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J. HOHL

LAMP SOCKET

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Fig. 1.

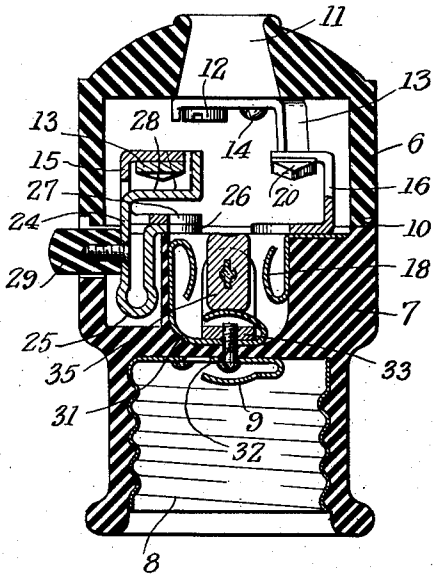


Fig. 3.

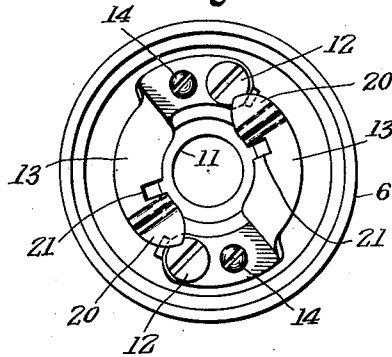


Fig. 2.

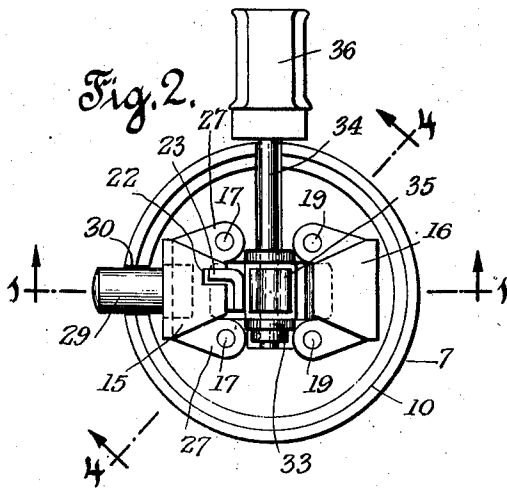


Fig. 4.

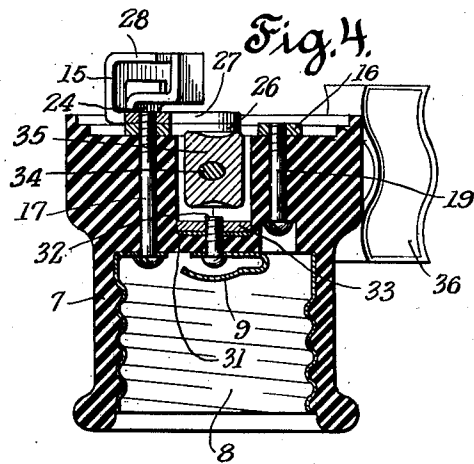
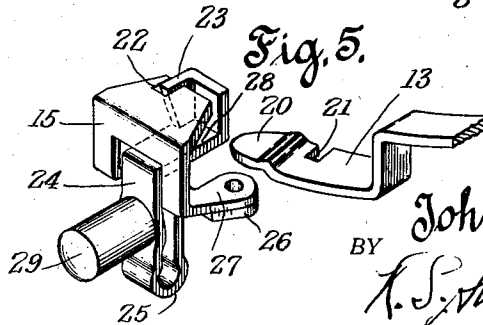


Fig. 5.



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LAMP SOCKET.

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This invention relates to electric lamp sockets of the type composed of separable body and cap portions, and has for its object to provide simple positive means for locking the body and cap portions in assembled relation while permitting speedy disassembly when desired.

Fig. 1 is a longitudinal section on the line 1—1 of Fig. 2 showing the parts in assembled relation.

Fig. 2 is a plan view of the body portion, the cap being removed.

