R. H. VICKERS.

CIRCUIT CLOSER FOR INCANDESCENT ELECTRIC LAMP SOCKETS.

APPLICATION FILED MAY 27, 1912.

1,055,578.

Patented Mar. 11, 1913.

Fig. 1.

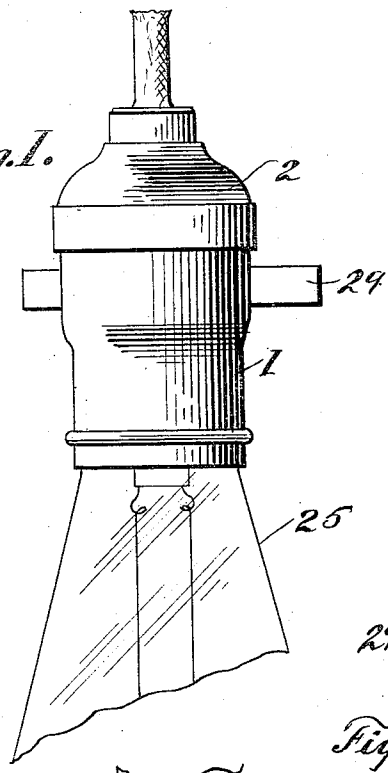


Fig. 2.

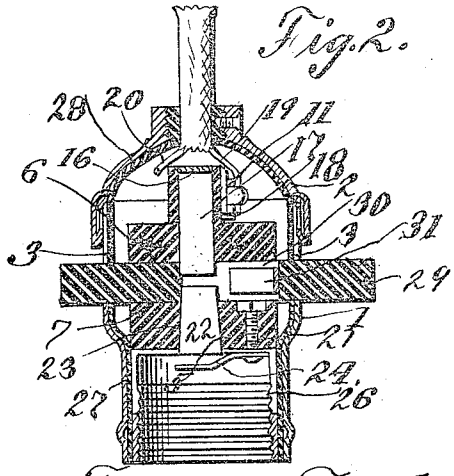


Fig 4

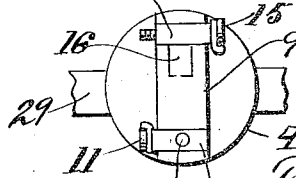


Fig. 5.

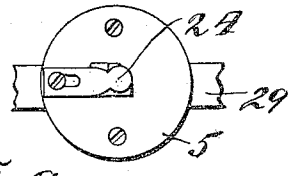


Fig 6

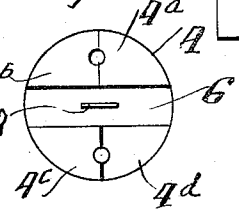


Fig 9

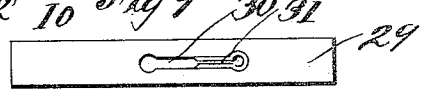


Fig. 3.

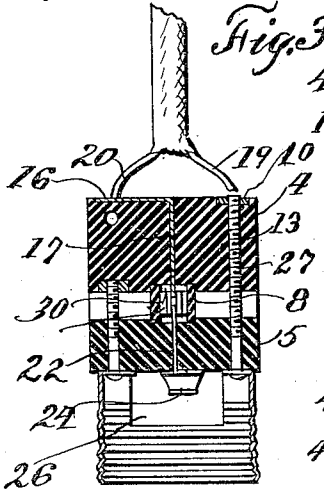


Fig. 8.

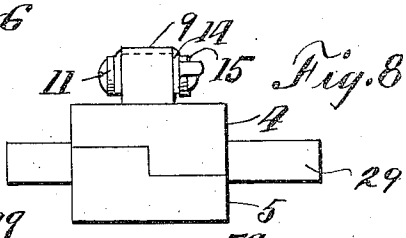


Fig 10.

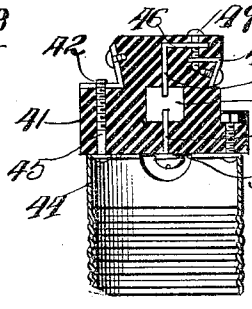
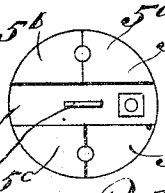


Fig. 7.



