This invention relates to an adapter for lamp sockets, and more particularly to an adapter in combination with a reflector which may be mounted on a lamp for the purpose of providing a source of indirect light.

It is an object of the invention to provide an improved construction and arrangement in a combined adapter and reflector of the type described, in which the adapter is composed of relatively few parts which may be easily assembled and manufactured at low cost, and in which the reflector is mounted directly upon the adapter for cooperation with a lamp bulb held in the adapter.

In the accompanying drawing Fig. 1 is a view showing the combined adapter and reflector with a lamp bulb mounted therein; Fig. 2 is a cut away view showing the construction of the adapter and the manner in which the reflector is mounted thereon; Fig. 3 is an exploded view of the elements of the adapter; and Fig. 4 illustrates the combined adapter and reflector mounted in a table lamp to provide a source of indirect light.

Referring to the drawing an adapter 10 is shown which may be mounted in any conventional lamp socket and which is provided with a reflector 11 which surrounds and encloses a lamp bulb 12 seated in the adapter. As shown more particularly by Figs. 2 and 3, the adapter is formed in two parts and is provided at one end with a screw threaded means for cooperation with a conventional socket shell and is provided at the other end with a mounting means for the reflector 11. In the form of the invention illustrated, the reflector 11 is made of translucent material such as glass, or a moldable plastic, but it will be apparent that the reflector may be made of other materials such as silvered metal.

The two parts of the adapter are identical in construction and one portion only will now be described with particular reference to Fig. 3. The adapter is provided with an intermediate socket portion 13 having an extension 14 at one end and a base 15 at the other end. Intermediate the base 15 and the socket portion 13 is a partition 16 provided with two openings therethrough, one being shown at 17 and the other at 18. The base 15 is closed by an end wall 19 which is provided with a recess or opening 20 in axial alinement with the opening 17 formed in the partition 16. A metal strip 21 rests within the aligned openings 17 and 20 and the upper end of the strip is bent at an angle to provide a contact terminal 22 resting upon the partition 16 and which is located centrally of the socket portion 13. The other end of the strip is bent at an angle on the outside of the end wall 19 to form a contact terminal 23 for cooperation with the central contact of a lamp socket in which the adapter is to be screwed. Seated within the socket portion 13 is a cylindrical screw shell 24 provided with an overhanging lip or flange 25 at the upper end, which is seated within a groove 26 formed in the inner wall of the socket portion 13. The groove 26 extends clear around the inner wall of the socket portion with the exception of a central portion which forms a key 27. The key 27 cooperates with a corresponding recess 28 formed in the lip of the screw shell and prevents the shell from turning relatively to the adapter whenever a lamp bulb is being seated within the screw shell. In order to make electrical contact with the base portion of the adapter the screw shell is provided with an integral extension 29 taking the form of a metal strip having an outwardly extending tang 30 at one end. The extension 29 passes through the opening 16 formed in the partition 16 and is located within the confines of the base with the tang 30 projecting through an opening 31 in the wall beyond the confines of the base and resting on the outer wall thereof. The outer wall surface of the base is screw threaded, as shown at 32, for the reception of an outer screw shell 33 which is adapted to be threaded thereon for engagement with the projecting tang 30, as shown at 33', so that the outer screw shell 33 is in electrical contact with the inner screw shell 24.

In order to insulate the central contact terminal 23 from the outer screw shell 33, the end wall of the base is provided with an extension 34 which fits into an opening 35 in the base of the outer screw shell thereby maintaining the contact terminal separated from the screw shell. At the same time, the screw shell 33 is maintained in proper position on the base. By this construction the screw shell 33 is electrically connected to the inner screw shell 24 by the electrical connection 33' and the central contact terminal 23 of the base is electrically connected to the contact terminal 22 of the socket portion by means of the conducting strip 21. In this manner a socket contact means is provided in the intermediate portion of the adapter to receive a lamp bulb and the socket means is connected electrically to a plug contact means formed on the base 18, which when threaded into a screw receptacle electrically connects the lamp with the receptacle.
It will be apparent from the construction just described that the contact elements may be assembled within the adapter simply by fitting the screw shell 24, the extension 29 and the strip 21 into the corresponding recesses and openings in the adapter and thereafter the other portion is fitted over these elements and the screw shell 33 screwed onto the base, thereby holding the two parts of the adapter together at the base end. The two parts of the adapter are held together at their other ends by means of the reflector 41 which is seated within a groove 38 extending around the periphery of the adapter. A split ring 37 rests within a groove 38 adjacent to the groove 36 and maintains the reflector tightly against a flange or shoulder 39 formed by the groove 36 so that the reflector is held securely on the adapter. At the same time the reflector acts to hold the two portions of the adapter together firmly without the necessity of other securing means. The adapter is assembled upon the reflector simply by passing it through a central opening 40 in the reflector until the flange 39 on the adapter contacts the walls of the reflector 41 on the adapter and thereafter the ring 37 is snapped into position to maintain the adapter and reflector in assembled relationship.