Fig. 3 is a view showing the interior of the cap member.

Fig. 4 is a section of the body portion only taken on the line 4—4 of Fig. 2, and

Fig. 5 is a perspective view of the locking mechanism.

The socket consists in general of a cap 6 and a separate body 7 of suitable insulating material. The cap 6 has the usual central aperture 11 to accommodate the end of a lamp cord, the individual conductors of which may be secured by binding screws 12 to two oppositely disposed hook shaped terminals 13 which are held in place within the cap as by screws 14.

Molded within the neck portion of the body is a metal screw shell or contact 8 adapted to receive a lamp or attachment plug, while a central contact 9 is also provided as is usual. The meeting edges of the cap and body are grooved as at 10 to provide mutually engaging shoulders which prevent relative translational movement when the parts are assembled. On opposite sides of the face of the body are two yoke shaped contacts 15 and 16. Yoke 15 is held in place and connected to screw shell 8 by two screws 17 (Fig. 4) while yoke 16 is held against a spring contact 18 set in a shallow recess on the face of the body by two screws 19 whose heads are countersunk so as to be insulated from the lamp contacts. The relative position of the yokes 15 and 16 on the body and hooks 13 on the cap is such as to permit the parts to be assembled by bringing them together with the free portions of the yokes just to the left of the downwardly bent toes 20 of hooks 13. A clockwise turn of the body relative to the cap will then cause each hook to ride under and engage the lower surface of the free

portion of its adjacent yoke, and the parts will be firmly held in assembled relation.

In order that the cap and body may not be accidentally disassembled, I notch the inner edge of each hook 13 as at 21, and also notch the inner edge of the free portion of yoke 15 as at 22. The notches on yoke and hook are arranged to be in registry when the parts are assembled, regardless of which of the two hooks 13 yoke 15 engages. To lock the yoke and hook in engagement I provide a catch 23 which is normally held within the notch 22 of yoke 15 by a spring member 24. This spring may be of any suitable type but most desirably comprises a bow portion 25 terminating in two feet 26. These feet are of the same shape as the feet 27 of yoke 15, and each has a hole registering with the tapped hole in the corresponding foot 27 which accommodates one of the fastening screws 17. The face of the body of the socket is recessed near one edge to receive the bow portion 25 of spring 24. The back or web portion of yoke 15 is cut away (see Fig. 5) to permit the passage therethrough of an arm 28 extending inwardly from the outer end of bow 25. Catch 23 is most conveniently formed integral with its carrying spring 24 by turning upwardly the inner end of arm 28 thereof, and then bending outwardly one edge of the upturned portion, as shown in Fig. 5. The spring and catch are secured to the body beneath the foot of yoke 15 by the same screws 17 which hold yoke 15.

The ends 20 of hooks 13 are rounded, so that as the body is rotated relative to the cap in assembling the parts the inner edge of the hook end 20 will engage the outer vertical edge of catch 23 to gradually force the catch inward until hook notch 21 registers with yoke notch 22 at which time spring 24 snaps the catch into the notches and locks the parts against further rotation. In order to permit removal of the body from the cap after the parts have been once assembled, I fasten a button 29 to the outer arm of bow 25 of spring 24, and provide a slot 30 in the body through which the button extends. Thus by pressure on button 29 the catch may be moved inwardly out of the notches 21 and 22 in the hook and yoke, and the body may then be separated from

the cap by counter-clockwise rotation relative thereto.

