

March 7, 1933.

C. T. BRADY

1,900,539

READING LAMP

Filed Nov. 27, 1929

2 Sheets-Sheet 1

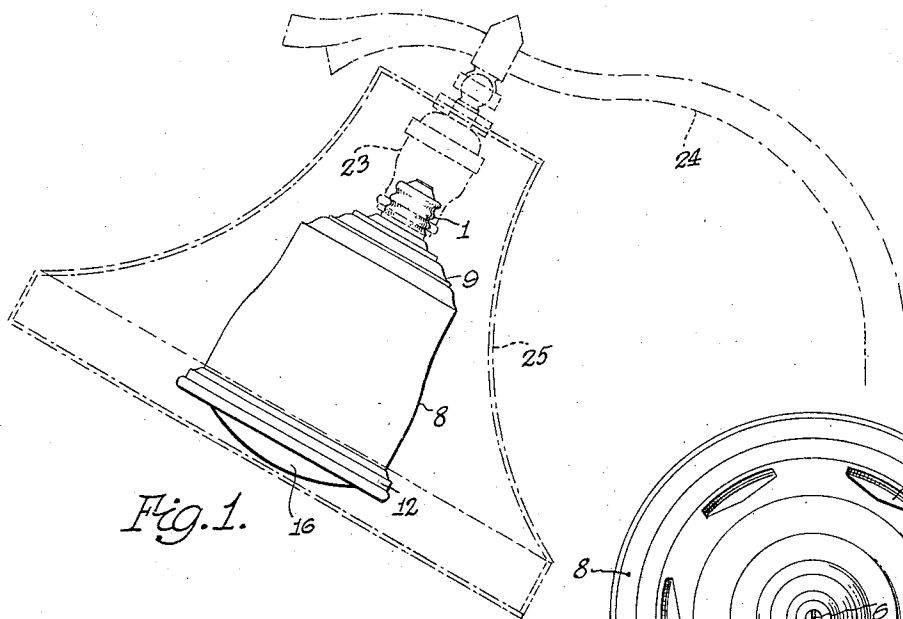


Fig. 1.

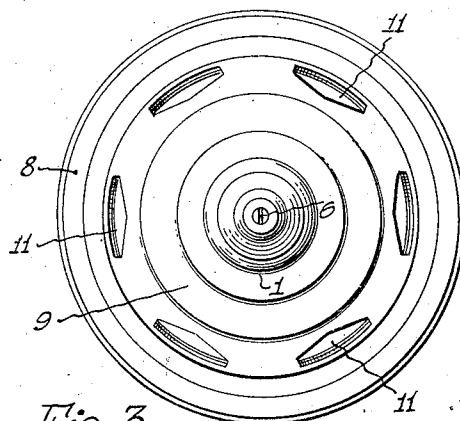


Fig. 3.

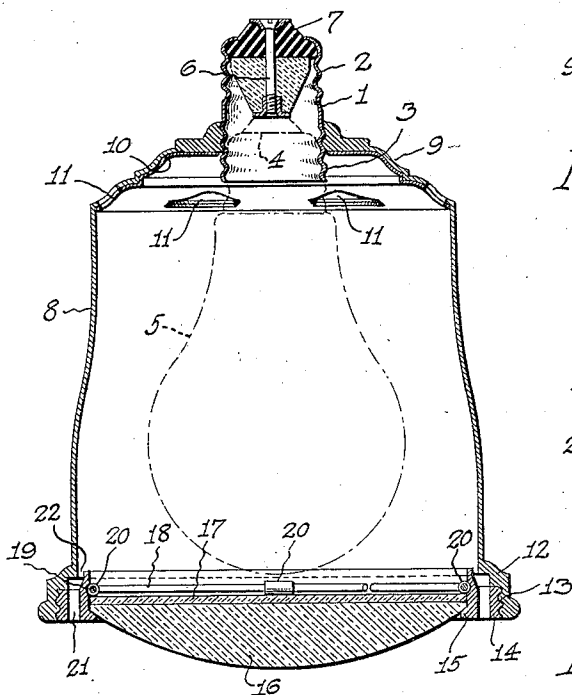


Fig. 2.

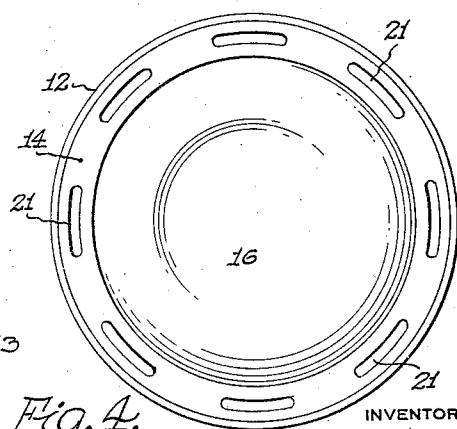


Fig. 4.

