

Oct. 28, 1947.

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2,429,951

BRACE FOR FLUORESCENT LAMP SOCKETS

Filed Nov. 22, 1946

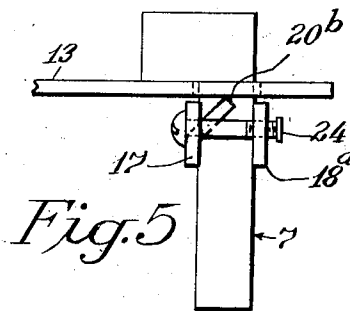
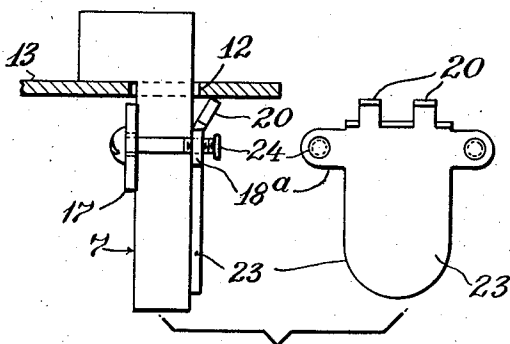
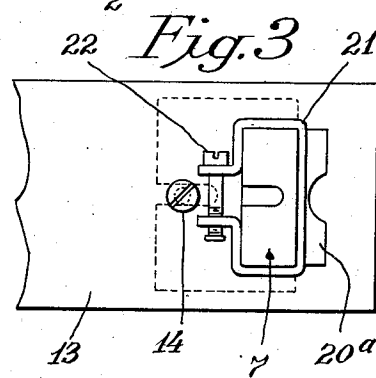
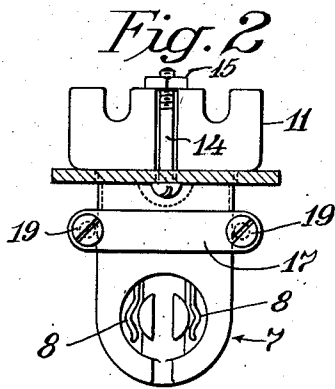
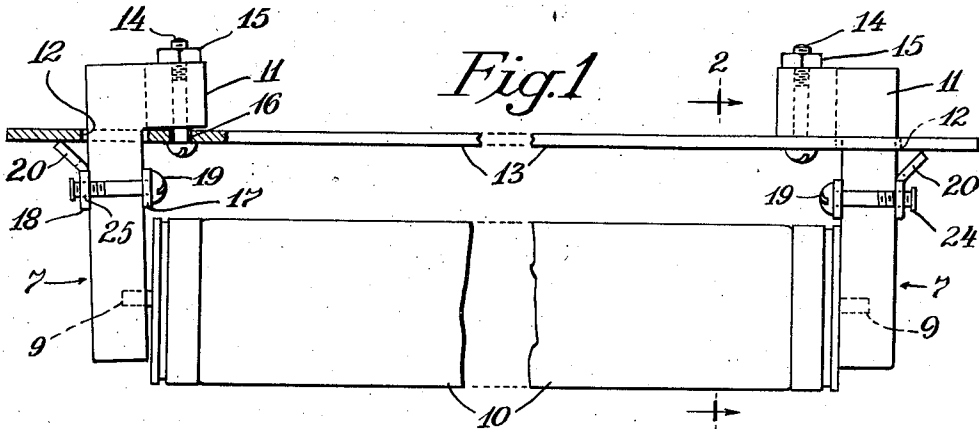


Fig. 4

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2,429,951

BRACE FOR FLUORESCENT LAMP
SOCKETS

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Application November 22, 1946, Serial No. 711,787

8 Claims. (Cl. 173—339)

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The invention here disclosed relates to the mounting of fluorescent lamp sockets.

The manner in which the lamps are engaged in these sockets has a tendency to force the sockets apart and frequently they are separated to such an extent that the lamps are insecurely held and actually may not make proper electrical connection with the socket contacts.

In forcing the lamps into place the screws which hold the sockets may be loosened and this further increases the undesirable tendencies mentioned.

The back plates on which the sockets are mounted are usually of light sheet metal which will yield to the spreading effect described, further aggravating these objectionable conditions.

