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G. D. BRAYMAN ET AL

2,648,049

ELECTRIC LAMP SOCKET

Filed Jan. 5, 1951

Fig. 1

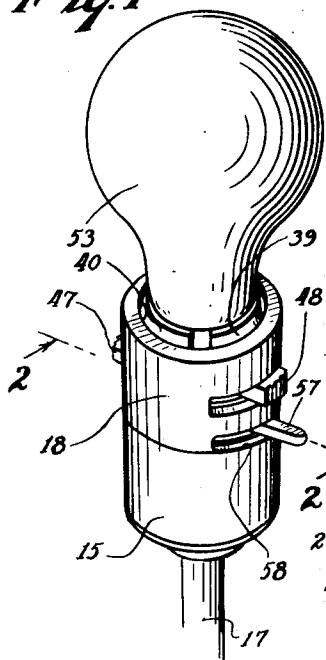


Fig. 2

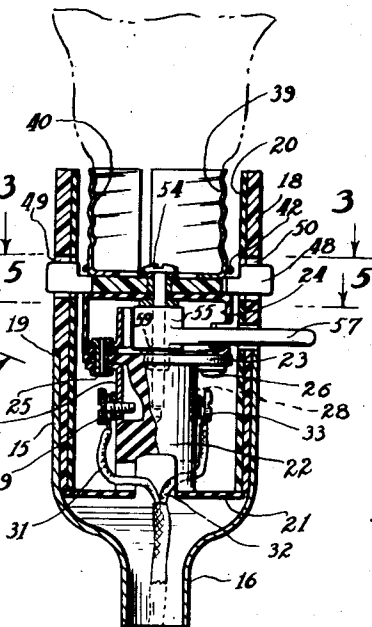


Fig. 7

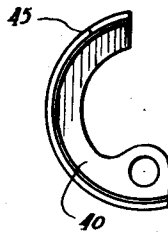


Fig. 8



Fig. 4

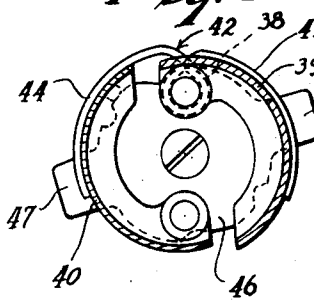


Fig. 3

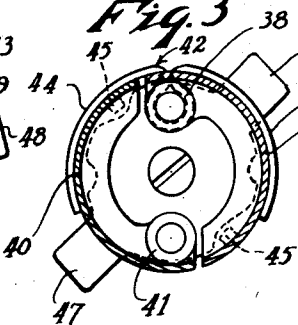


Fig. 9

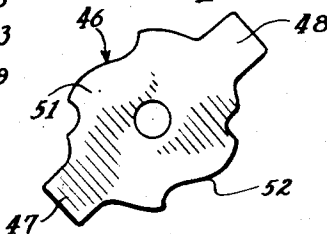


Fig. 6

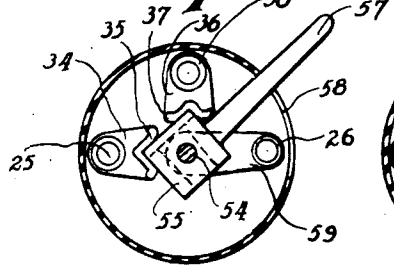


Fig. 5

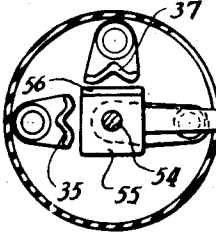


Fig. 10

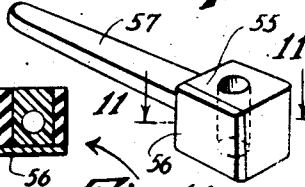


Fig. 11

INVENTOR.  
GEORGE D. BRAYMAN  
BY ERIC K. LOTTHAMMER  
L. S. Saulsbury

ATTORNEY

## UNITED STATES PATENT OFFICE

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## ELECTRIC LAMP SOCKET

George D. Brayman, Ashtabula, Ohio, and Eric K. Lotthammer, Jamaica, N. Y.; said Lotthammer assignor to said Brayman

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## 1 Claim. (Cl. 339—73)

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This invention relates to electric lamp sockets.

It is an object of the present invention to provide an electric lamp socket wherein the socket parts are separable from one another to receive the lamp bulb and thereby to eliminate the necessity of having to screw the lamp bulb into place within the socket.

It is another object of the invention to provide in an electric lamp bulb socket having separable socket element parts, a switch arrangement having terminals leading to one of the socket elements and a central terminal post about which an operating handle element is pivoted, leading from the central terminal of the lamp bulb and a connector strip leading from the central member.

Other objects of the invention are to provide an electrical lamp socket having separable socket parts to eliminate the necessity of having to screw the bulb into place, and with a switch arrangement, which is of simple construction, inexpensive to manufacture, has a minimum number of parts, easy to operate, compact, well insulated and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

Fig. 1 is a perspective view of the electric lamp socket embodying the features of the present invention with the bulb in place therein.

Fig. 2 is an enlarged vertical sectional view of the electric lamp socket and the view being taken on line 2—2 of Fig. 1.

Fig. 3 is a transverse sectional view of the socket with the socket parts closed upon each other.

Fig. 4 is a similar transverse sectional view with the socket parts expanded to release the lamp bulb.

