Nov. 22, 1932. L. ERIKSON 1,888,714

TWO-PART ELECTRIC LAMP SOCKET

Filed March 5, 1931

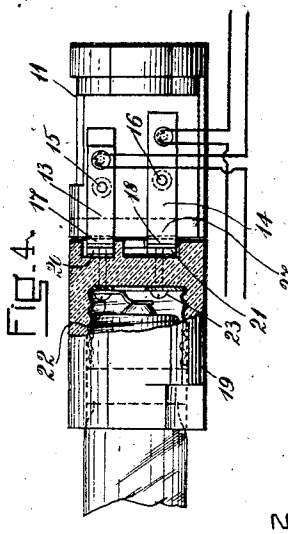


Fig. 4.

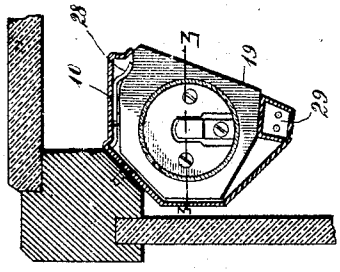


Fig. 2.

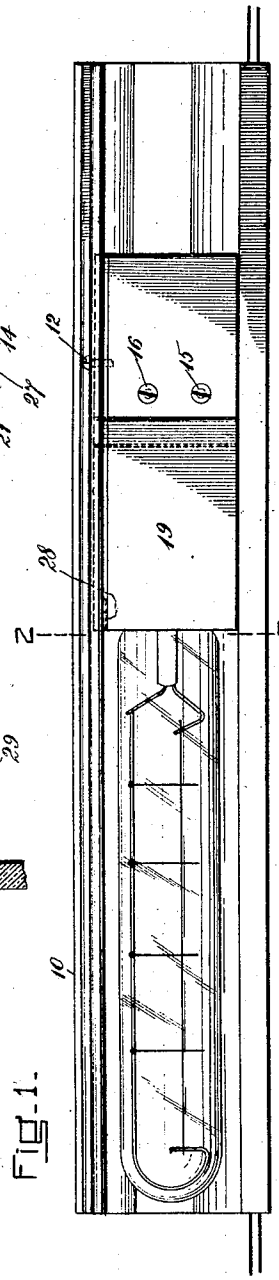


Fig. 1.

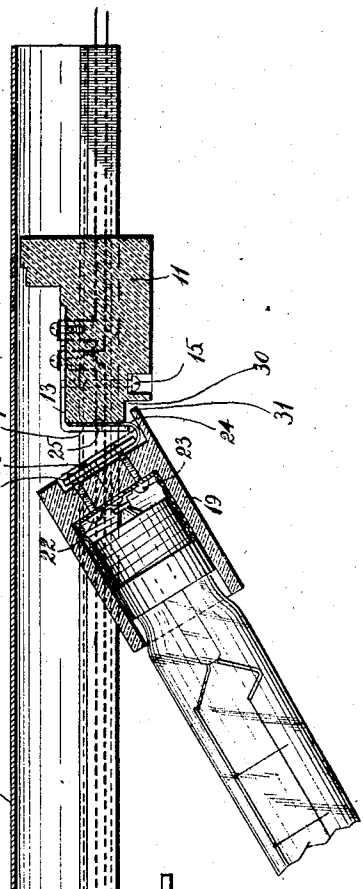


Fig. 3.

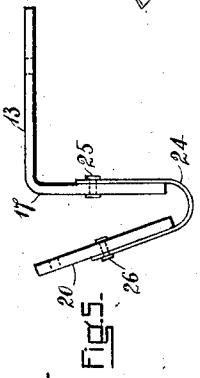


Fig. 5.

INVENTOR:
Leonard Erikson
By Geo. K. Woodworth
ATTORNEY:

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UNITED STATES PATENT OFFICE

LEONARD ERIKSON, OF MALDEN, MASSACHUSETTS, ASSIGNOR TO ERIKSON ELECTRIC COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS

TWO-PART ELECTRIC-LAMP SOCKET

Application filed March 5, 1931. Serial No. 520,261.