Objects of the present invention are to provide means for correcting such conditions and in a form which will not take up much space or in any way impair the sockets or the fixtures on which the sockets are mounted, and which means will be of a simple, inexpensive character readily applicable to existing sockets and fixtures without requiring exercise of any special skill.

Other desirable objects and the novel features through which the purposes of the invention are attained are set forth or will appear in the course of the following specification.

The drawing accompanying and forming part of the specification illustrates certain present embodiments of the invention. Structure, however, may be further modified and changed, all within the true intent and broad scope of the invention as hereinafter defined and claimed.

Fig. 1 in the drawing is a broken part sectional view illustrating a pair of sockets holding a fluorescent lamp and showing how they may be independently adjusted and secured to properly hold the lamp;

Fig. 2 is a view of the right-hand socket and the clamp brace for holding the same, as appearing on substantially the plane of line 2—2 of Fig. 1;

Fig. 3 is an end view of the same socket but clamped with a brace of another form;

Fig. 4 is a composite view showing a socket clamped with another modified form of the invention and showing further the bracing and reinforcing plate forming an essential part of this particular embodiment;

Fig. 5 is an edge view showing another embodiment of the invention.

In these latter views the base plate is shown broken away, and in Fig. 4, in section.

The pair of fluorescent lamp sockets illus-

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trated in Fig. 1 are of conventional design having an extending post portion 7 containing the springs 8 for engagement by the contact pins 9 of the lamp 10 and a laterally extending base portion 11.

These sockets are usually mounted, as shown, with the lamp supporting post portions 7 projecting through openings 12 in the back plate 13 of the fixture and the base portions 11 at the back of this plate and secured in such relation by screws 14 engaged with nuts 15 on such base portions.

A certain amount of play is necessarily allowed for where the posts project through openings 12 and the screws pass through openings 16 in the back plate. Such play may also contribute to the unsatisfactory holding of the lamps in the sockets, referred to above.

The first embodiment of the invention illustrated in Figs. 1 and 2, comprises a clamp made up of two small strips 17, 18 designed to lie against opposite faces of the post portion 7 and held so by screws 19 securing the ends of the strips together and extending across the end faces of the post, one of the strips having an extension at its inner edge inclined away from the plane of the strip to form an inclined brace 20 engageable with the face of the back plate at a point offset from the face of the post portion.

The clamp described can be easily slipped over the end of the post 7, when the lamp is not in place, and be adjusted to a position where, by engagement of the inclined strut 20 with the back plate, it will hold the socket at the proper angle for tightly securing the lamp. This may be somewhat of an acute angle, as shown at the left in Fig. 1, a true right angle, as shown at the right in this view, or at various other angles that will insure proper holding of the lamp.

As an aid to properly adjusting and securing the bracing clamp, the screw 14 which holds the socket to the back plate may first be loosened to permit the socket to be swung one way or another, that is, toward or away from the other companion lamp socket. Then after the brace is clamped in adjusted relation on the socket the screw 14 at the back may be tightened to rigidly fasten the socket in the position to which it has been set. These adjustments are made when there is no lamp in the sockets and hence when the screws 14 and 19 can easily be reached and the clamp be shifted back and forth on the post until just the desired angular relation on the socket is attained.

Instead of a two-piece form of construction,

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the clamp may be of one-piece design, formed as a band 21, Fig. 3, to encircle the post portion of the socket and having its ends adjustably secured together by a single clamp screw 22, this band having an inclined brace extension 20a at the outer side of the clamp to engage the face of the back plate 13.

The bracing clamp may be utilized to stiffen and reenforce the extending post portion of the socket, as shown in Fig. 4, by making the outer clamp strip 18a with a flat extension 23 to lie against the outer face of the post. This stiffening element strengthens the post so that it cannot be bent or broken by forcing a lamp into position between the sockets.

While the clamp takes up very little space, it is realized that there may be instances in which there may not be room for the inclined brace 20 at the outer side of the socket.

To take care of such a situation the clamp may be made as in Fig. 5, with an inclined brace or braces 20b at one or both ends of the inner clamp plate 17 disposed in the space in line with the edges of the socket, these braces inclining outwardly the same as those first described and therefore having the same effect of holding the sockets inwardly toward the ends of the lamp.

