C. J. KLEIN.

LAMP SOCKET AND THE LIKE.

APPLICATION FILED OCT. 28, 1913.

1,150,434. Patented Aug. 17, 1915.

Fig. 1.

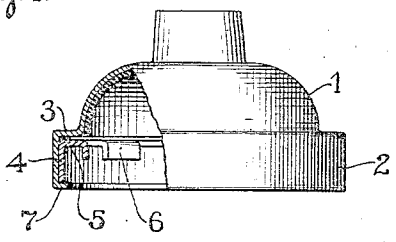


Fig. 2.

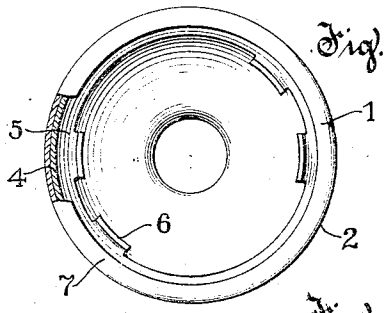


Fig. 3.

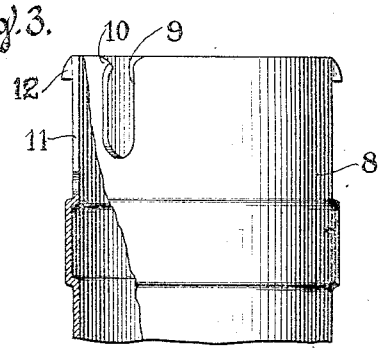


Fig. 4.

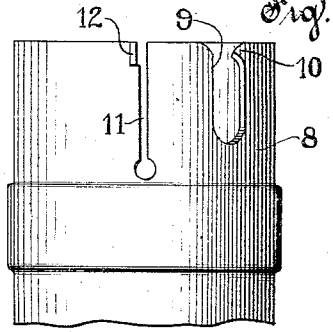


Fig. 5.

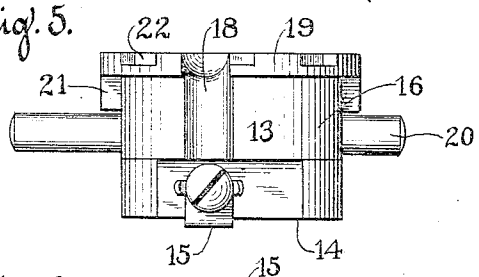


Fig. 7.

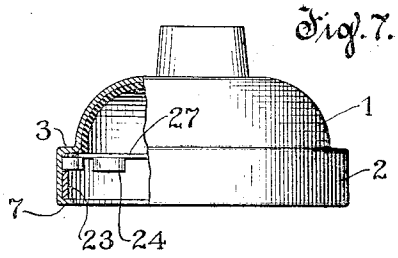


Fig. 6.

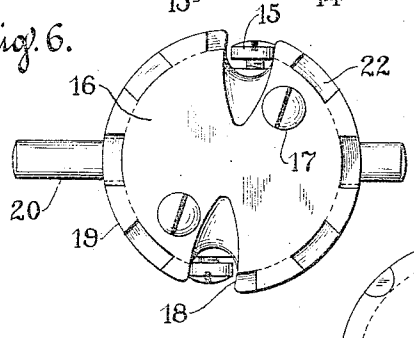


Fig. 8.

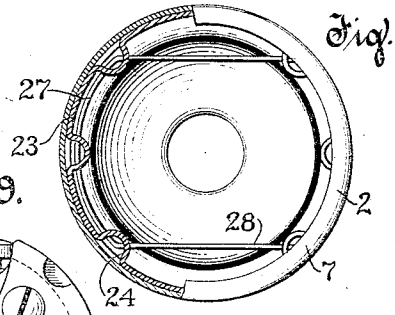
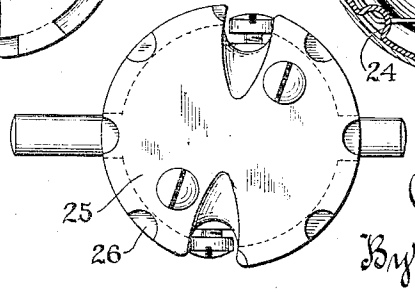


Fig. 9.



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Attorney

UNITED STATES PATENT OFFICE.

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LAMP-SOCKET AND THE LIKE.

1,150,434. Specification of Letters Patent. Patented Aug. 17, 1915.

Application filed October 28, 1913. Serial No. 797,869.

