Dec. 10, 1968 S. IRVINE 3,416,124

LAMP HOLDER

Filed March 22, 1961

Fig. 1.

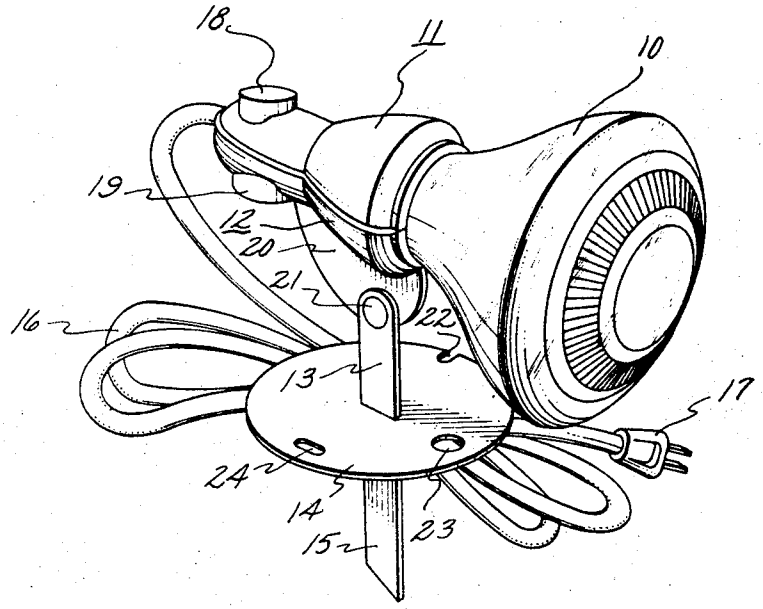


Fig. 2.

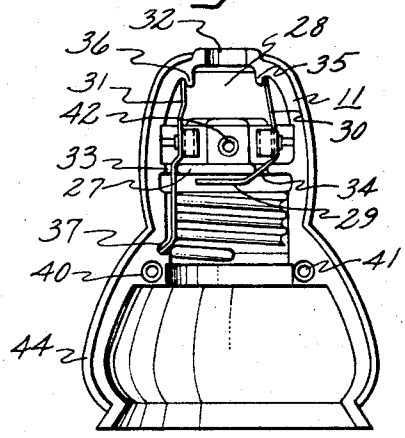


Fig. 3.

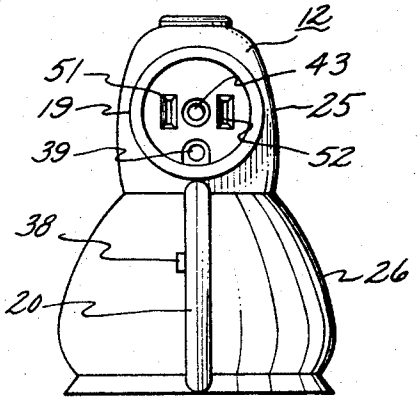
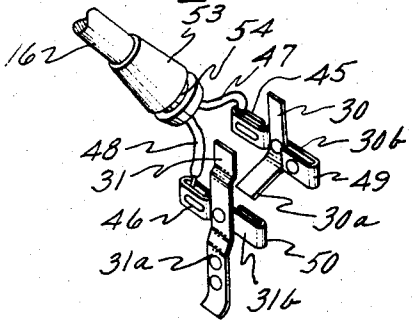


Fig. 4.



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LAMP HOLDER

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The invention relates to lamp holders and more particularly to lamp holders adapted for use in an outdoor floodlight unit.

It is necessary for outdoor floodlight units to be provided with lamp holders that are adapted to prevent moisture from entering the interior housing the electrical contacts in order to prevent short-circuiting. It has been the practice to avoid having any openings in the lamp holder except where essential. A rubber gasket is usually used to seal off the opening into which the lamp is fitted. While such lamp holders work satisfactorily, it would be desirable to provide a lamp holder which did not require the use of a separate gasket. These lighting units are usually sold individually for residential lighting and come equipped with a power supply cord and connector. For most residential lighting applications, such as Christmas decorations, several such lighting units must be employed. Consequently, extension cords are necessary to which the more remote units may be connected and several electrical outlets are required to which each unit may be connected. This results in a great array of electrical cords stretched around the grounds surrounding the home.