The object of the present invention is to provide a two-part electric-lamp socket constructed to facilitate the ready removal or insertion of lamps used in connection with show-case reflectors and the like.

With this object in view my invention contemplates a lamp socket having two separate portions which are formed into a unitary structure by hinge members mechanically connecting said portions and electrically connecting the terminals of the one to the corresponding terminals of the other.

One of said portions, hereinafter referred to as the "end portion," is constructed and arranged to be affixed to the show-case reflector or other device with which the two-part socket is to be employed and has the supply circuit terminals secured thereto.

The other portion of my two-part socket is hereinafter styled the "lamp-receiving portion" and is relatively movable with respect to said end portion.

The lamp-receiving portion embodies a pair of terminal members electrically connected to the lamp-contacting terminals thereof, that is to say, the usual threaded shell into which the lamp is screwed and the spring contact member with which the button contact of the lamp co-operates when the lamp is screwed into said shell.

The two portions are hingedly connected by a pair of members, which may be resilient strips, and which serve the purpose not only of mechanically connecting said portions together for relative movement but also of connecting the terminals of the end portion to the corresponding terminals of the lamp-receiving portion, the latter terminals as aforesaid being electrically connected to the lamp-contacting terminals.

The drawing which accompanies and forms a part of this specification illustrates one embodiment of my invention which has given good results in practice; but it is to be understood that said drawing is merely illustrative and not restrictive.

In the drawing—

Figure 1 is a front elevation of a show-case reflector having a two-part electric-lamp socket which embodies my invention secured thereto for the purpose of illustrating one of the uses of said socket.

Fig. 2 is a transverse section taken on the line 2—2 of Fig. 1.

Fig. 3 is a longitudinal section taken on the line 3—3 of Fig. 2.

Fig. 4 is an elevation of my improved two-part socket as viewed from the rear, certain parts being shown in section; and

Fig. 5 is an elevation of one form of hinge member that may be employed for connecting the two portions of the socket.

In the particular drawing selected for more fully disclosing the principle of my invention, 10 represents a common form of show-case reflector within which the stationary end portion 11 of my two-part reflector is disposed and to which it is secured in the present instance by the screw 12.

As indicated in the drawing the end portion 11 may be a block of insulating material of any suitable kind and has a pair of conducting members 13, 14 disposed in grooves cut in the rearward or inner face thereof, said members being secured thereto by screws 15, 16 respectively.

The conducting members 13, 14 project beyond the inner end of the portion 11 and terminate in end portions 17, 18, respectively, which are bent at right angles to the horizontal parts of said conductors and are arranged in grooves in the forward end of the block 11.

The lamp-receiving portion 19 of the two-part socket is provided on its rearward end with a pair of conducting members 20, 21 connected electrically and mechanically to the respective lamp-contacting terminals of the socket by the screws 22, 23, as shown most clearly in Fig. 4, the conducting member 20 being connected with the spring clip which is contacted by the end button of the lamp and the conducting member 21 being connected to the socket shell with which the metallic base of the lamp makes contact when the lamp is screwed thereinto.

In the present instance the means employed for hingedly connecting the two portions of the socket mechanically and electrically are a pair of resilient strips of conducting material one of which is shown at 24 in Figs. 3 and 5,

said strips being secured respectively to the conducting members of the fixed end portion and the relatively movable lamp-receiving portion of the socket.

In the particular embodiment of the invention shown in the drawing, the ends of said resilient strips are eyeleted to the corresponding pairs of said conducting members, 13, 14 and 20, 21. Thus, the strip 24 is eyeleted to the down turned end 17 of the conducting member 13 of the fixed end portion 11 of the socket and to the conducting member 20 disposed in the rearward end of the lamp-receiving portion 19 as indicated at 25, 26 (Figs. 3 and 5). In like manner the other resilient strip indicated at 27 (Fig. 4) is eyeleted to the down turned end of the conducting member 14 of the end portion 11 and to the conducting member 21 of the lamp-receiving portion.