From the foregoing it is obvious that screw shell 8 is in electrical contact with one conductor of the lamp cord when the parts are assembled, the circuit being traced through a binding screw 12, hook 13, yoke 15 and screws 17. Yoke 16 is similarly connected to the other conductor of the lamp cord. 10 Center lamp contact 9 may be permanently connected to yoke 16, but preferably I interpose a switch of any suitable type between these parts. In the present embodiment I provide a cup shaped depression in 15 the face of the socket body to house the switch, which is of the simple snap type. Along the bottom of the depression and extending up one side thereof is a double spring contact 31 (Fig. 1) which is held 20 in place and connected to central contact 9 by a screw 32. To the same screw I secure a U-shaped bracket 33. Journalled in said bracket is a stem 34 carrying at its inner end a rectangular conducting block 35 and 25 at its outer end a key 36, both secured for rotation with said stem. When the switch is in its off position (shown in the drawings) the concave end of block 35 rests on the lower bow of spring contact 31, whose pressure is 30 sufficient to prevent rattling. To turn on the switch, the key is turned through a right angle, at which time block 35 connects the upper bow of spring contact 31 to spring 18 and thus completes the connection between 35 center lamp contact 9 and one conductor of the lamp cord. In this position also the pressure of the contact springs on block 35 prevents rattling of the switch.

My invention thus provides a two part 40 lamp socket of insulating material to which all the conducting parts are secured, and which may be easily and quickly assembled, the cap may be quickly removed from the body to connect a lamp cord or for any other 45 purpose, but when secured to the body is positively locked against accidental separation therefrom. While I have described one specific embodiment of the invention in detail, it is to be understood that this is 50 merely for the sake of clearness and not to limit the scope of the invention as defined by the appended claims.

I claim:

1. A lamp socket comprising a cap having 55 two circumferentially extending hook-like conducting members, a body having cooperating hook-like conducting members adapted to be assembled with the cap by a longitudinal and rotary movement of the 60 body with respect to the cap, a screw socket electrically connected to one of the latter mentioned hooklike members, a center lamp contact, a double spring contact having one part electrically connected to said center 65 lamp contact, a contact disposed opposite

another part of said double spring contact and connected to the other of said latter mentioned hook-like members and a rotatable switch member coacting with said double spring contact and said opposite contact.

2. In a lamp socket the combination with 70 an insulating cap containing two symmetrically disposed notched metallic hooks, of an insulating body having two metallic yokes adapted to be rotated into engagement with 75 said hooks, one of said yokes having a notch in registry with the hook notch when said parts are in engagement, a catch arranged to enter said notches to lock the parts in engagement, a spring to press the catch into 80 the notches, and a button extending without the socket to move the catch out of the notches to permit disengagement of the parts.

3. In a lamp socket, the combination with 85 an insulating cap containing two oppositely disposed notched conducting hooks, of an insulating body having at one end a screw contact and a central contact to cooperate 90 with a lamp and at the opposite end being cupped out to receive spring contacts and a switch member, a yoke shaped contact secured to the face of the body and connected to one of said lamp contacts, the free portion 95 of said yoke being adapted to interlock with either of said cap hooks to fasten together the body and the cap and having a notch to register with the hook notch when interlocked with the hook, a spring secured in a 100 recess on the face of the body beneath said yoke contact, a catch pressed by the spring into said yoke and hook notches to prevent disengagement of the yoke and hook, and a button operable from the exterior of the 105 socket to release said catch.

4. An electric socket comprising a body 110 portion and a cap portion having pairs of interlocking members, one pair extending circumferentially and shiftable into effective engagement after the cap portion has been 115 placed on the body portion and rotated, a bolt slidable relative to said body engaging two of said interlocking members to lock them against relative shifting to ineffective position, to permit separation of the cap 120 portion and body portion, and manually operable means for shifting said bolt.

5. An electric socket comprising a body 125 portion and a cap portion having pairs of interlocking members, one pair extending circumferentially and shiftable into effective engagement after the cap portion has been 130 placed on the body portion and rotated, a bolt carried by the body and slidable relative to said members engaging two of said interlocking members to lock them against relative shifting to ineffective position, to permit separation of the cap portion and body portion, and manually operable means for shifting said bolt.

6. An electric socket comprising a body portion and a cap portion having pairs of interlocking members, one pair extending circumferentially and shiftable into effective engagement after the cap portion has been placed on the body portion and rotated, a spring pressed bolt slidable relative to said body engaging two of said interlocking members to lock them against relative shifting to ineffective position, to permit separation of the cap portion, and body portion, and manually operable means for shifting said bolt. 10

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