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2,689,909

HOLDER FOR SEALED BEAM LAMPS

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2 Sheets-Sheet 1

Fig. 1

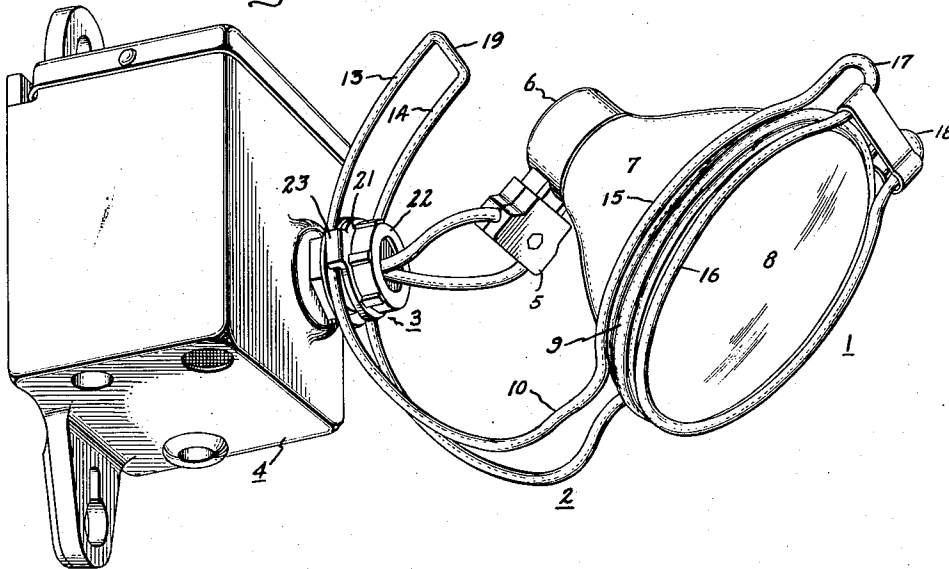
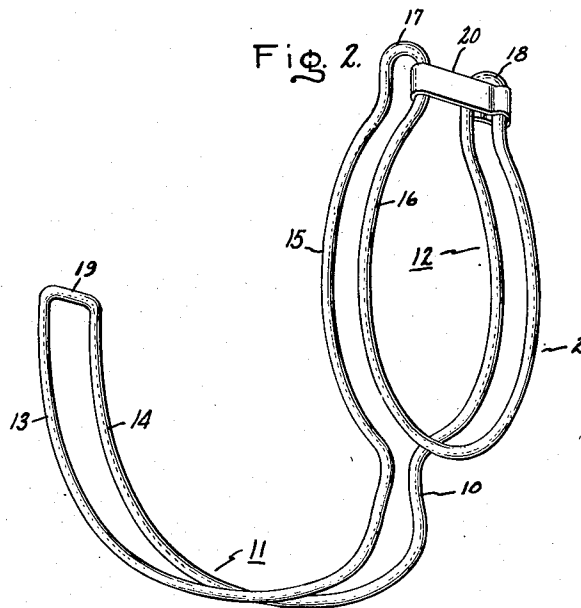


