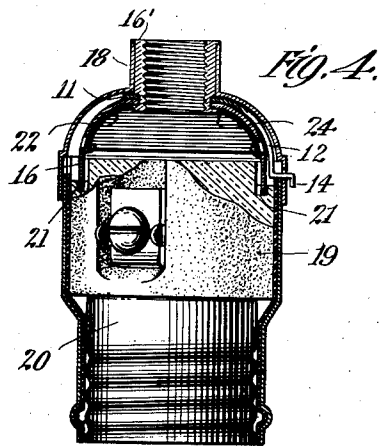
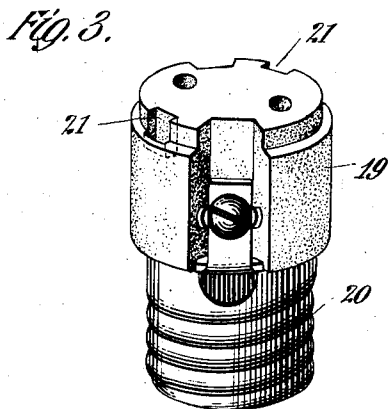
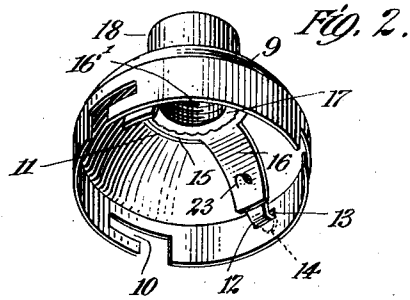
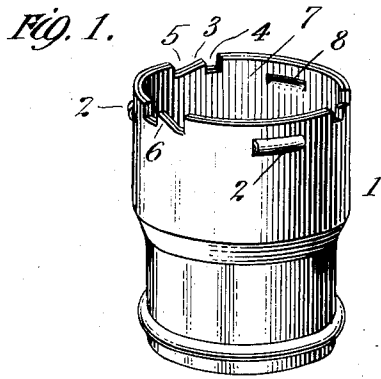


J. S. STEWART.
ELECTRIC LAMP SOCKET.
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976,519.

Patented Nov. 22, 1910.



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UNITED STATES PATENT OFFICE.

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ELECTRIC-LAMP SOCKET.

976,519.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES S. STEWART, a citizen of the United States, residing at the city of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Electric-Lamp Sockets, of which the following is a full, clear, and exact description.

This invention relates to the construction of electric lamp sockets and the like, and has for its object the provision of means whereby a cap and shell may be attached together and detached from each other with facility and yet without providing a construction which is exceedingly simple and inexpensive of manufacture. In my construction there is practically no possibility of the cap and shell becoming accidentally or inadvertently detached from each other.

Other objects of my invention will be hereinafter set forth and particularly pointed out in the appended claims.

Referring to the accompanying drawings which form a part hereof and in which like characters designate like parts throughout the several views: Figure 1 is a perspective elevation of my improved socket shell. Fig. 2 is a perspective view of the cap therefor. Fig. 3 is a perspective view of my socket base with threaded shell attached. Fig. 4 is a longitudinal section of the assembled parts.

The casing or outer shell has been broadly designated 1, and such casing, which is substantially of the usual construction in so far as the lower portion thereof is concerned, is provided with a plurality of struck-up bosses or lugs 2 substantially semi-cylindrical in cross-section, said bosses being arranged in circumferential alinement in the same plane. Intermediately disposed between the said bosses are a series of somewhat oddly shaped notches 3, which are formed by nicking or punching out portions of the upper edge of the shell in the manner shown. These notches each comprise two principal portions, namely, a square notch 4, the sides of which are substantially parallel, and a trapezoidal notch 5 which adjoins notch 4. The formation of the two notches is hence such as to provide a projection or tooth 6 substantially in the center of the overall length of each of the notches, such tooth having one flank thereof obliquely disposed, while the other flank is substantially vertical. The

