G. C. KNAUFF.

ELECTRIC SOCKET.

APPLICATION FILED SEPT. 9, 1915.

1,201,830. Patented Oct. 17, 1916.

Fig. 1.

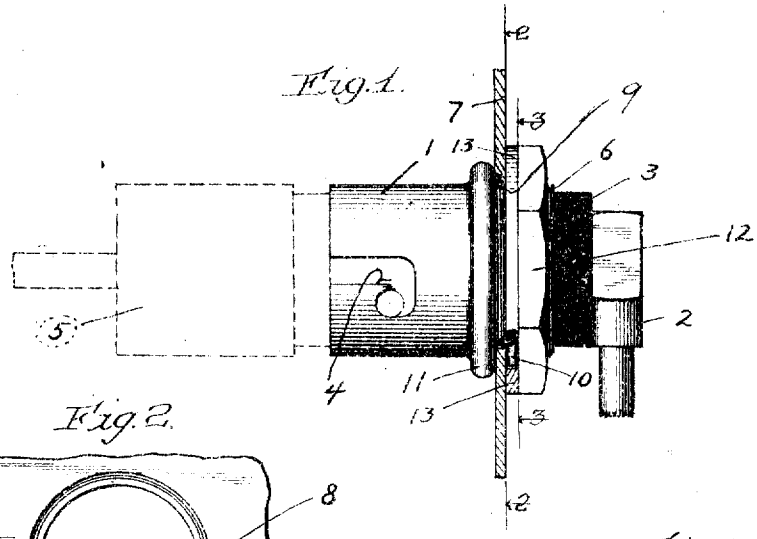


Fig. 2.

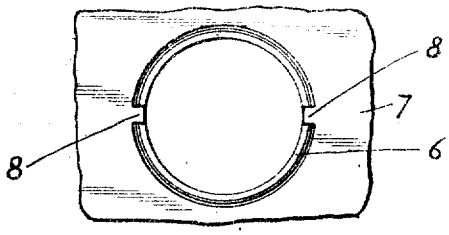


Fig. 3.

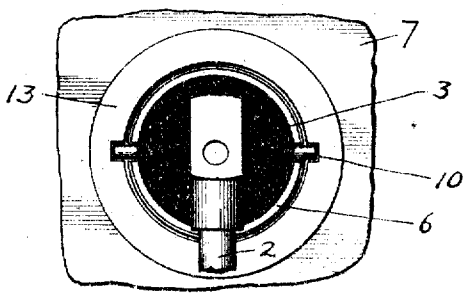


Fig. 4.

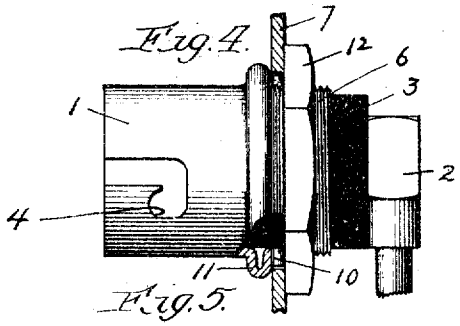


Fig. 5.

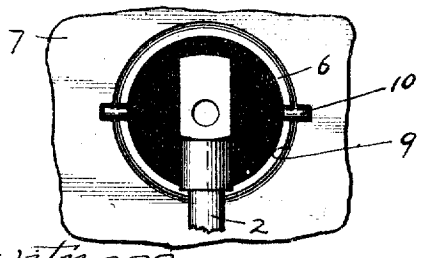
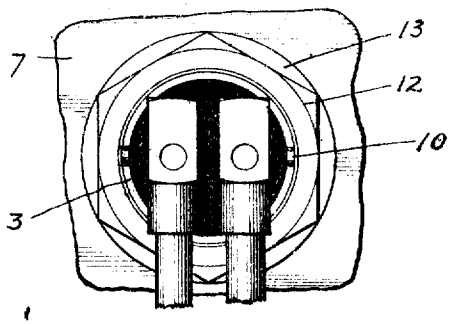


Fig. 6.



Witness:

E. L. Farrington

Inventor: George C. Knauff

by Albert Scheible, Attorney

UNITED STATES PATENT OFFICE.

GEORGE C. KNAUFF, OF CHICAGO, ILLINOIS.

ELECTRIC SOCKET.

1,201,830. Specification of Letters Patent. Patented Oct. 17, 1916.

Application filed September 9, 1915. Serial No. 49,698.

To all whom it may concern:

Be it known that I, GEORGE C. KNAUFF, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric Sockets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to electric lamp sockets or connectors, its general objects being to provide a simple and cheap construction for firmly but detachably securing such a socket to a support, and for simultaneously securing the body member or "works" of the socket to the casing.

More particularly, my invention aims to provide a socket construction from which the body member may readily be removed, so as to permit a speedy substitution of a single-pole for a double-pole mechanism or vice-versa: to provide simple and effective means for preventing a relative rotation of the body member and the casing both with respect to each other and with respect to the support: to provide simple means for detachably but firmly securing the entire socket to a metal wall or other support, and preferably to provide means for simultaneously securing the casing firmly and non-rotatably to both the body member and the support: also, to provide means for preventing a loosening or possible losing of the anchoring pins used for securing the body member to the casing and the support.

Further objects will appear from the accompanying drawings, in which—

Figure 1 is a partially sectioned side elevation of a single pole socket embodying my invention. Fig. 2 is an end view, taken from the line 2—2 of Fig. 1 with the nut and body of the socket removed. Fig. 3 is an end view of the socket with the nut removed. Fig. 4 is a fragmentary side view of a somewhat simplified embodiment. Fig. 5 is an end view of the embodiment of Fig. 4. Fig. 6 is an end view of the embodiment of Fig. 4 when fitted with a body member carrying two wire terminals.