Fig. 2



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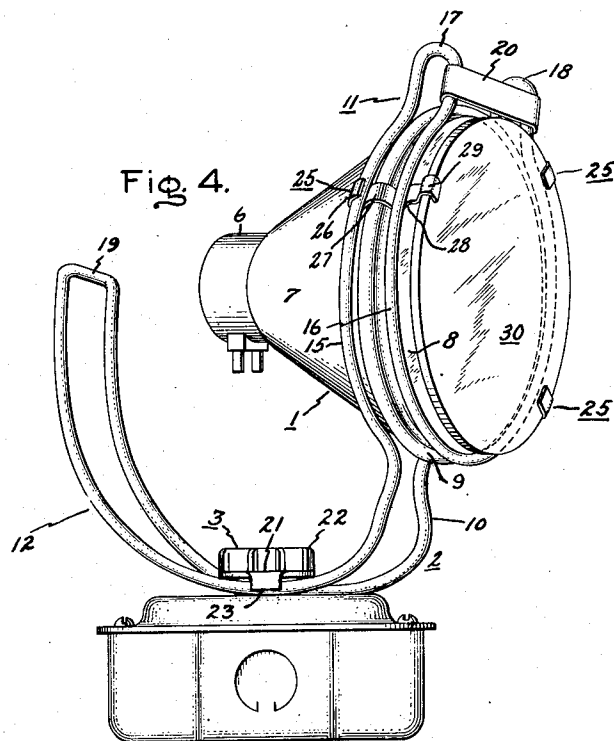
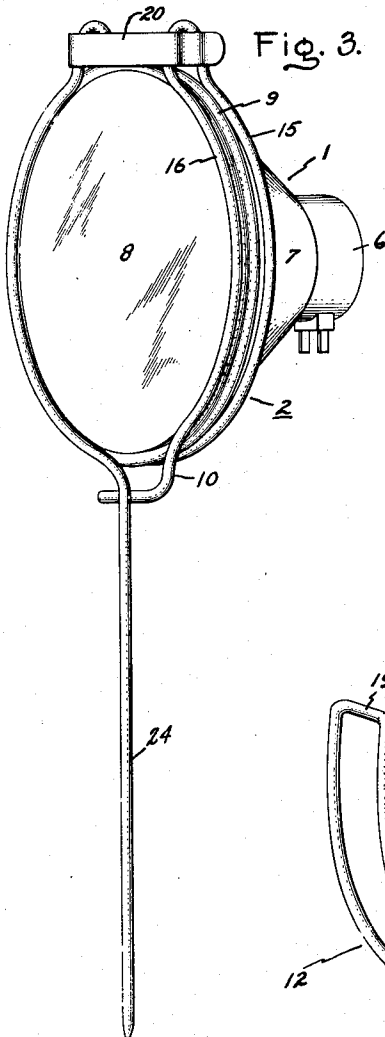
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2 Sheets-Sheet 2



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## UNITED STATES PATENT OFFICE

2,689,909

## HOLDER FOR SEALED BEAM LAMPS

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4 Claims. (Cl. 240—52)

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This invention relates to lampholders and, in particular, to a new and improved lampholder for lamps of the "sealed beam" type.

By "sealed beam" is meant the new lamp family including all those lamps which are formed from a base including an electrical contact, a somewhat conical reflector and a circular heavy glass or plastic lens. The union of the reflector and the lens is formed at the periphery of the lens in a manner that provides a protruding lip extending radially outwardly from the junction line.

Generally speaking, lampholders in existence before the birth of this new "sealed beam" lamp family are not satisfactory for their support, i. e., the old type lampholders were designed to support and contact lightweight incandescent lamps by grasping the lamp at its base. Such lampholders were not designed to support heavy "sealed beam" lamps which have their centers of gravity displaced from the lamp base. The plane of the lens, including the center of gravity, ideally is the gripping location for proper support of a "sealed beam" lamp.

It is an object of this invention, therefore, to provide a new and improved lampholder which clamps onto the beveled edge of a "sealed beam" lamp to provide support at the heaviest portion of the lamp.

It is a further object of this invention to provide a new and improved low cost, durable lampholder which is simple in construction and which uses a minimum of scarce materials.

It is a still further object of this invention to provide a new and improved swivel-type lampholder for "sealed beam" lamps which may be used with any sort of junction box or outlet box cover.

Further objects and advantages of this invention will become apparent and the invention will be more clearly understood from the following description, referring to the accompanying drawing, and the features of novelty which characterize this invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

Briefly, this invention comprises a wire preformed to provide a cradle and a saddle, i. e., a cradle or lampholding portion is formed to grip a lamp about the periphery of the lens while a saddle is formed to provide a swivel mount for the cradle.