several teeth face around in the same direction, and the lining of insulating material 7, which may be of fiber or other suitable material, and which is disposed in the interior of the shell 1, is notched in correspondence with said shell. A tongue 8 is punched out at at least one point from the said lining and being outwardly disposed is adapted for engagement with the interior wall of one of the struck-up lugs 2. The cap 9, which is adapted to engage the upper edge of shell 1, is provided upon the lower edge thereof with a series of L-shaped slots or recesses 10. The width of each of these notches at its narrowest portion, namely, that which intersects the lowermost edge of the cap, is of substantially the same dimension as the length of each of the projections or lugs 2 hereinbefore referred to, and as the slots 10 are correspondingly spaced to the said lugs 2, when the cap is placed over the end of the shell 1, the said lugs will enter the respective slots 10, and the cap may then be rotated until the lugs are in engagement with the walls of the restricted portions of such notches, thus substantially providing a bayonet-joint between the cap and shell.

In the exemplification of my device shown in the accompanying drawings, the cap is intended to be rotated clockwise for engagement. The upper end of cap 9 is apertured in the usual manner, and a washer 11 is disposed in the interior of said cap, which is also correspondingly apertured. This washer is of resilient material and is preferably soldered fast to the interior of the cap. Downwardly extending from one side of said washer is a resilient tongue 12 which approximately conforms to the outline of the cap and extends through and out of the same through an aperture 13 in the lower portion thereof; the extreme end 14 of said tongue being downwardly bent as shown by dotted lines in Fig. 2, so that the end thereof may not slip inside of the orifice through which it projects. A second washer 15 is superposed upon the first, and carries downwardly projecting arms or tongues 16, one of which is preferably disposed directly in front of or over the tongue 12, the reason for which, it may be here noted, is to afford protection for the said resilient tongue, preventing inexperienced persons from damaging the same after they have removed the cap from its shell. The washers 11 and 15

are held in place and secured to the cap 9 by means of the usual threaded thimble 16', the lower edge of which is peened or riveted over as at 17 against the lower surface of washer 15 and the upper edge of said thimble being correspondingly bent over or spun out against the upper edge 18 of the cap 9. Thimble 16' is preferably threaded in the usual manner for engagement with a suitable stud.

A socket base or body 19 having the usual threaded metallic shell or socket 20 affixed thereto is shown in Fig. 3. The base may be of porcelain or other insulating material and is adapted for insertion into the shell 1 in the usual manner and the only feature of invention which I wish to present in this application in connection with this element is the provision of recesses 21 in the upper surface thereof; which recesses are adapted for the reception of the ends of the downwardly projecting tongues 16. As these tongues are secured to the cap and are readily slipped into engagement with the respective sides of recesses 21, when the parts are assembled, they efficiently serve to prevent the base 19 from rotating loosely around in the shell, when connection is being made to the threaded socket 20. A suitable lining 22 is provided for the cap; such lining being preferably somewhat cup-shaped, and of material corresponding to that used for lining 7 of shell 1. This lining is pressed down into place in the cap 9, the edges thereof being thereby snapped into engagement with inwardly projecting tongues 23; which latter are respectively formed by striking up a sliver of metal from near the end of each of the tongues 16. The lining 22 is provided with a suitable aperture 24 substantially at the center of said cap through which the usual leads may be passed for connection with the terminals carried by base 19. It will hence be seen that I have provided a suitable socket and cap for the reception of an insulating base and its appurtenant parts; said cap and shell being provided with means for affording a most secure engagement therebetween, and yet withal engaging means which are readily separable.

