Dec. 27, 1949 J. M. PISTEY 2,492,764

LAMP HOLDER FOR CIRCULAR FLUORESCENT LAMPS

Filed Jan. 16, 1946

Fig. 1

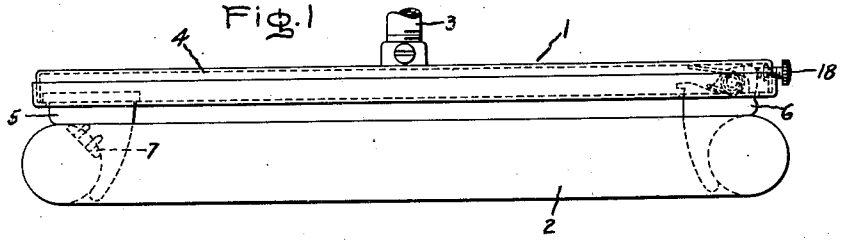


Fig. 2.

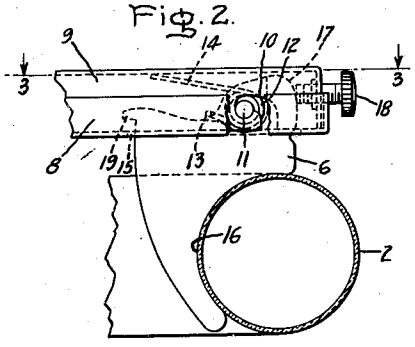


Fig. 3.

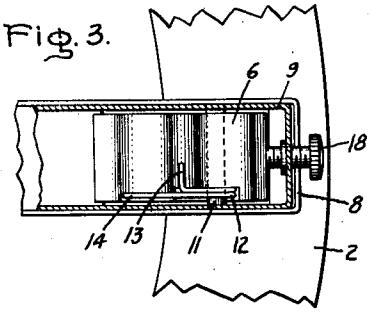


Fig. 4.

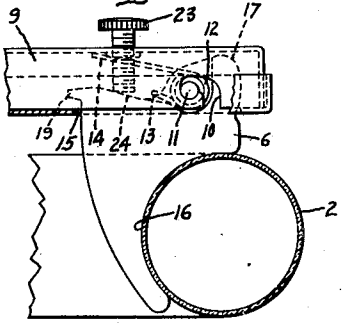


Fig. 6.

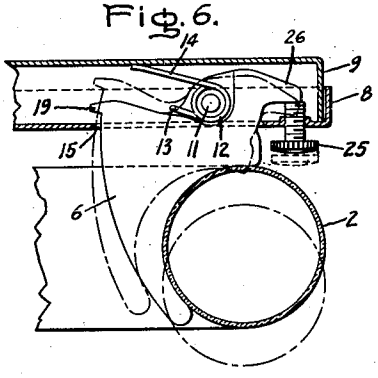
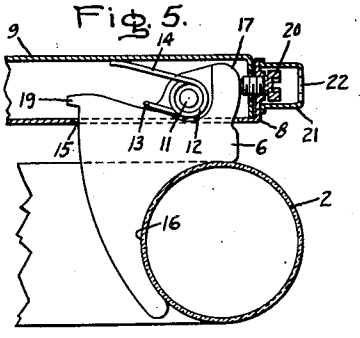


Fig. 5.



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LAMP HOLDER FOR CIRCULAR FLUORESCENT LAMPS

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Application January 16, 1946, Serial No. 641,586

3 Claims. (Cl. 240—51.12)

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My invention relates to lamp holders and more particularly to lamp holders for tubular discharge lamps such as circular fluorescent lamps.

One such lamp holder now on the market comprises an elongated bracket or channel which extends across the loop of the lamp and which is provided with laterally extending arms adapted to engage the periphery of the lamp tube to hold it in position on the bracket. One of the arms is provided with a receptacle for making an electrical connection with the lamp. The other arm is movable so that the lamp may be easily mounted on or removed from the holder. A lamp holder of this type is disclosed in the copending application of Frederick C. Dazley, for Lamp holder for circular lamps, Serial No. 624,036, filed October 23, 1945, and assigned to the same assignee as the instant application.

While for ordinary use, the aforementioned lamp holder holds the lamp firmly in position at all times, under certain conditions it is desirable to provide means for positively locking the lamp in position on the holder. This may be desirable under conditions of extreme vibration. Or it may be necessary in certain locations to prevent theft of the lamp.

