

May 1, 1928.

J. R. TOWNSEND

1,667,910

LAMP GRIP

Filed March 24, 1924

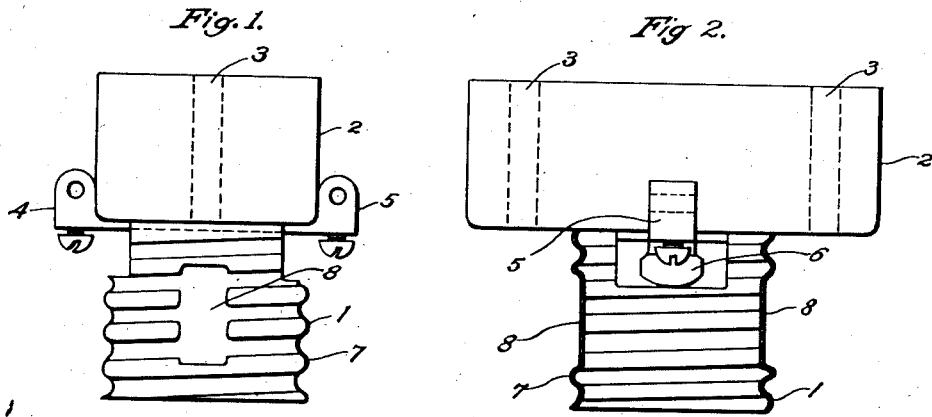


Fig. 3.

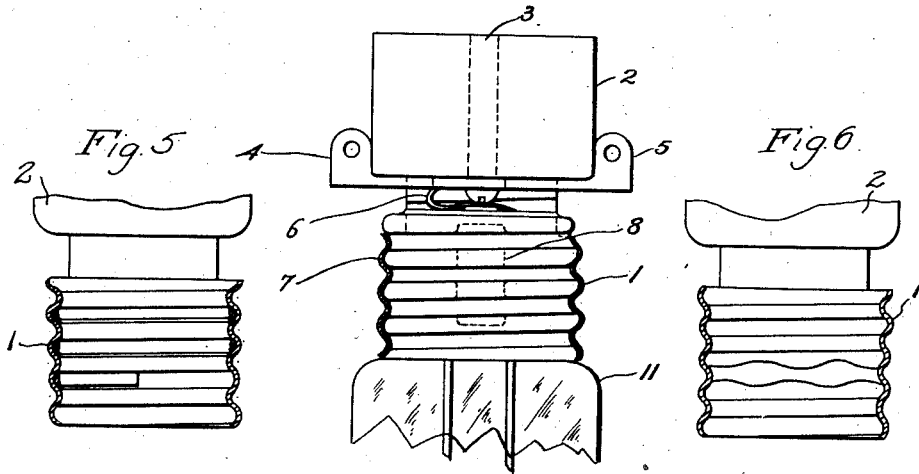
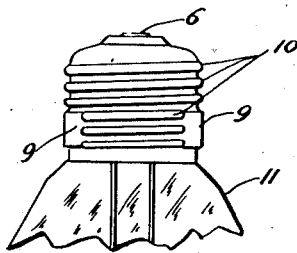


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN B. TOWNSEND, OF SOUTH BEND, INDIANA, ASSIGNOR TO GEORGE CUTTER COMPANY, A CORPORATION OF INDIANA.

LAMP GRIP.

Application filed March 24, 1924. Serial No. 701,281.

My invention relates to lighting fixtures and particularly to retainers for electric lamps, fuse plugs and the like.

One object of my invention is to provide a lighting fixture in which the lamp cannot be unintentionally detached.

Another object of my invention is to provide a lighting fixture in which the threaded members shall be held against displacement by frictional engagement.

Another object of my invention is to provide a retaining means which shall be embodied in a standard lamp base or fuse plug without any additional parts, and which shall be operated in the usual well known manner.

Still another object of my invention is to provide a threaded socket or receptacle which shall comprise a minimum number of parts and be cheap to manufacture.

The standard fixture comprises a threaded sheet metal collar mounted on a base of insulating material. Electrical connectors are brought through the base and connected to suitable terminals. The lamp base or fuse plug is screwed into the threaded collar and the connection is made with the terminals in a well known manner. When the fixture is subjected to vibration, it is a common occurrence for the lamp to become loose in the socket, to break the electrical connection and cause the light to flicker, and in some instances the lamp becomes unscrewed and detaches itself from the socket.