In the drawing, Fig. 1 is a perspective view of a lampholder supported on an outdoor weather-proof box, Fig. 2 is a perspective view of the new

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and improved lampholder; Fig. 3 is a modification of the new and improved lampholder shown in Figs. 1 and 2, while Fig. 4 is another view of the embodiments shown in Figs. 1 and 2 with an adapter suitable for handling colored lenses and with a device for mounting the lampholder on an outlet box cover.

Referring to the drawing, lamp 1 is shown supported by a lampholder 2, which in turn is secured by a fitting 3 to a support box 4. The lamp is electrically connected by a female connector 5 to a power supply (not shown) within the box 4.

Lamp 1 is a "sealed beam" lamp comprising a base 6, a conical reflector 7, and a lens 8. Base 6 conventionally has either a screw electrical connection or, as in this embodiment, it has a special cap including a pair of male prongs (Figs. 3 and 4) that engage a female connector 5. The conical reflector 7 of the lamp is shown connected to the lens 8 at a bead or ledge 9—the plane including the bead 9 is the heaviest portion of the lamp.

Lampholder 2 comprises a wire 10 formed to provide a support or saddle 11 and a cradle or lampholding portion 12.

While it is not intended to be a limitation on the scope of this invention, the entire lampholder 2 can be formed from a single piece of wire 10. This can best be explained by reference to Fig. 2 of the drawing. For example, saddle 11 can be considered as comprising two parallel legs 13 and 14, while cradle 12 can be considered as comprising two parallel circles 15 and 16 joined by the U bends 17, 18. Starting from leg 13, a wire would be bent to conform with the shape of half of circle 15 until U bend 17 is reached. The wire then would be bent in conformity with U bend 17 and all of the circle 16 until U bend 18 is reached. The wire would then be bent through U bend 18, the second half of circle 15, and then through leg 14 to be joined by a cross-member 19 which joins legs 13 and 14. This forming process can be started and stopped at any one point, which preferably would be sealed by a weld.

With a structure as thus described, it is obvious that the U bends 17, 18 can be spread apart in conformity with the resiliency of the wire 10 to provide for the insertion of a lamp 1 therebetween, and particularly for the insertion of the lens periphery between the circles 15 and 16.

The support of the lamp 1 will depend on the interaction of the weight of the lamp and the resiliency of the wire 10, i. e., the resiliency of the wire 10 is preferably great enough to enable cradle 12 to hold lamp 1. To provide a more secure grip,

however, a clip 20 may be provided to lock the U bends 17 and 18 relative to one another, thereby eliminating consideration of the resiliency of the wire 10 in the support of the lamp. One such clip 20 is shown in Figs. 1 and 2 as comprising a flat strip of spring steel rotatably secured to one leg of the U bend 17 and spring hooked to a complementary leg of U bend 18.

The fitting 3 which is used to secure the lampholder 2 to a support box 4 should, by definition, include any means for pivotally securing the support 2 to a junction box, cover plate, wall outlet box, or the like. In the embodiment shown, however, fitting 3 comprises a nipple (not shown), a washer 21, and a nut 22. The nipple is a threaded piece of pipe extending outwardly from any supporting member, for example, the cover of a junction box or the support box 4 shown in Fig. 1, which is that particular box described and claimed in the copending application to George Wickman, bearing Serial No. 189,796, filed October 12, 1950, now matured into Patent No. 2,606,218 and assigned to the same assignee as the present invention.

Washer 21 comprises a ring having an inner and an outer concentric circle, with the outer circle having a greater diameter than the spaced apart distance of the two legs 13 and 14, while the inner diameter is suitable to accommodate the nipple which is to extend therethrough. Furthermore, washer 21 is provided with a pair of bent-down ear portions 23 spaced substantially 180 degrees apart. The ear portions 23 have a length less than the diameter of the wire 10 to permit the clamping of legs 13, 14 to the support box. The purpose of the bent-down ears 23 is to lock the wire 10 of the saddle 11 to prevent the spreading of the legs 13, 14 when the nut 22 is threaded onto the nipple to force washer 21 into engagement with the support box 4 that supports the nipple.

