

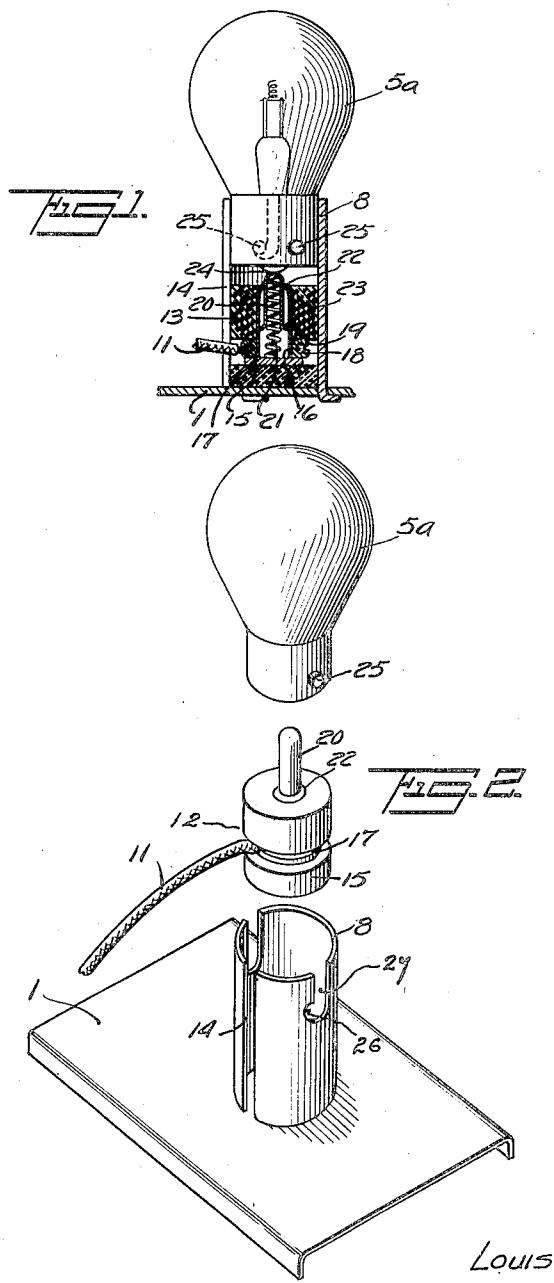
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LAMP SOCKET

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# UNITED STATES PATENT OFFICE.

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## LAMP SOCKET.

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This invention relates to lamp sockets for various uses, as, for example, in an automobile signal box or casing, and is for the purpose of improving the durability, increasing the simplicity of manufacture, and particularly the convenience and economy of assembling the parts, and various other features of construction which will hereinafter be more fully set forth and which have various advantages which will appear from the following.

In particular, the construction herein set forth in detail relates to the wiring connections, and more particularly the arrangement of wiring and the connection of contacts with an electric light bulb socket, in order to assure perfect contact, great convenience of assembling of parts, and cheapness of manufacture and assembling of the parts.

Particular embodiments of my invention are shown in the accompanying drawings, in which:

Fig. 1 is a section through the lamp socket and terminal.

Fig. 2 is a perspective of the parts of lamp socket, with lamp in the course of assembly.

When used in a signal case or otherwise, there would be a wall or suitable base 1; and if situated inside of a casing for box it need be provided only with a hole large enough to permit the entry of the lead terminal through one wall, as the nature of the invention permits ready assembly even in otherwise awkward places which cannot be reached for satisfactory insertion or assembly of other types of sockets.

On the wall 1 lamp socket, 8, is suitably positioned.

The lighting current lead can best be described with reference to a single one 11. Each such lead provides for single current, and the other terminal of the lamp is grounded to the box and the box in turn is suitably grounded. The lead terminal 12 comprises an insulation plug 13 to which the lead wire is fastened by a tight frictional fit, as will hereinafter be described, but the insulation lug 12 having been attached to the end of the lead wire 11, fits snugly into the socket 8 and can be inserted therein while the lead wire 11 passes through a slot, in the socket 14, so that without any screwing or clamping the terminal lug of the lead wire is forced into a secure seat at the bottom of

the lamp socket and against an insulation base washer 15 which insulates this lead of the current from the rest of the socket support.

The lead lug is formed of hard rubber or bakelite, or other suitable insulating material, and of a size to snugly fit the interior of the socket, and has forced into its base a ferrule 16 with a head 17 which presses against an eyelet 18 which is formed around an end loop 19 of the lead wire. The ferrule being pressed into the loop made into the wire, is soldered thereto and the eyelet end bent over and pressed to form a permanent end loop so that the ferrule 16 can be forced into the eyelet and insure a tight contact fit. Before the ferrule is pressed into the insulation lug 13, a yielding contact 20 with a spring 21 inserted therein, is dropped into the cylindrical opening of the ferrule and the ends 22 of the ferrule are peened over to engage a small collar 23 on the inner end of the yielding contact 20. Thus the yielding contact centrally positioned in the socket offers a yielding engagement with the central contact 24 of the lamp base and the relative dimensions are such that the lamp base will press against and assure a good contact with yielding contact 20 when the lamp base is pushed into the socket with the pins 25 engaging the notches 26 at the bottom of the slots 27 in the end of the socket, which together constitute a double bayonet joint.

The assembly of the terminal lugs involves the simple operation of looping the wire end around an eyelet and soldering the same and pressing the eyelet over the loop, after which the tubular contact is pressed into the eyelet assuring a perfect contact, while the tubular contact has previously been supplied with the movable contact pin and the outer end of the tubular contact bent over to prevent dislodging of the movable contact pin and limit its motion to the extent such as shown.

While it will be seen that various modifications may be made in the construction, and the inventions herein set forth may be combined in many other ways with signal boxes or with other devices requiring the advantageous constructions of parts herein specifically set forth, what I claim and desire to secure by Letters Patent is:

1. A lamp socket including a fixed tubular member having one end adapted by closed attachment for rigid support and having the

other end open and free, means for attachment of a lamp at the free end, a longitudinal slot extending from the free end part way down one side, a contact lug and a permanently pre-attached lead wire adapted to be inserted in the socket from the free end with the lead wire sliding through said slot, and contact means projecting from the lug to engage an inserted light bulb.

2. A lamp socket having a lamp-holding end, a lead wire having a fixedly presecured contact lug including with the lug unit an insulation block adapted to be pressed into

the socket through the lamp-holding end in cooperation with a slot along one side of the socket and open at the lamp-holding end to permit the passage of the wire, to hold the lead wire end in contact position, whereby assembly or disassembly of the lead with the socket is provided by slipping the lug through the lamp-holding end of the socket.

In testimony whereof, I have signed my name to this application this 16 day of January, 1923.

LOUIS VAN GALE.