Hitherto, devices to prevent loosening of the lamp have been proposed, but usually such structures comprised a number of parts in addition to the threaded members. One type of retainer comprised a threaded receptacle provided with a leaf spring attached inside of the receptacle for holding the threads of the lamp base and receptacle in engagement. A recess was provided in the threaded portion of the receptacle for accommodating the spring when the lamp was inserted. Other retainers comprising latches and springs attached to the receptacle and bearing against the threads of the lamp have been proposed, but they were unnecessarily complicated, and the mechanism was easily put out of order.

My invention provides a receptacle having flattened portions in the threads thereof which cause a distortion of the receptacle when the lamp is inserted thereinto. When

distorted, the flattened portions bear against the threads of the lamp base and the threaded portion of the receptacle is contracted so that it tightens around the threads of the lamp base.

In the drawing constituting a part hereof, and in which like characters designate like parts,

Figure 1 is a front elevational view of a standard lamp socket with the casing removed, showing a flattened portion thereon,

Fig. 2 is a cross-sectional view of the socket shown in Fig. 1,

Fig. 3 is a view partially in cross-section and partially in elevation, of a socket and lamp, and

Fig. 4 is a fragmentary elevational view of a lamp showing a modification of my invention,

Fig. 5 is a view, partially in cross-section and partially in elevation, showing another modification of my invention,

Fig. 6 is a view, partially in cross-section and partially in elevation, showing still another modification of my invention.

The fixture represented in Figures 1, 2 and 3 of the drawing comprises a threaded sheet metal socket or receptacle 1 mounted on an insulator 2 which is provided with screw holes 3 for attaching it to a support. A terminal 4 electrically connected to the sheet metal receptacle 1 is mounted on the insulator 2 in a well known manner. Another terminal 5 is also mounted on the insulator 2 and is adapted to be electrically connected to the central terminal 6 of the lamp 11 when it is in operative position.

Portions of those of the threads 7 of the receptacle are flattened at diametrically opposite points 8 so that the diameter of the receptacle between the flattened portions 8 is approximately the same as the distance between the inside of the threads of the receptacle. Consequently, the threads of the lamp base or plug bear against the flattened surface 8 and are retained by frictional engagement. The receptacle is thereby distorted and caused to assume an elliptical form and the threads of the receptacle are therefore caused to tighten around the threads of the lamp base or plug when the same is in operative position.

A modification of my invention is shown in Fig. 4. Instead of flattening the threads of the receptacle, I form the base of the

lamp 11 with one or more unthreaded or flattened portions 9 so that the diameter thereof is of substantially the same as that of the outer edges of the threads 10.

5 When the lamp base is screwed into a standard socket or receptacle, the flattened portions 9 bear against the threads of the socket and force the socket into an elliptical form. The threads of the socket grip 10 the threads of the lamp base and they also bear against the unthreaded portions 9 of the lamp base thereby preventing the accidental loosening thereof.

15 Although I have shown two specific embodiments of my invention I do not wish to be limited thereto. Other modifications will suggest themselves to those skilled in the art. For instance, I may flatten portions of greater or less extent than shown or I may 20 fill a part of the threads of a standard lamp base or receptacle with solder or the like in order to form an unthreaded portion thereon as shown in Fig. 5. Still another modification of my invention may comprise forming 25 an enlarged portion or a wave-like portion in the thread of the receptacle or lamp base as shown in Fig. 6 in which such that the wall of the receptacle is forced outwardly when the lamp base is in operative position.

30 I claim as my invention:

1. A device for mounting lamps which comprises a threaded receptacle member, a threaded base member and a flattened surface in the threaded portion of one of said 35 members for distorting one of said members and frictionally retaining said members when in engagement.

2. A device for mounting lamps which

comprises a threaded receptacle member, a threaded base member attached to the lamp, 40 broken threads in said receptacle and flattened portions in said receptacle between the ends of said broken threads for distorting said receptacle when said members are in engagement. 45

3. A device for mounting lamps which comprises a threaded receptacle member, a threaded base member attached to the lamp, broken threads in said base and flattened 50 portions in said base between the ends of said broken threads for distorting said receptacle when said members are in engagement.

4. A device for mounting lamps which comprises a threaded receptacle member, a 55 threaded plug member and means for retaining said plug by distorting one of said members, said means comprising coating threads in said plug and receptacle and a flattened surface extending across a plural- 60 ity of threads of one of said members.

5. A device for mounting lamps which comprises a threaded receptacle member, a threaded plug member and means for preventing the unintended loosening of said 65 members, said means comprising unbroken threads in one of said members and broken threads and flattened portions in the other member, thereby causing distortion of one of said members when said members are in 70 engagement.

In testimony whereof, I have hereunto subscribed my name this 13th day of March, 1924.

JOHN R. TOWNSEND.