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WIREMOLD LUMILINE REFLECTOR

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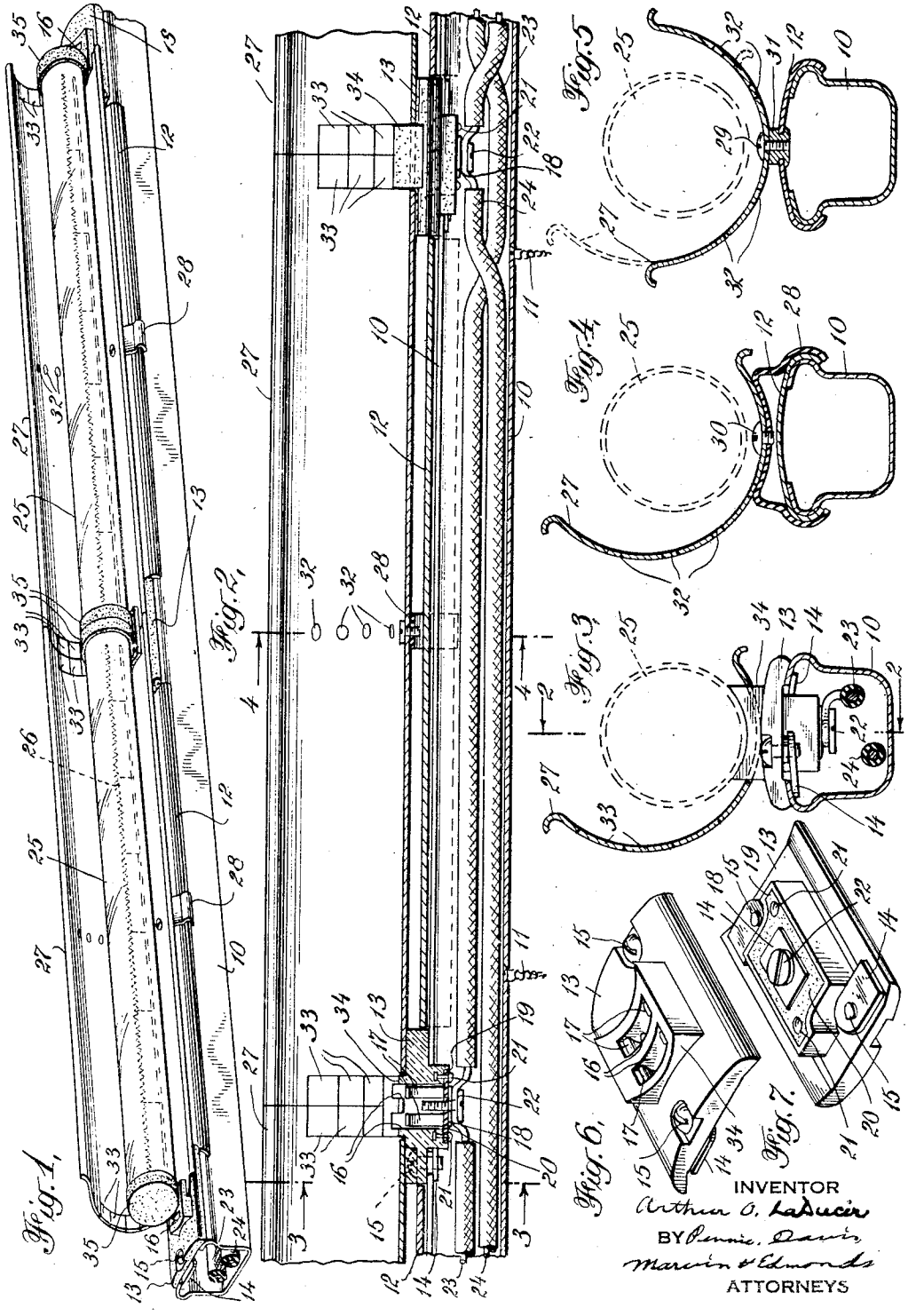

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

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WIREMOLD LUMILINE REFLECTOR

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7 Claims. (Cl. 240—6)

My invention relates to lighting systems, and comprises a type of reflector and means for mechanically supporting the same and for connecting it to the electrical circuit. It is particularly useful in connection with electric lamps such as those known as "Lumiline", or other lamps designed to produce the effect of lines of light, referred to hereinafter as line lamps.