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2 Sheets-Sheet 2

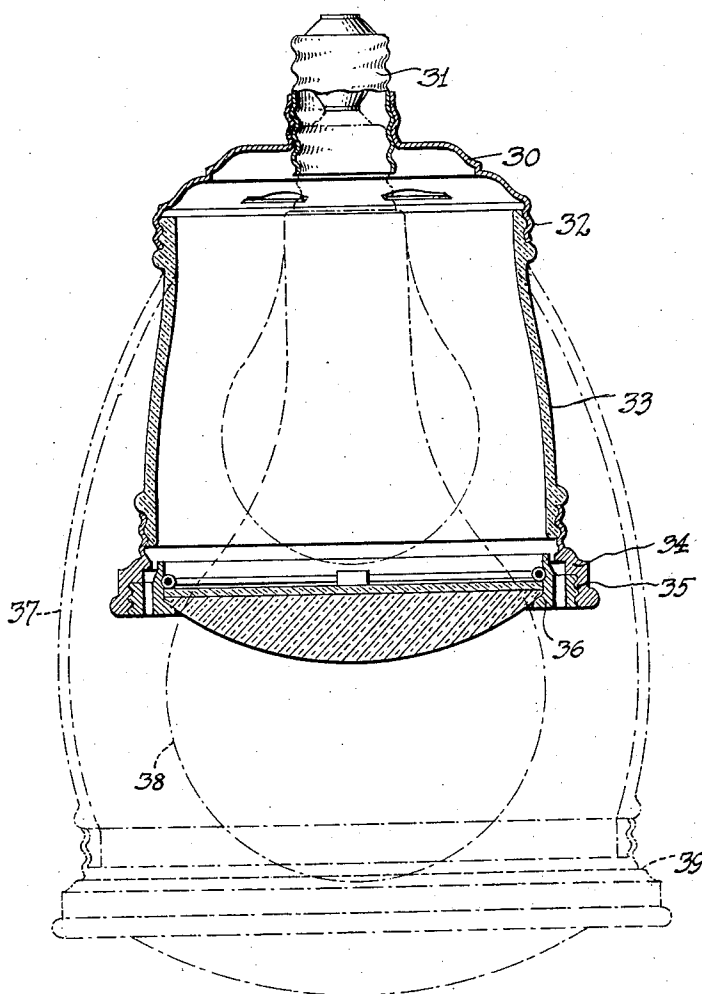


Fig. 5.

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READING LAMP

Application filed November 27, 1929. Serial No. 410,018.

The present invention pertains to a novel reading lamp adapted for insertion in a lamp socket wherever disposed.

One of the objects of the invention is to provide a device of this character which may bodily be substituted for the incandescent lamp of a shaded lamp structure and at the same time permit ample illumination of the lamp shade for decorative purposes. Another object is to render the shaded lamp structure, thus modified more suitable for reading and similar purposes. Further objects reside in protecting the lamp structure from breakage due to expansion and contraction and also to provide ample venting in keeping with the same purpose.

The device is built within a lamp housing or body fitted at one end with an adapter which enters a lamp socket and in turn receives an incandescent lamp disposed within the housing. Thus, the housing and lamp therein may readily be substituted bodily for the incandescent lamp of a shaded living-room lamp. The lamp housing is composed of a suitable translucent material adapted to withstand the heat generated by the incandescent lamp and also permitting, by its translucent character, illumination of the outer lamp shade for the purpose stated above.

In the lower end of the lamp housing is inserted a lamp structure adapted to modify the rays emanating from the incandescent lamp in such a manner as to impart the character of daylight thereto and thus render the light more suitable for reading purposes. As already indicated, the cushioning device and venting means are provided to prevent breakage of the lens structure and lamp housing during the contraction of the latter.

The invention is fully disclosed by way of example in the following description and in the accompanying drawings, in which—

Figure 1 is a side elevation showing the lamp applied to the standard of a bridge lamp;

Fig. 2 is a vertical section of the lamp;

Fig. 3 is a plan view thereof;

Fig. 4 is a bottom plan view; and

Fig. 5 is a longitudinal section of a modified construction.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

The lamp is supported from a screw socket by means of a plug member 1 having threads 2 at one end adapted to enter such socket and enlarged and threaded at its lower end as at 3. In the last named threads is received the plug 4 of an incandescent lamp 5 of suitable wattage. In the upper or outer part of the member 1 is mounted a terminal rod 6 imbedded in insulating material 7 separating it from the metallic part of the member 1. The lower end of the terminal 6 is engaged by the usual terminal in the upper end of the plug 4 as illustrated in Figure 2.

The lamp 5 is enclosed within a housing 8 having an open lower end and having its upper end covered by a hood or dome 9 fixed to the lower threads of the member 1, thereby enclosing the threads 3 and leaving the threads 2 exposed outside the housing 8. Into the dome 9 is fitted a liner 10 of metal or other material adapted to serve as a reflector. Air vents 11 are cut through the dome and reflector in a circular series as shown more clearly in Figure 3.