To all whom it may concern:

Be it known that I, CHARLES J. KLEIN, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Lamp-Sockets and the like, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

This invention relates to incandescent lamp sockets, pendent switches and the like.

One of the objects of the invention is to provide an improved insulating base for the current carrying parts of a switch mechanism or similar device which is adapted to co-act with the two parts of an inclosing casing to lock the same against relative rotation.

Certain further objects will be pointed out hereinafter.

In order to fully and clearly disclose the invention I have illustrated two of the various possible modifications thereof in the accompanying drawing.

Figure 1 is a side view of the cap partially in section; Fig. 2 is a bottom view of the same with a portion of the flange broken away; Fig. 3 is a side view of the shell showing a section of one locking lug; Fig. 4 is an elevation at right angles to Fig. 3; Fig. 5 is a side view of the insulating base; Fig. 6 is a top view of the same; Fig. 7 is a side view of a modified form of cap partially in section; Fig. 8 is a bottom view of the same, with a portion of the flange broken away; and, Fig. 9 is a top view of the insulating base for use with the modified cap of Figs. 7 and 8.

In the preferred form of device shown in Figs. 1 to 6, the cap 1 has an enlarged rim 2 merging into the cap body at the shoulder 3. Within the rim 2 is an annular strip 4 having a right angled flange 5 at its upper edge with depending tongues or lugs 6. The flange 5 lies adjacent the shoulder 3 of the cap and the strip 4 is clamped in place by inturning the edge of the cap to form an annular flat ledge 7.

The shell 8 is provided on opposite sides with slots 9 adapted to accommodate the reciprocating push bar or other operating member of an inclosed switch mechanism. The upper edge of the shell at the sides of the slots 9 is inturned slightly, as at 10. The shell is also provided with slots 11 on opposite sides and spaced from the key slots 9 to increase the resiliency of the shell. One wall of each of the slots 11 is slitted transversely near the edge of the shell and the metal above the slit forced outwardly and beveled to form catches 12 having abrupt lower shoulders and inclined upper edges.

The insulating base 13 carries the switch mechanism and current carrying parts of the socket and is adapted to be housed within the casing. This base comprises a lower section 14 having terminals 15 on opposite sides thereof, and an upper section 16. These two sections are secured together by suitable means, such as the usual screws 17. The upper section 16 of the base is substantially cylindrical and is provided with recessed channels 18 on opposite sides disposed above the terminals 15 for the reception of line wires leading to the latter. The upper end of the section 16 is enlarged to form a circumferential flange 19 adapted to rest upon the upper edge of the shell 8 when placed therein. A reciprocating push bar 20 of the switch mechanism extends through the section 16 of the base. Rectangular projections 21 are provided on the base directly above the push bar 20 and below the flange 19. These projections 21 and the ends of the operating push bar are adapted to fit within the slots 9 of the shell. When in this position the inturned corners 10 of the shell edge extend transversely at the sides of the base projections 21 to hold the base and its associated parts against turning within the shell. The upper face of the insulating base is provided around its edge with a series of rectangular recesses 22 adapted to receive the depending lugs 6 in the cap.

When the insulating base 13 is inserted in the shell 8, these two members may be telescopically pushed into engagement with the cap. The catches 12 on the shell thereupon co-act with the flat surface of the marginal ledge 7 of the cap to lock the cap and shell against axial separation. At the same time the fixed lugs 6 in the cap will co-act with the sides of the recesses 22 in the upper face of the insulating base to lock the cap and base against relative rotary movement. The base 13 thus locks the two parts of the casing against relative rotation. When the parts of the casing are united, also, the

flange 19 around the insulating base fits snugly between the edge of the shell 8 and the shoulder 3 of the cap to prevent further telescopic attachment and to insure a rigid connection between the parts.

Separation of the cap and shell is readily obtained by compressing the shell beneath the catches 12 to disengage the latter from the cap flange 7. It is to be noted that the shell and cap may be attached in any one of a plurality of rotary positions since the lugs 6 of the cap will co-act with any of the recesses 22 of the base.

The modified structure shown in Figs. 7 to 9 inclusive is similar in general plan and operation to that already described. The cap 1 is provided with an enlarged rim 2 and flange 7. Within the rim is an annular strip 23 having a plurality of lugs 24 formed by pressing inwardly the metal between two parallel transverse slits. The insulating base 25 is substantially identical with the base 13 of the preferred form, but in this modification the upper face has a series of curved recesses 26 adapted to receive the curved lugs 24 of the cap. The shell designed for use with the modified cap and insulating base 25 is the same as that shown in Figs. 3 and 4.