In applying the clamps to the sockets, the screws may be fully loosened so that the clamps may be freely shifted back and forth to ascertain the best positions on the sockets. To avoid loss of the screws under such circumstances, the screws may be somewhat longer than would ordinarily be provided and have their ends upset as indicated at 24 to prevent them coming out of the screw seats 25.

The combined clamp and brace is particularly simple and inexpensive and can be applied and adjusted by practically anyone. The disposition of the clamp screws across the ends of the socket locates the screw heads where they will not interfere with the end of the lamp.

What is claimed is:

1. An attachment for a fluorescent lamp socket having a post portion to project through an opening in the back plate of a fixture and a laterally extended base portion to lie at the back of said back plate, and comprising a clamp adjustably engageable over said projecting post portion and having a backwardly extending inclined brace portion engageable with the face of the back plate to hold the socket in a selected angular relation to the back plate determined by the adjustment of said clamp on the projecting post portion of the socket.

2. An attachment for a fluorescent lamp socket having a post portion to project through an opening in the back plate of a fixture and a laterally extended base portion to lie at the back of said back plate, and comprising a clamp adjustably engageable over said projecting post portion and having a backwardly extending inclined brace portion engageable with the face of the back plate to hold the socket in a selected angular relation to the back plate determined by the adjustment of said clamp on the projecting post portion of the socket, said clamp having screw means for fixing the same firmly in adjusted relation on the post portion of the socket.

3. An attachment for a fluorescent lamp socket having a post portion to project through an opening in the back plate of a fixture and a laterally extended base portion to lie at the back of said back plate, and comprising a clamp adjustably engageable over said projecting post portion and

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having a backwardly extending inclined brace portion engageable with the face of the back plate to hold the socket in a selected angular relation to the back plate determined by the adjustment of said clamp on the projecting post portion of the socket, said clamp composed of front and back plates engaging opposite faces of the post portion and screws connecting said clamp plates and extending across the end faces of said post portion.

4. An attachment for a fluorescent lamp socket having a post portion to project through an opening in the back plate of a fixture and a laterally extended base portion to lie at the back of said back plate, and comprising a clamp adjustably engageable over said projecting post portion and having a backwardly extending inclined brace portion engageable with the face of the back plate to hold the socket in a selected angular relation to the back plate determined by the adjustment of said clamp on the projecting post portion of the socket, said clamp composed of a band encircling the post portion and a screw adjustably connecting the ends of said band.

5. An attachment for a fluorescent lamp socket having a post portion to project through an opening in the back plate of a fixture and a laterally extended base portion to lie at the back of said back plate, and comprising a clamp adjustably engageable over said projecting post portion and having a backwardly extending inclined brace portion engageable with the face of the back plate to hold the socket in a selected angular relation to the back plate determined by the adjustment of said clamp on the projecting post portion of the socket, said clamp further having a reenforcing extension projecting in the opposite direction from said inclined brace across the outer face of the post portion of the socket.

6. An attachment for a fluorescent lamp socket having a post portion to project through an opening in the back plate of a fixture and a laterally extended base portion to lie at the back of said back plate, and comprising a clamp adjustably engageable over said projecting post portion and having a backwardly extending inclined brace portion engageable with the face of the back plate to hold the socket in a selected angular relation to the back plate determined by the adjustment of said clamp on the projecting post portion of the socket and said inclined brace being located at one end of said clamp and extending across the end face of said post portion of the socket.

7. An attachment for straightening a fluorescent lamp socket on the fixture on which it is mounted, and comprising a clamp adjustably engageable on the socket, said clamp having a backwardly extending brace projecting in the direction to engage the fixture on which the socket is mounted and engageable with the supporting fixture at a point to one side of the socket to thereby apply leverage to the socket in a direction to set and hold the socket in the angular relation required to enable the socket to properly hold the end of a fluorescent lamp.

8. An attachment for straightening a fluorescent lamp socket on the fixture on which it is mounted, and comprising a clamp adjustably engageable on the socket, said clamp having a backwardly extending brace projecting in the direction to engage the fixture on which the socket is mounted and engageable with the supporting fixture at a point to one side of the socket to thereby apply leverage to the socket in a direction to set

and hold the socket in the angular relation required to enable the socket to properly hold the end of a fluorescent lamp, said clamp being made up of a pair of opposed clamp plates secured together by screw means, and said brace being a continuation of one of said clamp plates extending at an incline away therefrom.

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