Fig. 5 is a transverse sectional view taken on line 5—5 of Fig. 2, and looking upon the switch parts with the parts turned to the open position.

Fig. 6 is a similar transverse sectional view with the switch part turned to bridge the switch terminals.

Fig. 7 is a top plan view of one of the socket elements.

Fig. 8 is a side elevational view of one of the socket elements.

Fig. 9 is a plan view of the operating cam for the socket elements.

Fig. 10 is a perspective view of the movable switch member.

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Fig. 11 is a transverse sectional view taken on line 11—11 of Fig. 10.

Referring now to the figures, 15 represents a metal sleeve casing having a bottom reduced portion 16 through which a wire cable 17 may be extended. Fitted within the sleeve casing 15 is a plastic casing 18 shouldered at 19 to rest upon the top edge of the sleeve casing 15. A flexible insulating sleeve 20 is fitted within the plastic casing 18 and extends downwardly with the plastic casing to rest together on a bottom transversely extending insulating piece 21. The flexible insulating sleeve 20 is adjustable within the plastic casing but the plastic casing 18 is held against turning movement by its friction-tight fit therewith.

A central plug 22 is disposed within the casing parts and rested upon the piece 21. This central body supports the switch parts. This central body has a top flange 23 to the top of which there is secured a switch box 24. This switch box is secured by means of grommet elements 25 and 26 which respectively hold terminal pieces 27 and 28 to the under side of the flange 23. A connecting screw 29 connects wire 31 with the terminal piece 27. A wire 32 is connected to terminal piece 27. A wire 32 is connected to the terminal piece 28 by screw 33.

The grommet 25 extends through a terminal element 34 disposed within the switch box 24 and secures the same in place within the box. This switch contact has an upstanding V-shaped contact portion 35. At an angle of ninety degrees from the contact 34 is a second contact 36 having a V-shaped depending contact portion 37. This contact 36 is connected by a grommet 38 to the top of the switch box 24. This same grommet 38 extends upwardly to pivotally support a socket part 39. An outer socket part 40 is pivotally connected to the top of the box by a grommet 41 disposed on the switch box 24 at a diametrically opposite location, as shown in Figs. 3 and 4. A spring 42 is carried on the grommet 38 and has portions 43 and 44 respectively extending about the socket parts 39 and 40 to keep the same closed upon one another, as shown in Fig. 3. Any outward separation of the socket parts is effected against the action of spring 42. Each of these socket parts has a depending lug 45 which depends from the bottom thereof and is engaged by a double cam 46 having handles 47 and 48 diametrically disposed from one another and extending respectively through elongated slots 49 and 50 disposed respectively in the opposite sides of the plastic casing 18. The cam 46 has two cam engaging edges 51 and 52 over which

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the projections 45 of the respective socket parts 39 and 40 extend.

The socket parts 39 and 40 have thread formations therein for receiving the thread formations of lamp bulb 53. The central terminal of the lamp bulb engages with a central electrode 54 which is threaded into the plug body 22. Within the switch box 24 is a movable switch element 55 of square section and of insulating material. On one face of the movable switch member 55 is a contact plate 56 adapted to extend when the movable switch member is moved to the closed position, between the upstanding V-shaped contact portions 35 and 37 of the respective contact terminals 34 and 36. A handle 57 extends outwardly through an elongated slot 58 in the plastic casing 18 whereby to adjust the movable switch member 55 between open and closed positions, as shown in Figs. 5 and 6.

The central electrode 54 has a conductor 59 connected to it and this conductor extends laterally over the flange 23 of the body 22 and is connected through grommet 26 with the terminal 28.

The electric current is accordingly passed through the lamp bulb upon the movable switch member 55 being turned to the position shown in Fig. 6 with the contact plate 56 extending between the contact portions 35 and 37. Since the contact 36 is connected with the socket part 39 through the grommet 38 current will be extended to the lamp bulb. From the lamp bulb center terminal, the current will flow to the central electrode 54, conductor 59 and laterally through grommet 26 and terminal 28 and through screw 22 to wire 32.

When it is desired to release the lamp bulb for the purpose of replacing the same with another, the cam 46 is turned to spread the socket parts 39 and 40 from one another against the action of spring 42 in the manner shown in Fig. 4. This is effected through the engagement of the cam edges 51 and 52 with the respective depending projections 45 of the socket parts 39 and 40. By the turning movement of the movable switch member with its handle 57, the lamp bulb can be turned on or off.

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While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claim.

What is claimed is:

An electric lamp holder comprising an outer casing structure, a central body mounted within said outer casing structure, said central body having a radially extending top flange, an insulating switch box mounted on said top flange, grommet means extending through said insulating switch box and said flange, a terminal connected to said grommet below the flange and a terminal connected to said grommet above the flange and extending upwardly within the switch box, a central electrode extending from said central structure and through said switch box, a connector engaging said central electrode and extending laterally within the switch box, a grommet securing said conductor to the flange and a depending terminal extending from said grommet beneath the flange of the central body, socket parts respectively pivoted to said switch box adapted to be separated to receive and retain a lamp bulb, spring means urging said socket parts toward one another, a contact connected to the top of said switch box and depending thereinto, and a cam plate supported on the top of said switch box and engageable with said socket elements to separate the same against the action of the spring means.

GEORGE D. BRAYMAN.  
ERIC K. LOTTHAMMER.

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