In the drawing,

Fig. 1 is a general view of my improved lighting means;

Fig. 2 is an elevation, partly in section, on the line 2—2 of Fig. 3;

Fig. 3 is an elevation cross section on the line 3—3 of Fig. 2;

Fig. 4 is a similar section on the line 4—4 of Fig. 2;

Fig. 5 is similar to Fig. 4, but shows the reflector set at a different angle, and also shows an alternative type of fastening means for the reflector;

Figs. 6 and 7 show the lamp receptacle and the means for attaching it in place.

The member 10, Figs. 1, 3, 4 and 5, is a section of conduit here shown as of the well-known type known to the trade as "Wiremold"; suitable for enclosing and protecting such electrical conductors as are used in house wiring, which may be secured to a wall, floor, ceiling, etc. in any suitable way, as by screws 11, Fig. 1. This conduit is normally covered or closed in, as by a cover strip 12, Figs. 1 and 4.

At suitable points, this cover strip is interrupted, and is replaced by one of the receptacle members 13 shown in Figs. 6 and 7, which member is so shaped as to serve as a cover for the conduit, and is fastened in place by the lugs 14, 14, which bear on the inner side of the upper edge of the conduit, as shown in Figs. 1 and 2, and which are held in place by the screws 15, 15.

Each receptacle is provided with two slots, 16, 16, each of which contains a pair of spring contacts 17, 17, all four contacts of the receptacle being, in the arrangement shown, integral with a metal plate 18 which is held in a recess 19 in the bottom of the receptacle by an insulating cover plate 20, held in place by screws or rivets 21. By means of a screw 22 a conductor 23 carried in the conduit may be connected to the metal plate 18, and thus to the contacts 17, 17. If the wire 23 so connected at any receptacle is positive, then a negative wire, 24, will be so connected at the next receptacle.

The receptacles support mechanically and connect to the circuit electrically the electric lamps 25, 25, shown as of the well-known Lumiline type, in which the filament 26 extends longitudinally along the center of the lamp tube, and is connected at each end to a terminal plug or contact (not shown) which enters one of the receptacle slots 16. In this way I am able to support on and connect to the conduit 10 a line of lamps, mounted end to end, so as to afford a practically continuous and unbroken line of light.

The reflectors 27, 27, are herein described as part-cylindrical, by which I mean that each reflector is in the shape of a fraction, as illustrated about half, of the surface of a figure which is either a true cylinder or departs from true cylinder shape so far as is necessary to control the distribution of the reflected light in the desired manner. Each of the reflectors is mounted on or attached to the conduit 10 by some suitable fastening means; for example by either the clip 28 of Fig. 4 or the screw 29 of Fig. 5. The clip 28, which embraces the projecting portion 30 of the conduit cover 12 is fastened to the reflector 27 by the screw 30; the screw 29 of Fig. 4 enters into the tapped central opening of the stud 31, which is riveted to the cover member 12.

In either case the screw, whether 29 or 30, passes through a hole in the reflector. A part of the means for mounting the reflector at any one of a plurality of angular positions, which is highly desirable, as it permits a single standard reflector model to be used to produce a plurality of different light distributions, and in each position to provide a maximum of reflecting surface, is the provision of a set of twist-outs 32, 32, which do not substantially interrupt the reflecting surface, but any one of which may readily be punched out to afford an opening for the screw 29 or 30. As part of the same means, I provide at each end of each reflector a second series of twist-outs 33, 33, any adjacent two of which may be removed to afford an opening in the end of the reflector adapted to embrace a portion, preferably one half, of the projecting part 34 of the receptacle 13, as shown at 34 in Fig. 2, so as to allow the two reflectors which meet at any particular receptacle to come directly together, end to end, to avoid any substantial loss of reflecting surface at that point, and at the same time to afford room for the receptacle 34 and for the contacting and supporting members depending from the lamp.