The pair of resilient strips therefore constitutes a hinge between the members of the two-part socket, mechanically connecting the same, and at the same time affording a means for electrically connecting the terminals of one to the corresponding terminals of the other.

In order to retain the relatively movable lamp-receiving portion 19 in closed or operative position a spring clip 28 may be employed, said clip being secured to the top wall of the reflector and arranged to spring into a shallow groove formed in the end of said lamp-receiving portion when the latter is closed against the stationary end portion, as shown in Fig. 1.

The lower wall of the reflector is provided with the usual channel 29 for the current-supply conductors which as indicated in Fig. 4 are connected to the conducting members 13, 14 of the stationary end portion 11 in any suitable manner. Being connected to a stationary member, said current-supply conductors are not subjected to physical movement when the lamp-receiving member is moved with respect to said stationary member.

It being desirable to protect the hinge members from exposure, the outer face of the end portion 11 is shown in the present instance as provided with a recess 30 at its forward end and the lamp-receiving member with a cooperating ledge 31 at its rearward end, so that at all times, whether the lamp-receiving portion is open as in Fig. 3 or closed as in Fig. 1 the hinge members will be protected from exposure. The said ledge and projection also serve the purpose of limiting the outward movement of the lamp-receiving portion with respect to the fixed end portion.

By means of the present invention the lamps may be more readily removed from and inserted into the socket and, as there is no physical movement of the current-supply conductors when the movable portion of my two-part socket is moved on its hinges, the danger from short circuits due to abrasion of insulation is prevented.

The said invention also obviates another difficulty heretofore encountered in the use of sockets swiveled to show-case reflectors and like devices or otherwise connected thereto for turning movement with reference to the same, namely, that on account of the repeated movement of said socket the current-supply conductors are either broken or become loosened from the socket terminals, because in all such cases so far as I am aware, the supply circuit terminals are connected, not to a stationary member such as the end portion 11 of my two-part socket but to the socket itself so that the movement of said socket necessarily results in movement of the supply conductors.

Having thus described an illustrative embodiment of my invention, without however limiting the same thereto, what I claim and desire to secure by Letters Patent is:

1. A two-part electric-lamp socket comprising a stationary end portion, supply-circuit terminals secured thereto, a lamp-receiving portion relatively movable with respect to said end portion and embodying lamp terminals, and a pair of resilient hinge members electrically and mechanically connecting the terminals of the said end portion to the corresponding terminals of said lamp-receiving portion.

2. A two-part electric-lamp socket comprising a stationary end portion, supply-circuit terminals secured thereto, a lamp-receiving portion relatively movable with respect to said end portion and embodying lamp terminals, a pair of hinge members electrically and mechanically connecting the terminals of the said end portion to the corresponding terminals of said lamp-receiving portion and means forming part of one of said portions for protecting said hinge members from exposure.

3. A two-part electric-lamp socket comprising a stationary end portion, a pair of conducting members secured to the inner face of said end portion and projecting beyond the forward end thereof, a lamp-receiving portion relatively movable with respect to said end portion, a pair of conducting members secured to the rearward end of said lamp-receiving portion and electrically connected, respectively, to the lamp terminals thereof and a pair of resilient strips of conducting material secured respectively to the corresponding conducting members of said end portion and lamp-receiving portion.

4. A two-part electric-lamp socket comprising a stationary end portion, a pair of conducting members secured to the inner face of said end portion and projecting beyond the forward end thereof, a lamp-receiving

portion relatively movable with respect to said end portion, a pair of conducting members secured to the rearward end of said lamp-receiving portion and electrically connected, respectively, to the lamp terminals thereof, and a pair of hinge members of conducting material secured respectively to the corresponding conducting members of said end portion and lamp-receiving portion.

In testimony whereof, I have hereunto subscribed my name this 4th day of March, 1931.

LEONARD ERIKSON.