Therefore, it is an object of my invention to provide a new and improved lamp holder for supporting and making an electrical connection with circular fluorescent lamps, the holder being so constructed as to permit locking of the lamp in position on the holder.

It is a further object of my invention to provide an improved lamp holder for circular fluorescent lamps, the holder being constructed of relatively few parts which are easily assembled during manufacture so that the holder may be produced at low cost.

In the accompanying drawing, Fig. 1 illustrates a lamp holder constructed in accordance with my invention with a circular fluorescent lamp mounted thereon; Fig. 2 is an enlarged view showing one form of locking means on the lamp holder; Fig. 3 is a sectional view through the holder taken along line 3—3 of Fig. 2; Fig. 4 is a view of a modification of the locking means; Fig. 5 is a view of another form of locking means, and Fig. 6 is a view of a further modification of the locking means.

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Referring to the drawing, Fig. 1 illustrates a lamp holder 1 constructed in accordance with my invention and which carries a circular fluorescent lamp 2. The holder is supported from a fixture pipe 3 forming part of any conventional form of lighting fixture.

The lamp holder 1 comprises a supporting bracket or channel 4 which is adapted to extend across or span the loop of the lamp. It is provided with two arms or supports 5 and 6 which extend laterally from the bracket and which are adapted to engage the inner periphery of the lamp for supporting the lamp on the holder. One of the laterally extending arms, in this case the arm 6, is movable with respect to the supporting bracket 4 so that the two arms may be moved relatively to each other to permit mounting of the lamp on the holder. The other arm 5 is fixed on the bracket and is provided with a contact receptacle 7 for making an electrical connection with the base of the lamp. In mounting the lamp in position, the loop of the lamp may be pressed against the arm 6 to move it to the dotted line position shown in Fig. 6 so that the base of the lamp may be snapped into position on the supporting arm 5 with the lamp contacts in engagement with the contact receptacle on the holder. Or, if desired, the base of the lamp may first be mounted on the arm 5 and then the lamp tube snapped into position on the arm 6. The lamp holder thus far described is similar to the holder described in the aforementioned copending application of Frederick C. Dazley. From one viewpoint, my invention constitutes an improvement over this holder in that it provides means for positively locking the lamp in position on the holder.

Turning now to the construction of the holder and referring to Fig. 2, it will be seen that the bracket 4 comprises two nested channel sections 8 and 9. The upper section 9 is provided with a bayonet slot 10 which receives a pin 11 for pivotally mounting the movable arm 6. A coiled spring 12 is wrapped around the pin 11. One end 13 of the spring engages the arm 6 while the other end 14 engages the upper channel section 9 when the latter is assembled in position. In this way, the torsion spring 12 is used to bias the movable arm 6 outwardly and downwardly into engagement with the tube of the lamp.

The purpose of the bayonet slot 10 is to facilitate assembly of the parts during manufacture. The arm 6, pin 11, and spring 12 are assembled together and then the pin 11 is inserted into position in the bayonet slot 10 in the upper channel section 9. The lower channel section 8 is then slipped into nested position on the channel 9 so that the arm 6 extends through an opening 15 in the lower channel member 8. This provides a quick and easy method of assembling the parts without the necessity of threading the pin through the arm 6 from the outside of the channel sections. In assembled position, the side walls of the lower section 8 extend over the ends of the pin 11 to hold the pin in position and conceal it from view.

In order closely to engage and grip the tube of the fluorescent lamp, the arm 6 is provided with a curved surface 16 which extends around a portion of the periphery of the tube and makes a close and even contact therewith. The spring 12 biases the arm 6 outwardly so that the arm 6 pivots about the pin 10 into engagement with the tube. However, the arm 6 may be easily moved against the biasing action of the spring in a direction toward the other supporting arm 5 to permit easy removal of the fluorescent lamp from the holder. While for most installations, the spring 12 provides an adequate means for holding the arm 6 in engagement with the tube, in certain instances it may be desirable to lock the lamp in position on the holder.