It is, therefore, the object of this invention to provide a novel lamp holder of simple construction which is waterproof and which does not require the use of separate sealing elements.

It is further the object of this invention to provide a novel lamp holder with provision for the interconnection of several such lamp holders in a single electrical circuit.

In accomplishment of the foregoing objects, I have provided a lamp holder which comprises a casing split longitudinally to form complementary base and cover members. The casing includes a substantially cylindrical portion which houses the electrical terminal contacts and also the means for securing a lamp having a threaded base, and a portion having an open end flaring outwardly so as to accommodate the substantially conical neck portion of a lamp. Bosses are located on opposite sides of the cylindrical casing portion to provide recesses for receiving terminal contacts. One of the bosses, preferably located on the underside of the casing, is provided with apertures communicating with the terminal contact recesses into which connector plug prongs may be inserted. Finally, means in the form of holes are provided in the base member of the casing so as to drain any moisture that may have entered the casing.

Additional objects and features of the invention will become apparent from the following description and with reference to the accompanying drawings in which:

FIG. 1 is a perspective view of the outdoor floodlight unit,

FIG. 2 is an elevational view of the inside of the cover member of the lamp holder casing on an enlarged scale,

FIG. 3 is an elevational view of the outside of the base member of the lamp holder casing, and

FIG. 4 is a perspective view of the electrical terminal contacts and the supply cord.

Referring to FIG. 1 of the drawing the outdoor floodlight unit essentially comprises a projector lamp **10**, a lamp holder casing formed of two complementary members, namely a cover member **11** and a base member **12** which are preferably made of a moulded insulating material such as, for example, a phenolic resin. The base

member **12** is connected in a suitable manner by means of a bracket **13** to a mounting plate **14** and/or a ground spike **15**. A supply cord **16** terminating in a connector plug **17** enables the unit to be connected to a source of electrical energy. The lamp holder casing is provided at its closed end with bosses **18** and **19** which are located diametrically opposite each other on cover member **11** and base member **12**. Boss **19** includes a built-in plug outlet which permits interconnection with another floodlight unit. Base member **12** includes further a fin **20** by which the lamp holder casing is secured to the bracket **13** by a suitable screw means **21**. Finally the mounting plate **14** secured to the other end of bracket **13** is furnished with a slot **22**, a knock-out **23** and an eyelet **24** adapting the plate to be mounted on a wall, a board or the like.

The structure of the lamp holder casing is illustrated on an enlarged scale in FIGS. 2 and 3. The casing includes a substantially cylindrical portion **25** which houses electrical terminal contacts and threads for securing the lamp, and an open-ended portion **26** flaring outwardly which straddles the substantially conical neck portion of the projection lamp. As shown on cover member **11** in FIG. 2, the space enclosed by casing portion **25** is divided by a wall **27** into compartments **28** and **29**. Compartment **28** houses terminal contacts **20** and **31** connected to the supply cord **16** which is admitted through an aperture **32**. Compartment **29** has its walls threaded so that when base and cover members are assembled, a receptacle is formed for receiving the threaded base of the projector lamp. Two slots **33** and **34** are provided in wall **27**. Slot **34** is adapted to receive the center contact **30**, one end of which rests behind a projection **35** and the other end is bent at an angle and seated at the bottom of the lamp receptacle. A second contact member **31** is arranged to be placed in slot **33** whereby one end rests behind a projection **36** and the other end extends along the wall of the receptacle to engage the contact shell of a lamp base and terminates in a notch **37**. Base member **12** (FIG. 3) is provided with draining holes **38** and **39**. In the assembled state cover member **11** and base member **12** are secured together by holding pins (not shown) to be inserted into holes **40** and **41** and a screw extending through aligned holes **42** and **43**. Finally, a flange portion **44** extends along the rim of cover member **11** and is provided with a lip projecting perpendicularly downwards from the flange edge so as to prevent the entrance of moisture into the assembled lamp holder casing.