My invention may be embodied with substantially equal advantages in single-pole sockets having one circuit-terminal grounded to the socket casing and in double-pole sockets having the circuit insulated from the casing and may also be carried out either with or without an auxiliary member between the locking nut and the support to which the socket is secured. Thus, Figs. 1 to 5 show embodiments of my invention suitable for use on automobile lighting circuits where one terminal of the circuit is grounded to the casing 1 of the socket, while the other terminal 2 is insulated therefrom by the body 3. The casing 1 is equipped at one end with bayonet catch formations 4 for interlocking the casing with a connector plug or other terminal carrier 5, and at its other end has an outwardly threaded portion 6 extending through the support 7 by which the socket or connector is to be carried. This support may be a portion of a lamp casing, reflector, dash-board or the like and in the embodiment of Figs. 1 and 2 has a pair of tongues 8 projecting radially inward of the perforation 9 through which the socket portion 6 extends. This latter portion is equipped with longitudinal slots entered by the tongues 8, which tongues engage the walls of said slots to prevent the socket casing from rotating with respect to the support 7. The insulating body 3 of the socket or connector is slidable within the casing 1 and has fast upon it a pair of pins 10 projecting through the said longitudinal slots and extending beyond the outer surface of the socket casing. These pins engage one face of the support 7, while the opposite face is engaged by a radially outwardly projecting portion of the casing, such as a bead 11, thereby permitting the support to be clamped between said bead and pins by tightening a nut 12 threaded upon the rear end 6 of the socket casing. When the casing is thus clamped to the support, the clamping of the pins between the support and the nut 12 simultaneously anchors the body member of the socket with respect to the casing, so that no other fastening will be needed for securing the insulating body (and the wire terminal or terminals carried by the latter) to the casing.

To prevent a possible loosening of the pins 10 from the insulating body into which they may merely be driven without being threaded, the projecting ends of these pins may be housed by recesses in a washer 13 interposed between the support 7 and the nut 12. Or, the corresponding recesses may be formed in the support 7 as shown in Fig.

5, in which case both the tongues 8 and the washer 13 may be omitted and the nut 12 may be drawn up directly against the support 7 as shown in Fig. 4. In either case, it will be obvious that the single fastening member 12 secures both the body or "works" of the socket and the support to the casing, and that by removing this nut the structure may quickly be disassembled. Thus, the socket may readily be detached from the support to permit the latter to be plated or otherwise finished, thereby avoiding the difficulties heretofore encountered when socket casings were soldered or brazed to the metal parts supporting the same. So also, the removing of the single nut readily permits the substitution for a single-pole socket interior of one equipped for double-pole use, when it is desired to change the lamps or connector plugs used with my invention. However, while I have shown and described the clamping means of my invention as including a nut threaded upon the casing, and have shown the outward projection upon the socket in the form of a bead, I do not wish to be limited to these or other details of the construction herein disclosed, it being obvious that the same might be modified in many ways without departing from the spirit of my invention.

I claim as my invention:

1. The combination with a support having a perforation, of a casing projecting through said perforation and equipped with a longitudinal slot, a body member slidably housed by the casing, an element carried by said member and projecting into said slot, and means for securing said element to the support.

2. The combination with a support having a perforation, of a casing projecting through said perforation and equipped with a longitudinal slot, a body member slidably housed by the casing, an element carried by said member and projecting through said slot, and means carried by the casing and engaging said element for simultaneously anchoring the casing to the support and the body member.

3. The combination with a support having a perforation, of a casing projecting through said perforation and equipped with a longitudinal slot, a body member slidably housed by the casing, an element carried by said member and projecting into said slot, and means for securing said element to the support, and means for preventing a movement of said element radially of the casing.

4. The combination with a support having a perforation, of a casing projecting through said perforation and equipped with a longitudinal slot, a body member slidably housed by the casing, and means associated with said slot for preventing relative rotation of the casing, support and body member.

5. Means for non-rotatably securing both a longitudinally slotted socket casing and the body member of a socket to a supporting member equipped with a perforation entered by said casing and with a projection entering a slot of the casing, including an element carried by the body member and projecting through said slot beyond the exterior of the casing upon one side of the supporting member, an enlargement carried by the casing upon the opposite side of the supporting member, and means for clamping the supporting member between said element and said enlargement.

6. Means for non-rotatably securing both a longitudinally slotted socket casing and the body member of a socket to a supporting member equipped with a perforation entered by said casing and with a projection entering a slot of the casing, including an element carried by the body member and projecting through said slot beyond the exterior of the casing upon one side of the supporting member, an enlargement carried by the casing upon the opposite side of the supporting member, and means threaded upon the casing for clamping the supporting member between said element and said enlargement.

7. The combination with a support having a perforation, of a casing projecting through said perforation and equipped with a longitudinal slot, a body member slidably housed by the casing, an element carried by said member and projecting into said slot, and means for securing said element to the support, and means associated with said slot and said element for preventing rotation of the casing with respect to the support and the body member.

8. The combination with a support having a perforation, of a casing projecting through said perforation and equipped with a longitudinal slot, a body member slidably housed by the casing, an element carried by said member and projecting into said slot, and means for simultaneously securing the casing to both the support and the body member.

9. The combination with a support having a perforation, of a casing projecting through said perforation and equipped with a longitudinal slot, a body member slidably housed by the casing, an element carried by said member and projecting into said slot, and means for clamping the support between portions of the body member and casing.

GEORGE C. KNAUFF.