To this end, the arm 6 is provided with a projection or abutment 17 which is engaged by a set screw 18 carried in the end wall of the upper channel section 9. By threading the screw 18 inwardly into engagement with the abutment 17, the arm 6 is rotated about the pivot pin so that it is locked in engagement with the tubular wall of the lamp. Outward movement of the arm 6 is limited by a lip 19 which will engage the wall of the lower channel 8 at a point adjacent to the opening 15. The set screw 18 is mounted in a position at the end of the holder so that it is easily accessible for locking the lamp in position on the holder.

In the form of the invention shown by Fig. 2, the screw 18 is easily reached for manual operation. In some instances, it may be desirable to provide a construction which cannot be operated by hand but which requires a special tool. This is of advantage when it is desired to prevent theft of the lamp. To this end I have shown in Fig. 5 a screw 20 located within a housing 21 fastened to the end of the lower channel 8. The housing 21 is provided with an opening 22 of a shape to receive a key, or other special tool, for turning the screw 20. This makes a construction less likely to be tampered with than that shown by Fig. 2 in which the screw 18 is exposed and may be easily rotated to unlock the lamp.

It should be manifest that the locking screw may be placed at various points on the bracket 4, depending upon the particular installation or lamp fixture in which the holder is to be mounted. In Fig. 4 I have shown an operating screw 23 extending downwardly from the top channel 9 into engagement with a bearing surface 24 adjacent the lip 19. In the modification shown by Fig. 6 I mount a locking screw 25 in the lower channel 8 so that it may be threaded into engagement with a projection 26 formed integrally with the arm 6. The projection 26 is moved upwardly by the screw 25 so that the arm 6 pivots about the pin 11 into engagement with the glass tube of the lamp.

The curved portions of the arms 5 and 6 extend around the periphery of the lamp tube a sufficient distance so that the lamp is securely held in position on the holder without danger of falling out even when the lamp is suspended from the holder, as in the showing of Fig. 1.

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

1. A lampholder for a tubular lamp formed as a loop and having a contact base in its periphery comprising a hollow elongated bracket adapted to extend across the loop of the lamp, a pair of projections extending from one surface of said bracket for engaging and supporting opposite sides of the loop of the lamp, both of said projections having curved finger-like contours, a portion of a curved surface of which is adapted to engage the periphery of the lamp, a contact receptacle carried by one of said projections and adapted to engage the contact base of the lamp for making electrical connection therewith, the other of said projections being pivoted to said bracket and being spring tensioned with respect thereto in a direction away from said receptacle carrying projection and further having an abutment portion extending into said bracket, and screw means carried by said bracket and adapted to engage said abutment portion to move said other projection about its pivot into engagement with the lamp to lock the lamp in the holder.

2. A lampholder for a tubular lamp formed as a loop and having a contact base in its periphery comprising a hollow elongated bracket adapted to extend across the loop of the lamp, said bracket being formed of nesting sheet metal channels, a pair of projections extending from one surface of said bracket for engaging and supporting opposite sides of the loop of the lamp, both of said projections having curved fingerlike contours, a portion of a curved surface of which is adapted to engage the periphery of the lamp, a contact receptacle carried by one of said projections and adapted to engage the contact base of the lamp for making electrical connection therewith, the other of said projections having pivot pin members extending from the sides thereof and journalled in openings in the sides of one of said channels, a coiled spring wrapped around one of said pin members and having one end in engagement with the projection and its other end in engagement with one of said channels, the spring ends being arranged to tension said other projection in a direction away from the receptacle carrying projection, said other projection further having an abutment portion extending into said bracket, and screw means carried by said bracket and adapted to engage said abutment portion to move said other projection about its pivot into engagement with the lamp to lock the lamp in the holder.

3. A lampholder for a tubular lamp formed as a loop and having a contact base in its periphery comprising a hollow elongated bracket adapted to extend across the loop of the lamp, said bracket being formed of nesting sheet metal channels, a pair of projections extending from one surface of said bracket for engaging and supporting opposite sides of the loop of the lamp, both of said projections having curved fingerlike contours, a portion of a curved surface of which is adapted to engage the periphery of the lamp, a contact receptacle carried by one of said projections and adapted to engage the contact base

of the lamp for making electrical connection therewith, the other of said projections having pivot pin members extending from the sides thereof and journalled in openings in the sides of one of said channels, a coiled spring wrapped around one of said pin members and having one end in engagement with the projection and its other end in engagement with one of said channels, the spring ends being arranged to tension said other projection in a direction away from the receptacle carrying projection.

JOHN M. PISTEY.

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