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UNITED STATES PATENT OFFICE.

ROY H. VICKERS, OF FAYETTEVILLE, ARKANSAS.

CIRCUIT-CLOSER FOR INCANDESCENT-ELECTRIC-LAMP SOCKETS.

1,055,578. Specification of Letters Patent. Patented Mar. 11, 1913.

Application filed May 27, 1912. Serial No. 699,999.

To all whom it may concern:

Be it known that I, ROY H. VICKERS, a citizen of the United States, residing at Fayetteville, in the county of Washington and State of Arkansas, have invented certain new and useful Improvements in Circuit-Closers for Incandescent-Electric-Lamp Sockets, of which the following is a specification.

My invention relates to circuit closers for the sockets of incandescent electric lamps and has for its object the provision of improved means for closing the circuit consisting of a laterally moving plunger provided with means for opening and closing the circuit in one of the terminals of the circuit.

My invention will be described in detail hereinafter and illustrated in the accompanying drawings, in which,

Figure 1 is a fragmentary view of an incandescent lamp mounted in a socket constructed in accordance with my invention; Fig. 2, a central longitudinal sectional view of the socket; Fig. 3, a similar view on a plane 90° removed from the plane of the section of Fig. 1; Fig. 4, a top plan view of the circuit plug; Fig. 5, a bottom plan view of the plug; Fig. 6, a plan view of the upper section of the plug; Fig. 7, a plan view of the lower section of the plug; Fig. 8, a side view in elevation of the plug and plunger in an assembled position; Fig. 9, a top plan view of the plunger; and Fig. 10, a view of a modified form of plug.

In the drawings similar reference characters will be used to designate corresponding parts throughout the several views.

My improved circuit closer is mounted in a socket consisting of a two-part casing indicated at 1 and 2 that is secured together in any suitable manner having the slots 3 therein arranged diametrically opposite one another for the purpose hereinafter described. The circuit closer comprises a block or plug consisting of two members 4 and 5. Each of said members is provided with a transverse groove indicated at 6 in the member 4, and 7 in the member 5, and the portions of said members on the two sides of the grooves are on different planes as indicated at 4^a and 4^b, 4^c and 4^d, and 5^a, 5^b, 5^c and 5^d, the portions 4^a and 4^b fitting the portions 5^b and 5^a, and the portions 4^c and 4^d fitting the portions 5^d and 5^c respectively, when the socket is assembled and providing a transverse opening 8 in said block or plug when so assembled.

The upper portion of the member 4 is provided with a reduced transverse projection 9 having on one of its ends a contact member comprising a plate 10 having a binding post 11 secured thereto and a threaded opening 12 therein that is in alinement with an opening 13 extending through the two portions of the block or plug 4 and 5. 14 indicates another contact plate mounted on the projection 9 and having a binding screw 15 secured thereto and a laterally extending tongue 16 with a downwardly extending portion on its outer end 17 that extends through a slot 18 in the member 4 and has its lower terminal extended into the opening 8.

The two terminals of the power wires are indicated at 19 and 20 and are adapted to be secured to the contact members 10 and 14 by means of the binding posts 11 and 15 respectively.

21 indicates a contact plate secured to the lower side of the block member 5 and having an upwardly extending tongue 22 that extends through a slot 23 in said block member 5 and has its free terminal in the opening 8.

24 indicates an integral spring tongue on the plate 21 that is adapted to close the circuit in one of the terminals of the lamp 25, the other terminal of the lamp being connected through the shell 26 and the securing screw 27 with the contact plate 10.

27 indicates insulating material between the shell 26 and the lower part of the casing 1 and 28 other insulation within the upper portion 2 of the casing.

The circuit closing mechanism comprises a bar 29 slidably mounted in the opening 8, and the slots 3 in the block or plug members 4 and 5 and the lower part of the casing 1 respectively, has a slot 30 therein in which is mounted a contact member consisting of a strip of metal 31 bent on itself and having its two leaves adapted to engage the terminals of the tongues 17 and 22 when the plunger is moved as in Fig. 2 from the position shown therein toward the left.