The locations of the twist-outs 33, 33, at one end of the deflector are so related to those of the twist-outs 33, 33, at the other end and to the location of the twist-outs 32 that at any position in

which the reflector may be mounted; that is to say, with any one of the twist-outs 32 punched out to afford an opening for the screw 29 or screw 30; there are two adjacent twist-outs 33, 33, at each end of the reflector which, if removed, will embrace and afford room for a suitable portion of the projecting part 34 of the receptacle 13.

The projecting members 34 are suitably curved to fit the circular caps 35 on the ends of the lamps, to afford better mechanical support for the lamp.

I thus provide means for supporting cheaply, rigidly and efficiently a line of lamps of any desired length, end to end, and means to feed current to the same, and also support a continuous line of reflectors, arranged end to end, having their axes parallel to the axes of the lamps, and capable of being mounted at any one of a plurality of angular positions in order to bring about various distributions of light.

I claim:

1. The combination of a plurality of line lamps arranged in line with each other, sockets for said lamps, a series of elongated reflector members of curved cross-section arranged in line with each other and with their longitudinal axes parallel to the axes of the lamps, the ends of said reflector members having a series of twist-outs removable to accommodate said lamp sockets with the reflector members mounted in any one of a plurality of angular positions, and means for holding the reflectors in place with their ends in substantial contact at any one of a plurality of angular positions.

2. In combination, a conduit, wires therein, line lamps, a series of lamp sockets attached to the conduit adapted to electrically connect the line lamps to wires in the conduit and to mechanically support the line lamps in line with each other and with the conduit, a series of elongated reflectors of curved cross-section each provided with a series of twist-outs for permitting the reflector to be fastened in any one of a plurality of angular positions and with a corresponding series of twist-outs at each end to accommodate the lamp sockets when the reflectors are assembled in line with each other and with the lamps.

3. In combination a conduit, lamp sockets supported by the conduit, line lamps supported by the sockets in line with each other and with their axes substantially parallel to the axis of the conduit, elongated reflectors of curved cross-section and means for holding the reflectors in place with their longitudinal axes substantially parallel to the axis of the conduit, said holding means being capable of holding the reflectors in any one of a plurality of angular positions, and a series of twist-outs at each end of the reflector, each twist-out capable of providing an opening embracing a part of a socket, whereby the ends of the reflectors may lie in substantial contact with each other to present a substantially unbroken reflecting surface.

4. In combination, a conduit, lamp sockets supported by the conduit, line lamps supported by the sockets in line with each other and with their axes substantially parallel to the axis of the conduit, and a series of elongated reflectors of curved cross-section, each reflector being provided with a series of twist-outs at each end spaced angularly around the longitudinal axis of the reflector, each twist-out being capable of providing an opening for a socket, and an intermediate series of correspondingly spaced twist-outs to facilitate the fastening of the reflector in position.

5. An elongated reflector of curved cross-section having at each end a series of twist-outs, the twist-outs at opposite ends being correspondingly spaced about the longitudinal axis of the reflector and arranged to provide openings in different positions through which a lamp socket may be inserted, and also having a series of correspondingly spaced provisions for fastening means for holding the reflector in place.

6. An elongated reflector of curved cross-section having at each end a series of twist-outs, the twist-outs at opposite ends being correspondingly spaced about the longitudinal axis of the reflector and arranged to provide openings in different positions through which a lamp socket may be inserted, and also having an intermediate series of correspondingly spaced twist-outs adapted to afford openings for supporting the reflector.

7. In combination a series of fittings connected by sections of conduit, wires therein, line lamps, a series of lamp sockets attached to the fittings and adapted to electrically connect the line lamps to wires in the fittings, a series of elongated reflectors of curved cross-section each provided with a series of twist-outs spaced angularly about the longitudinal axis of the reflector for permitting the reflector to be fastened in any one of a plurality of angular positions and with a series of correspondingly spaced twist-outs at each end adapted to accommodate the lamp sockets when the reflectors are assembled in line with each other and with the lamps.

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