The resilient tongue 12 which serves to lock the parts against rotation, so co-acts with the wall of the cap proper that any normally encountered thrust upon said tongue does not bend or distort the same, but is in turn transmitted to the respective side walls of aperture 13 in said cap; which obviously thereby affords great strength of construction while permitting the use of light parts. When the cap 9 is placed in position upon the shell 1, any one of the slots 10 may receive any one of the circumferentially disposed lugs 2. The resilient tongue 12 passes down through the portion 5 of the

recess 3, and thereafter when the cap is rotated with respect to the shell, the said tongue rides up upon the inclined surface of the tooth 6 and snaps down into engagement with the bottom of recess 4. The abrupt walls of said recess and particularly that provided by projections 6, serve to prevent further rotation, until the end of the tongue 14 has been raised by the finger of the operator.

It will be readily seen that the construction employed in my socket permits of material reduction in the cost of manufacture, while at the same time the engagement of the locking means is most effective.

What I claim is:

1. A lamp socket comprising a cap and a shell having a bayonet-joint connection therebetween, one of said structures having a projection extending outwardly directly from the edge proper thereof and the other of said structures having a manipulatable resiliently acting part disposed for engagement with an abrupt wall of said projection whereby relative rotation between the structures may be prevented.

2. An incandescent lamp socket having a cap and shell detachably connected, the cap having a plurality of L-shaped recesses in the lower portion thereof, and the shell having a plurality of lugs disposed in circumferential alinement and adapted for engagement with the respective L-shaped recesses aforesaid, said shell further having a plurality of recesses in the upper edge thereof, each of said recesses being formed to provide a tooth in the bottom thereof, and a resiliently acting element carried by the said cap, a portion of which element is adapted for engagement with the flank of the said tooth.

3. An incandescent lamp socket having a cap and shell detachably connected, insulating linings for said cap and shell, said shell having a plurality of circumferentially alined struck-up lugs, the lining of said shell having a tongue struck-up therefrom engageable with a recess in the shell disposed immediately back of one of the struck-up lugs aforesaid, and a sheet metal part carried by said cap having a struck-up portion thereon adapted for engagement with the material forming the lining of said cap.

4. An incandescent lamp socket comprising a shell and a cap provided with means for locking said parts together said means comprising a resilient tongue secured to the interior of said cap and extending outwardly through an aperture therein, and a protective strip disposed over said resilient tongue to afford protection to the same, said tongue being adapted for engagement with a co-operating recess in the upper portion of the shell aforesaid.

5. An incandescent lamp socket compris-

ing a shell, a cap, and a base positionable therein, said base being provided with recesses in the upper portion thereof and said cap being provided with downwardly projecting tongues for engagement with the said recesses when the parts are in assembled relationship, locking means for said cap and shell, said means comprising a resilient tongue carried by one of said parts, and a cooperating recess provided by the other of said parts, one of the said base engaging tongues being disposed over said resilient tongue to afford protection to the same.

6. An incandescent lamp socket comprising a cap and shell having a detachable connection with each other, means carried by said cap and shell comprising parts engageable by a rotary movement of said cap with respect to said shell, and means for locking said cap and shell in predetermined relationship, whereby rotary movement between the same is prevented, comprising a resilient member carried by one of said elements, and adapted for engagement with the walls of a recess provided in the upper edge of the other of said elements.

7. An incandescent lamp socket having a cap and shell detachably connected, one of said parts having a plurality of projections

thereon and the other of said parts a plurality of corresponding recesses, said protuberances and recesses being engageable by relative rotation of the parts, a resiliently acting member secured to one of said parts the other of said parts having a recess directly in the edge thereof, and a tooth shaped structure positioned in said recess, engageable with said resiliently acting member to prevent relative rotation between said parts.

8. A lamp socket comprising a cap and a shell having a bayonet joint connection therebetween, one of said structures having a projection extending outwardly directly from the edge proper thereof and the other of said structures carrying a manipulatable, resiliently acting member disposed for engagement with an abrupt wall of said projection whereby relative rotation between the structures may be prevented, a portion of said member projecting into an aperture provided in the side of the structure which carries the said member.

In witness whereof, I subscribe my signature, in the presence of two witnesses.

JAMES S. STEWART.

Witnesses:

WALDO M. CHAPIN,
JAMES D. ANTONIO.