It should be noted that the reflector is mounted on the end of the strip 21 formed by the extension 14, at a point remote from the screw shell 24 which is adapted to receive the base of the lamp. In this manner the filament of the lamp bulb 12 is positioned correctly within the confines of the reflector 41, so that the light rays are diffused in a manner to increase their effectiveness and to provide an efficient source of indirect light. This construction also makes possible a reflector of reduced size because the extension 14 surrounds a portion of the lamp bulb. Were the reflector mounted at the base end 15 of the adapter it would be necessary to provide a reflector of greatly increased size thereby rendering the construction bulky and ill-fitted for use with lamps such as a floor or table lamp. By providing the extension 14 and mounting the reflector at the end of this extension a construction is provided which is compact and of neat appearance and which may be mounted readily in existing lamps to provide a source of indirect light. Furthermore, this construction makes it possible to position the lamp bulb correctly within the reflector.

The combined adapter and reflector has a wide variety of uses, one of which is illustrated by Fig. 4 in which a conventional table lamp 41 having a direct source of light is shown as changed into a lamp providing a source of indirect light. The adapter 10 is mounted directly in the socket 42 of the lamp and the shade 43 is supported directly upon the reflector 11. Such a change may be made quickly and easily simply by removing the existing lamp fixture and replacing it with the adapter, and since the reflector 11 is mounted directly upon the adapter a source of indirect light is quickly attained.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. In a device of the class described an adapter comprising a longitudinally divided two-part housing having an intermediate portion, socket means in said intermediate portion for receiving the base of an electric lamp, plug contact means mounted on said housing at one end of said intermediate portion and being electrically connected to said socket means, said plug contact means including a screw shell secured to the two parts of said housing and securing them together at said one end, said housing having an extension at the other end of said intermediate portion surrounding a portion of said electric lamp, and a reflector mounted on said extension surrounding the two parts of said housing to secure them together at the other end.

2. In combination a longitudinally divided two-part housing, socket means in said housing adapted to receive the base of a lamp, plug means on said housing electrically connected to said socket means and including a screw shell, said plug means being adapted to mount said housing in a lamp socket and a reflector mounted on said housing for cooperation with said lamp, said reflector surrounding the two parts of said housing and securing them together at one end, said screw shell securing them together at the other end.

3. In combination, an adapter having a longitudinally divided two-part housing, socket means in said housing, plug means on one end of said housing and being electrically connected to said socket means, said plug means holding the parts of said housing together at one end, and a reflector mounted on the other end of said housing surrounding the parts of the latter to secure them together.

4. In combination, an adapter comprising a longitudinally divided two-part housing having an intermediate portion, socket contact means in said intermediate portion for receiving the base of an electric lamp, plug contact means at one end of said intermediate portion electrically connected to said socket contact means, said housing having an extension at the other end of said intermediate portion and adapted to surround a portion of the bulb of an electric lamp mounted in said socket, and a reflector mounted on said extension and surrounding the remainder of said lamp bulb, said reflector encircling the two parts of said housing to secure them together.

5. In combination, an adapter comprising a longitudinally divided two-part housing having an intermediate portion, socket contact means in said intermediate portion, plug contact means mounted on said housing at one end of said intermediate portion, and being electrically connected to said socket contact means, said plug contact means including a screw shell surrounding the two parts of said housing and securing them together at one end, said housing having an extension at the other end of said intermediate portion provided with an annular flange, a reflector mounted on said extension and surrounding the two parts of said housing to secure them together at the other end of said adapter, and a split ring mounted on said adapter and cooperating with said flange to hold said reflector in position.

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