In the embodiment of the lampholder shown in Fig. 3, the lampholder 2 has a form somewhat similar to that shown in Figs. 1 and 2, but it is adapted to be a lawn light by driving a prong 24 into the ground. In the embodiment shown in Fig. 3, the cradle 12 is identical with that shown in Figs. 1 and 2, but saddle 11 is supplanted by the prong 24. The end of the convolution of cradle 12 can be welded to prong 24 or, as in the embodiment shown, it is looped behind the prong 24 to provide a frictional engagement between the end of the cradle 12 and the prong 24. The lamp 1 can again be inserted into the cradle 12 of the lampholder, and can be secured by the spring clip 20, or it can be held simply by the resiliency of wire 10 of cradle 12 as described in conjunction with Figs. 1 and 2. The advantage of this embodiment shown in Fig. 3 is that the lamp can be placed anywhere and used for a flood-lamp, or an outdoor searchlight, or for advertising purposes, etc.

A still further embodiment of this invention is shown in Fig. 4 wherein a lampholder 2 and a lamp 1 are identical to those shown in Figs. 1 and 2, but in this embodiment cradle 12 is provided with a plurality of spring clips 25 which preferably are spaced about 120 degrees apart. Each clip 25 comprises a loop portion 26 which grasps the portion 15 of cradle 12, an upturned portion 27 which permits the clip to ride over the top of the head of lamp 1, a bent-down portion 28, allowing the spring clip to ride under the front portion 16

of cradle 12, and a hook portion 29 which is provided as the support to grasp a reflector plate 30. The reflector plate 30 is a disk of colored glass or plastic placed over the lamp 1 to throw a colored spotlight. Such spotlights are commonly used for ornamental or display purposes.

Modifications of this invention will occur to those skilled in the art, and it is desired to be understood, therefore, that this invention is not supposed to be limited to the particular embodiments disclosed, but that it is meant to cover all modifications which are within the true spirit and scope of this invention as defined in the appended claims.

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

1. In a lampholder for lamps of the sealed beam type having a circumferential ledge, said holder comprising a base portion to provide for the variable positioning of said lamp relative to a supporting surface and a lamp gripping portion comprising a pair of resilient arcuate jaws, said jaws being formed of a parallel pair of substantially coextensive circular loops made from a single length of wire such that the jaws may be clamped over the said ledge of a lamp with the ledge being straddled by said loops, the base portion comprising a parallel pair of arcuate strips of wire which lie in planes which are perpendicular to the said loops, with said strips being integral with one of said loops, and adjustable clamping means for securing said base portion to the supporting surface.

2. In a lampholder, as recited in claim 1, wherein a continuous piece of wire is used in forming the entire structure.

3. In combination, a lamp of the sealed beam type having a circumferential ledge adjacent the lens of the lamp and a holder, said holder comprising a single piece of resilient wire formed to provide a cradle or lamp gripping part and an integral portion to provide for the variable positioning of said cradle relative to a supporting surface, said cradle comprising a pair of circular loops in substantially parallel planes which are joined together by two spaced connecting portions extending outwardly from both loops so that a gap is formed in each loop whereby the loops may be held open to receive the ledge of the lamp between said pair of circular loops, the lamp being positively gripped by the normal closing of the loops around the lamp ledge.

4. In a combination of a lamp and a lampholder as is recited in claim 3 wherein there is a clip member for locking the circular loops around said lamp, said clip comprising a spring strip having a hook at one end for rotatably securing said clip on one of the said connecting portions for the loops, and a hook on the other end of said clip for releasably gripping the remaining connecting portion for the said loops.

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