Sept. 11, 1928. 1,684,268

D. HAYS

INCANDESCENT LAMP SOCKET

Filed Nov. 3, 1924

Fig. 1

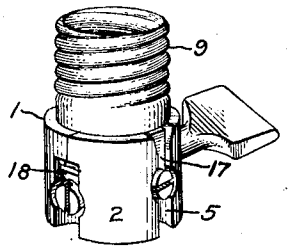


Fig. 2

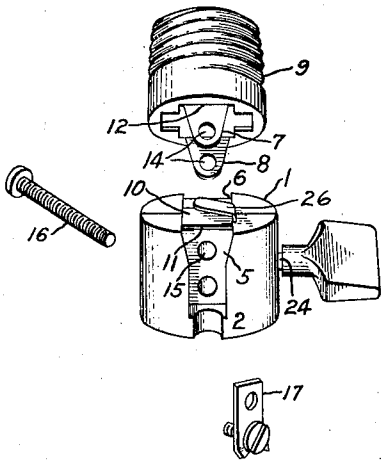


Fig. 3

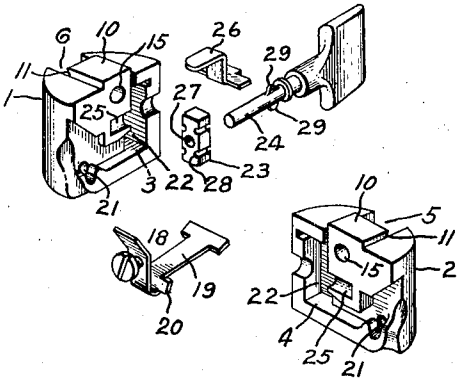


Fig. 4

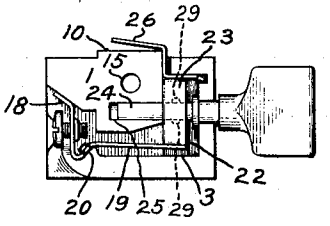


Fig. 5.

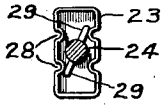
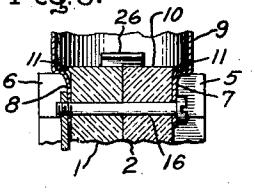


Fig. 6.



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UNITED STATES PATENT OFFICE.

DAVID HAYS, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

INCANDESCENT-LAMP SOCKET.

Application filed November 3, 1924. Serial No. 747,405.

The present invention relates to incandescent electric lighting and more especially to lamp sockets whereby an incandescent lamp may be mechanically supported and electrically conected in circuit.

Throughout the evolution of the present day lamp socket, the tendency has been, whenever a defect was to be cured therein, either to add to the number of parts employed or to add to the complexity of the various parts, and as a consequence it is little less than a Chinese puzzle of many complex parts lacking in hardiness and of high manfacturing cost.

The object of my invention is to provide an improved lamp socket which, while affording maximum functional efficiency, shall be composed of a minimum number of parts of simple and rugged construction and of low manufacturing cost.

One embodiment of my invention is shown in the accompanying drawing in which Fig. 1 is a perspective view of the functional part of an incandescent key socket with the exterior enclosing shell or casing omitted; Fig. 2 is a perspective view of the socket with certain parts shown disconnected from the base; Fig. 3 is a perspective view of the separate members of the base and the various parts normally mounted therein; Fig. 4 is an inner side elevation of a base member with the operating members in assembled relation, and Figs. 5 and 6 show details of construction.

The base is composed of two similar members 1 and 2 of moulded porcelain which, upon being brought into assembled relation, form a square ended cylinder divided on a plane through the axis.

The meeting surfaces of the base members are provided with recesses 3 and 4, as shown in Figs. 3 and 4, to provide an insulative receptacle for the switch mechanism and its connections. The external cylindrical wall is provided with opposite notches 5 and 6 for the reception of attachment ears 7 and 8 struck downwardly from the end wall of the screw shell contact 9, while a rectangular boss 10 is provided on the upper end with lips 11 overhanging the upper ends of the notches 5 and 6.

The screw shell contact 9 is adapted to seat upon the upper end of the base closely about the boss 10, while the ears 7 and 8 enter the notches 5 and 6 and the right angle shoulders 12 at their juncture with the end wall 13 of the shell engage beneath the lips 11. The lower ends of the ears are provided with apertures 14 adapted to align with a transverse aperture 15 in the base. A single screw 16 passes through the apertures 14 and 15 and engages a combined nut and binding post 17 to thereby serve the double function of holding the base members 1 and 2 together and the screw shell and its binding post in fixed assembled position thereon.

The binding post 18 for the opposite side of the circuit is carried at the outer end of a bent phosphor bronze spring 19 adapted to bear against a wall of the recesses 3 and 4 of the base and having pivotal side extensions 20 adapted to enter cavities 21 in the base members 1 and 2, while the free end of the spring is provided with a T head freely movable up and down in a chamber 22 formed in base members 1 and 2 and adapted to bear upon a switch block 23 carried by the key shaft 24 journalled in grooves 25 formed in the meeting surfaces of the base members. The switch block 23 is also adapted to engage the T end of a sheet metal center contact 26 bent Z shape extending to the outside of the base and overlying at its outer end the rectangular boss 10. The switch block 23 is struck up from sheet metal into the shape of an oblong box with a central aperture 27 and inwardly indented ribs 28 in the opposite sides adapted to form engagement points for the feather lugs 29 of the key shaft 24 when the latter is threaded through the aperture 27 and into normal operative relation therewith.

It is to be noted that each of the several elements of the switch mechanism is a plain sheet metal punching, assembled by mere insertion in recesses in the base members, and that the latter are rigidly fastened together and thereby permanently anchoring the switch elements therein by the single screw 16 which also serves to anchor the screw shell to the base and to electrically connect it to its binding post 17.

While I have shown and described the best embodiment of the invention known to me, I do not desire to be restricted thereto.

What I claim as new and desire to secure by Letters Patent of the United States, is:—

1. A lamp socket comprising an insulating base having a transverse aperture therein and shouldered lips adjacent said aper-

ture, a screw shell contact having holding ears at one end thereof extending over and beneath said lips and engaging opposite sides of said base, a binding post for said shell contact, and a screw passing through said base, said ears and said binding post and serving to retain them in fixed assembled relation.

2. A lamp socket comprising an insulating base having a transverse aperture therein, a cupped screw shell contact with an end wall seated on said base and having ears struck from said end wall and extending symmetrically over opposite sides of said base, a binding post for said shell contact, and a screw passing through said base, said ears and said binding post and serving to retain said parts in fixed assembled relation.

3. A lamp socket comprising a longitudinally divided insulating base, a switch mechanism assembled therein, a screw shell contact having holding ears engaging opposite sides of said base, binding posts for said screw shell and said switch mechanism respectively, and a fastening screw passing transversely through the base members and said ears and serving to retain said parts in fixed assembled relation and electrically to connect said screw shell and its binding post.

4. A lamp socket comprising a longitudinally divided base having an enclosed chamber therein, a spring contact lever fulcrumed in said chamber and provided with a binding post, a switch key and a center contact supported by the walls of said chamber, a rotary switch block adapted to be actuated by said key and electrically connect and disconnect said contact lever and said center contact, a screw shell contact mounted on one end of said base and having holding ears engaging opposite sides of said base, a binding post for said screw shell contact, and a fastening screw passing transversely through both members of the base, said holding ears and electrically connecting said screw shell contact and its binding post.

In witness whereof, I have hereunto set my hand this 29th day of October, 1924.

DAVID HAYS.