The lower open end of the lamp housing is enlarged at 12 and internally threaded at 13 to receive a threaded lens frame or ring 14 as clearly shown in Figure 2. The lower edge of this ring has an inwardly extending flange 15 providing a shoulder for supporting a plano-convex lens 16. Over the lens 16 is mounted a flat lens 17 of a bluish color adapted to impart the character of daylight to the rays emanating from the incandescent lamp 5, as described in detail in my pending application, Serial No. 281,747, filed May 31, 1928.

Over the lens 17 a split spring ring 18 is fitted into a groove 19 formed in the inner wall of the ring 15. As shown in Figure 2, the spring ring in conjunction with the flange 15 maintains the lenses in a tight

position so that they cannot rattle. The spring ring is surrounded at spaced points with rubber bands 20 engaging the flat rings 17. These bands respond to the expansion and contraction of the lens frame 15 during temperature changes, so that the lenses and the lens frame will not break during such changes, particularly during expansion.

The frame 15 is further formed with a circular series of air vents 21 communicating with the interior of the housing 9 at throats 22 formed between the upper edge of the frame 15 and the inner wall of the housing 8 directly above the enlargement 12. The main portion of the slots is offset laterally and outwardly from the throats 22 to obstruct a straight line path from any part of the lamp 5 directly through the slots, whereby to prevent the passage of rays directly from the lamp 5 to the exterior of the housing.

The housing 8 is constructed of any material having a translucent character and adapted to withstand the heat generated by the lamp 5. Preferably, the material is a molded product having the character of horn or bone when finished.

In Figure 1 the device is illustrated as inserted in the socket 23 of a bridge lamp standard 24 having the usual bridge lamp shade 25 enclosing the socket 23 and hence the lamp structure comprised within the housing 8. The translucent character of the housing 8 permits a certain amount of illumination of the lamp shade 25, so that the decorative value of the latter is not lost. The rays issuing through the lenses 16 and 17 are modified in the manner described resemble daylight, whereby the device is rendered exceptionally valuable for reading and similar purposes. It will also be apparent, that, due to the adapter 1, the lamp may readily be inserted in any socket adapted to receive a conventional incandescent lamp.

The modification shown in Figure 5 is adapted for adjustment of the lamp housing with respect to various sizes of lamps that may be used therein. The dome 30 surrounding the adapter 31 is a separate member preferably consisting of metal and having the inner surface thereof polished so that it may serve as a reflector. The lower end of the dome is threaded at 32 to receive the upper end of a separate open ended lamp housing 33 which preferably consists of material such as that described in connection with the member 8 of Figures 1 to 4. On the lower end of the housing is screwed a rim 34 which in turn is internally threaded at 35 to receive a lens frame or ring 36 and associated lens structure. The frame and lens structure are similar to the corresponding parts described in Figure 2.

This form of device lends itself to modification by removal of the housing 33 and the substitution of another housing 37 of different shape or character. For example a larger housing may be substituted in case it is desired to use a larger lamp 38. The lower end of the housing 37 carries a rim 39 which in turn receives a lens assembly in the manner already described.

Although specific embodiments of the invention have been illustrated and described, it will be understood that various alterations in the details of construction may be made without departing from the scope of the invention, as indicated by the appended claims.

What I claim is:—

1. A lamp comprising a housing having an open end and a closed end, an adapter mounted in and passing through said closed end, said adapter having one end adapted for insertion in a lamp socket and the other end adapted to receive a lamp plug, a lens frame mounted in said open end, said frame having an inner flange, a lens mounted in said frame and resting on said flange, and a spring ring holding said lens against said flange.

2. A lamp comprising a housing of translucent material having an open end and a closed end, an adapter mounted in and passing through said closed end, said adapter having one end adapted for insertion in a lamp socket and the other end adapted to receive a lamp plug, a lens frame mounted in said open end, said frame having an inner flange, a lens mounted in said frame and resting on said flange, and a spring ring holding said lens against said flange.

3. A lamp comprising a housing having an open end and a closed end, an adapter mounted in and passing through said closed end, said adapter having one end adapted for insertion in a lamp socket and the other end adapted to receive a lamp plug, a lens frame mounted in said open end, said frame having an inner flange, a lens mounted in said frame and resting on said flange, and a spring ring holding said lens against said flange, said frame having air vents formed therethrough and communicating with the interior of said housing.

4. A lamp comprising a housing having an open end and a closed end, an adapter mounted in and passing through said closed end, said adapter having one end adapted for insertion in a lamp socket and the other end adapted to receive a lamp plug, a lens frame mounted in said open end, said frame having an inner flange, a lens mounted in said frame and resting on said flange, a spring ring holding said lens against said flange, said frame having air vents formed therethrough and communicating with the interior of said housing, and an incandes-

cent lamp inserted in said adapter and disposed within said housing, said vents being positioned to intercept a straight line drawn from any point of said incandescent
5 lamp to the outer end of any of said vents.

In testimony whereof I affix my signature.

CHARLES T. BRADY.

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