In the cap 1, Figs. 7 and 8, I have also shown a retaining spring 27 for releasably holding the insulating lining in place.

This spring is substantially similar to that described and claimed in my co-pending application, filed April 8, 1912, Serial No. 689,289 on which Patent No. 1,121,374 was issued to me on Dec. 15, 1914. Briefly described, the spring 27 comprises a portion lying adjacent the periphery of the cap and clamped in place between the lugs 24 and the shoulder 3 on the cap thereabove and portions 28 extending transversely of the cap. The portions 28 are resilient and yieldable toward the wall of the cap to permit the insulating lining to be inserted or removed.

What I claim as new and desire to secure by Letters Patent is:

1. In combination, a two-part casing for electrical devices, the parts thereof having independent shoulders, and an insulating base within said casing having integral shoulders co-acting with said shoulders on said casing parts to lock said base and said casing parts against relative rotation.

2. In combination, a two-part casing, the parts thereof being provided with interiorly projecting shoulders and a base therein having shoulders co-acting with said shoulders on said casing parts to lock all of said parts in any one of a plurality of rotary positions against relative rotation.

3. In combination, a two-part casing for electrical devices, the parts thereof having means interlocking to prevent relative separation when united in any rotary relation and having independent internal shoulders, and a base entirely within said casing having a plurality of spaced shoulders co-acting with said shoulders on said casing parts when the latter are united in any one of a plurality of rotary positions to lock said base and said casing parts against relative rotation.

4. In combination, a cap and shell adapted to telescopically unite, interiorly projecting lugs within said cap, a base within said shell having shoulders adapted to co-act with said lugs in said cap to lock said cap against relative rotation, and a retaining member within said cap for supporting an insulating lining therein, said retaining member being supported in said cap by said lugs.

5. In combination, a cap having an inturned marginal portion, an annular member secured within said cap above said inturned portion, and a plurality of lugs on said member; a shell having outwardly extending shoulders to engage said inturned portion of said cap to lock said cap and shell against axial separation, and interiorly extending shoulders; and a base inclosed within said cap and shell having a plurality of shoulders, certain of which co-act with said lugs in said cap and certain of which co-act with said interiorly extending shoulders on said shell to lock said cap and shell against relative rotation.

6. In a lamp socket or similar device, in combination, a cap and shell adapted to telescopically unite and having interengaging catches to lock the same against separation, said cap having interiorly projecting lugs and said shell having inturned portions forming radial shoulders, and an insulating base within said shell having projections adapted to co-act with said lugs and said shoulders to lock said cap and shell against rotary movement.

7. In a lamp socket or similar device, in combination, a cap having a flanged rim and an annular strip within said rim, said strip having a plurality of projecting lugs, a resilient shell having a key slot and a second slot spaced therefrom, said shell being turned inwardly at the side of one of said slots to form shoulders, and a base having shoulders to co-act with the shoulders of said shell and the lugs of said strip to lock said cap and shell against relative rotation.

8. In a lamp socket or similar device, in combination, a cap having an annular shoulder spaced from its margin and interiorly extending lugs, a shell adapted to fit within the margin of said cap and having interiorly extending shoulders, and an insulating base having a flange adjacent one end and a plurality of shoulders, said flange being adapted to engage the edge of said

shell and the shoulder of said cap, and said shoulders on said base co-acting with the lugs of said cap and the shoulders of said shell to lock said cap and shell against relative rotation.

9. In combination, an insulating base with a switch mechanism thereon having a projecting operating member, a sectional metallic casing to inclose and support said base, the sections of said casing telescoping together and automatically interlocking against separation in substantially any rotary relation, and said base and said casing sections having means independent of said switch operating member for locking each thereof against rotation relative to the others.

10. In combination, an insulating base carrying a switch mechanism having a reciprocable operating member, a sectional casing to inclose and support said base and having opposite recesses in its walls to accommodate said switch operating member, the sections of said casing telescoping together and having means automatically interlocking in substantially any telescoped rotary relation to restrain the parts against separation, and said base and said casing sections having means independent of said first mentioned means and of said switch operating member for locking each thereof against rotation relative to the others.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

CHARLES J. KLEIN.

Witnesses:
LEONARD F. WATSON,
F. H. HUBBARD.