It will be understood that the members 4 and 5 of the plug or block are constructed of any non-conductor of electricity such as porcelain, vulcanized fiber, glass or the like, and the bar 29 is also constructed of similar material.

In use, it will be understood that when the device is in the position shown in Fig. 2, the lamp circuit will be opened. To close the circuit to the lamp, the bar 29 is moved from the position shown in Fig. 2 toward the left so that the tongues of the contact member 31 engage and inclose the ends of the tongues 17 and 22. The circuit will then be closed from the wire 19 through the contact post 15, the plate 14, tongue 16, the downwardly extending portion 17 of said tongue, the contact member 31, tongue 22, plate 21, spring tongue 24 through the lamp filament back through the casing of the lamp through the casing 26, screw 13, contact plate 10, binding post 11 and the wire 20.

In Fig. 10 is shown a modified form of plug or block that is constructed of a single piece of insulating material indicated at 41, the two contact members being indicated at 42 and 43 respectively. 44 indicates the shell to which the incandescent lamp is adapted to be secured and connected to the contact member 42 by means of the screw 45. The contact member 43 is connected to an angular plate 46 having the downwardly extending tongue 47 with its terminal extending into the transverse opening 48. Said contact members 43 and 46 are in circuit through the screw 49. 50 indicates a contact plate for one of the terminals of the lamp circuit having an upwardly extending tongue 51 that has its free terminal extended into the transverse openings 48 opposite to the terminals of the tongue 47.

The operation of the circuit closing mechanism for the form of plug shown in Fig. 10 is the same as that for the form shown in the remaining figures of the drawing and is considered not to be necessary to be illustrated and described.

Having thus described my invention what I claim is:—

1. In combination with the insulating block or plug in an electric lamp socket, said plug being formed with a transverse opening, a contact member adapted to be placed in circuit with a power wire, a tongue extending from said contact member and having its terminal in said transverse opening, another contact member mounted on said plug and having a tongue extending into said opening, a bar slidably mounted in the opening in the block and having a slot to receive said tongues, and means secured to said bar and mounted in the slot to electrically connect said tongues.

2. In combination with the insulating block or plug in an electric lamp socket, said plug being formed with a transverse opening, a contact member adapted to be placed in circuit with a power wire, a tongue extending from said contact member and having its terminal in said tranverse opening, another contact member mounted on said plug and having a tongue extending into said opening, a bar slidably mounted in the opening in the block and having a slot to receive said tongues, and a spring contact member mounted in said slot and adapted to engage said tongues to close the circuit therebetween.

3. In combination with the insulating block or plug in an electric lamp socket, a contact plate mounted on said block or plug, a binding post mounted on said plate, a tongue extending laterally from said plate, the terminal of said tongue extending downwardly, said plug being formed with a slot to receive the downwardly extending terminal of said tongue.

4. In combination with an insulating block or plug of an incandescent lamp socket having a transverse opening therein, a contact plate secured to the upper side of said plug, a laterally extending tongue on said plate, said plug being provided with a vertical slot extending from the upper surface thereof and intersecting the transverse opening aforesaid, the tongue aforesaid having a downwardly extending portion mounted in said slot and having its free portion extending into the opening aforesaid, a contact plate secured on the under side of said plug or block and having an integral spring-contact tongue, said plug or block having a slot extending from its lower side and intersecting said transverse opening, a tongue extending upwardly from the last mentioned contact plate and mounted in the last mentioned slot, the terminal of said tongue extending into the opening aforesaid, a bar slidably mounted in said opening and having a slot therein to receive the tongue terminals aforesaid, a contact member mounted in said slot consisting of a strip of metal bent on itself to form spring arms adapted to engage said tongues, another contact plate mounted on the upper side of said block or plug, a binding post on said contact plate, a socket shell on said block, a screw rod engaging said shell and the last mentioned contact plate, said shell being adapted to hold an incandescent lamp and having one of the terminals of its circuit in circuit with said shell, and the other terminal of the lamp circuit in circuit with the spring contact tongue on the plate secured to the under side of the block.

In testimony whereof I affix my signature in presence of two witnesses.

ROY H. VICKERS.

Witnesses:
W. H. MORTON,
JNO. CLARK.