The arrangement of contact members **30** and **31** in the lamp holder casing is more clearly illustrated in the perspective view of FIG. 4. Each contact member comprises a strip **30***a* and **31***a* to which are connected at a substantially right angle, strips **30***b* and **31***b*. Arms **45** and **46** of the strips **30***b* and **31***b* respectively, are adapted to be secured to conductor wires **47** and **48** respectively of supply cord **16** and inserted into recesses extending into boss **18**. Arms **49** and **50** are bent back into a U-shaped configuration so as to provide spring contact portions which are inserted into recesses extending into boss **19** and communicating with the exterior via apertures **51** and **52** thereby providing a connector plug receptacle. The end of supply cord **16** is furnished with a slightly conical end piece **53** having a groove **54** in which portions of cover and members **11** and **12** project in the assembled state so as to provide a strain relief and a watertight seal.

In assembling the lamp holder, the contact members **30** and **31** connected to the supply cord **16**, as shown in FIG. 4, are inserted, for instance, into the provided slots and recesses of cover member **11** as illustrated in FIG. 2. After holding pins are inserted into the holes **40** and **41** of cover member **11**, the base member **12** is placed in position over cover member **11** so that when the base and

cover member are pressed together, the holding pins enter respective holes in base member **12** and the U-shaped contact arms **49** and **50** enter the recesses that terminate in the connector plug receptacle apertures **51** and **52**. A screw inserted into the aligned holes **42** and **43** and secured by a nut concludes the assembly of the lamp holder. It is obvious that the assembly could have been started by inserting the contact members **30** and **31** into the provided slots and recesses of base member **12** and finished by placing cover member **11** over base member **12**.

As the strip contact members extend substantially in a longitudinal direction through the lamp holder casing and generally along the junction line of the cover and base members, and as the draining holes **38** and **39** are located in the cylindrical and the flaring portion of the lamp holder at a very low level when the floodlight unit is in its operating position, it is apparent that water or moisture entering the lamp holder is drained off through those holes before it can accumulate to a level where it could cause a short circuit. Further, the arrangement of the connector plug receptacle apertures **51** and **52** at the underside of lamp holder casing also avoids the entry of water or moisture into the interior of the casing. Finally, the provision of a built-in outlet on the floodlight unit permits the plugging in of an additional unit so that a series of units may be electrically connected together whereby the electrical energy is supplied from only one power outlet and only a relatively short length of supply cord is required with each floodlight unit.

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

1. A combination lampholder and outlet for outdoor floodlight units comprising

a casing split longitudinally to provide a complementary,

apertured base, and

aperture-free cover member,

said casing being divided by a laterally extending wall into a closed end electrical connection compartment, and

an open ended lamp receiving compartment,

said wall having electrodes extending therethrough generally along the split line of said cover and base for contact with a lamp base received in said open ended compartment,

the base of said casing having at least one moisture drain aperture in the open ended compartment,

said casing having fin means depending from the external base wall of said open ended compartment,

said casing having plug receptacle apertures through the base wall of said closed end compartment,

electrical power supply cord extending through the wall of said closed end compartment at the split line of said cover and base

said cord being electrically connected to said electrodes and to terminal contacts aligned with said plug receptacle apertures.

References Cited

UNITED STATES PATENTS

1,760,570	5/1930	Thompson	339—163
1,832,044	11/1931	Muldoon	339—170 X
1,878,230	9/1932	Morris	339—117 X
1,882,791	10/1932	Ferris	339—159 X
1,941,488	1/1934	Propp	339—163 X
1,955,854	4/1934	Linville	339—117 X
2,673,286	3/1954	Moore	240—11.2
2,795,690	6/1957	Cooper	240—3

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U.S. Cl. X.R.

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