivel connection therewith to permit the mounting member to be turned into different angular positions relative to the sleeve, a light-distributing member carried by the mounting member, and means operable when the sleeve is set up upon the holder to clamp said mounting member against rotation.

4. An electric light fixture comprising a supporting head having an internally threaded screw ring holder, a sleeve having complementary external screw threads engaging those of

said holder, a body, a light distributing member carried thereby, said body having a neck rotatably connected to said sleeve and having means operable when the sleeve is set up to clamp said body and the light distributing member carried thereby in any desired position of rotary adjustment.

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5. An electric light fixture comprising a supporting head having an internally threaded screw ring holder presenting a shoulder at the end of said screw thread, a sleeve having complementary screw threads engaging those of said holder, a body, a light distributing member removably carried thereby, said body having a neck rotatably fitting within said sleeve, and a member secured to said neck and extending over the edge of said sleeve beneath said shoulder, whereby upon the setting up of said sleeve said member will be clamped between said sleeve and said shoulder and the body and light supporting member held in the desired position of adjustment.

6. An electric light fixture having a head for supporting a lamp socket, an internally threaded ring holder carried by the head, a light-distributing member, a supporting body by which the light-distributing member is supported, said body having a neck portion and an externally threaded sleeve surrounding and swivelled on said neck portion and having screw-threaded engagement with the ring holder.

7. An electric light fixture having a head, a screw-threaded member carried thereby, an asymmetrical light-distributing member, a mounting member by which said light-distributing member is supported, a sleeve swivelled on

the mounting member and constituting a support therefor, said sleeve having screw-threaded engagement with the screw-threaded member, said swivel connection permitting the mounting member to be turned into different angular positions in the sleeve, and means on the mounting member adapted to be engaged by said sleeve when tightened to clamp said mounting member to said screw-threaded member.

8. An electric light fixture having a head, a lamp socket and lamp carried thereby, an internally threaded screw ring holder secured to said head and presenting a downwardly facing shoulder, a body, a light distributing element removably carried thereby, said body having a neck portion, an externally screw threaded sleeve rotatably mounted on said neck portion, and means secured to said body overlying the end of said sleeve adapted when the sleeve is set up in said holder to be clamped by said sleeve against said shoulder.

9. An electric light fixture having a head, a body having a hinge support for a light distributing member, a light distributing member secured thereto in a predetermined position, and means for connecting said body to said head comprising an element having a swivel connection with the body and a screw-threaded connection with said head and operable to permit rotatable adjustment of said body on said head to any desired position, whereby said hinge member may be conveniently positioned to meet the requirements of the particular location at which the fixture is installed.

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