

F. BARR.
 SOCKET CONSTRUCTION.
 APPLICATION FILED AUG. 2, 1912.

1,064,424.

Patented June 10, 1913.

Fig. 1.

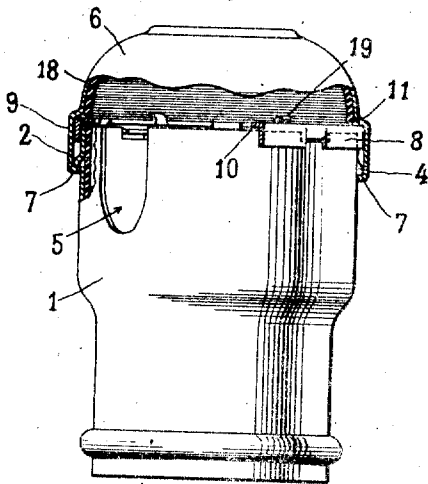


Fig. 2.

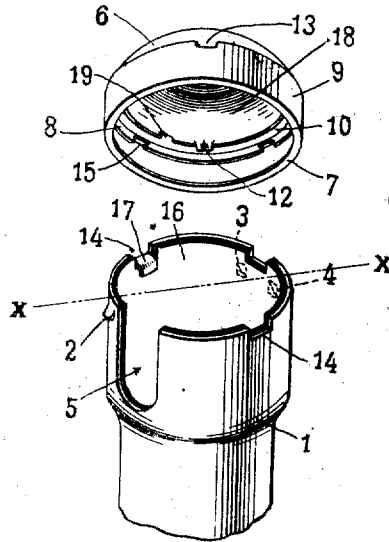


Fig. 3.

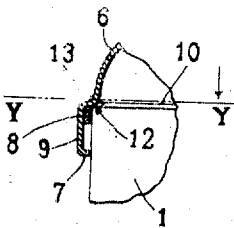


Fig. 4.

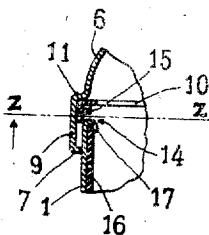


Fig. 5.

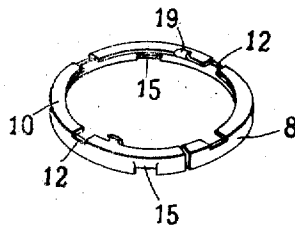


Fig. 6.

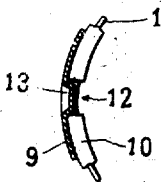


Fig. 7.

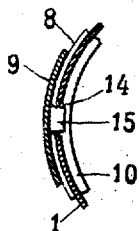
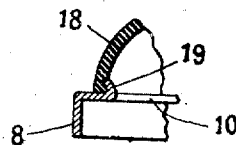


Fig. 8.



WITNESSES

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UNITED STATES PATENT OFFICE.

FREDERIC BARR, OF NEW YORK, N. Y.

SOCKET CONSTRUCTION.

1,064,424.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed August 2, 1912. Serial No. 712,856.

To all whom it may concern:

Be it known that I, FREDERIC BARR, a citizen of the United States of America, and residing at New York, in the county of Kings and State of New York, have invented new and useful Improvements in Socket Construction, of which the following is a specification.

My invention relates particularly to the method of interlocking the parts and holding in place the insulating lining of an electric lamp socket or switch socket.

One object is to provide a simple, inexpensive and readily operable means for interlocking the body and cap of a socket shell and holding the parts securely in position but so that they may be readily separated when desired. Another object is to secure the insulating lining in the cap in such a manner that it is not likely to be accidentally lost but that it may be removed when desired. Another object is to hold the lining in the body in a simple manner.

In the form shown all the above objects are carried out by a simple method of construction. The body and cap are formed so as to telescope, the cap being provided with an interior flange and the body with a number of projections to engage the flange, the flange and projections being so formed and arranged that the body can be readily inserted in the cap but will interlock automatically and the body being resilient so that it may be compressed to disengage one of the shoulders and permit separation of the parts. A ring is provided in the cap which is interlocked with the cap and adapted to be interlocked with the upper edge of the body of the shell to prevent relative rotation. This ring also holds in place the insulating lining in the cap. The lining in the body of the shell may be held in place by a lug or lugs at the upper edge and the formation of these lugs may provide the notches to interlock with the ring.

Figure 1, is a vertical projection and partial section of a lamp socket shell embodying the improvements of my invention, the section being taken on the plane of the line X X of Fig. 2. Fig. 2, is a perspective view of the parts separated. Fig. 3, is a fragmentary vertical sectional view showing the interlocking of the ring with the cap.

Fig. 4, is a fragmentary vertical sectional view showing the interlocking of the body with the ring. Fig. 5, is a perspective view of the ring detached. Fig. 6, is a fragmentary horizontal section on the plane of the line Y Y of Fig. 3 showing the interlocking of the ring with the cap. Fig. 7, is a fragmentary horizontal section on the plane of the line Z Z of Fig. 4 looking upward. Fig. 8, is a fragmentary vertical sectional view showing the method of securing the insulating lining to the ring.

The body 1 of the shell is provided just below its upper edge with two or more projections such as 2, 3 and 4. One of these projections is preferably located in a particularly resilient portion of the body formed for instance by the slot 5. The other projection or projections are formed in the shell opposite the projection 2 and preferably all of these projections are inclined on their upper faces so as to facilitate introduction into the cap. The cap 6 is provided with an interiorly directed marginal flange 7 into which the open end or upper edge of the body of the shell is adapted to be inserted and with which the abrupt lower edges of the shoulders 2, 3 and 4 are adapted to be interlocked. By compressing the body of the shell adjacent the projection 2 the projections may be disengaged from the flange 7 sufficiently to permit the body of the shell to be retracted from the cap.

The ring shown in Fig. 5 in the preferred form has a vertical flange 8 adapted to fit within the rim 9 of the cap and to fill the space between the rim and the upper edge of the body of the shell so as to prevent the body from being tilted sidewise. The ring also has a horizontal flange 10 which serves as a stop for the upper edge of the body. The ring itself abuts against the annular shoulder 11 in the cap. The ring is prevented from turning in the cap for instance, by being provided with one or more notches such as 12 which interlock with one or more indented shoulders such as 13 in the cap. By making the ring in split form as shown in Fig. 5 it may be more readily inserted and taken out when desired and by making it slightly larger than the interior of the rim 9 of the cap and resilient it can be sprung and held frictionally in place.

To prevent the body of the shell from rotating it is provided with one or more notches such as 14 which interlock with projections such as 15 formed by interiorly directed tongues integral with the ring. To connect the body and cap of the shell, the body is inserted within the rim of the cap until the upper edge of the body engages the projections 15. Either the body or cap is then rotated until the notches such as 14 correspond with the projections such as 15 and if pressure is applied to the parts of the shell they will be telescoped sufficiently to interlock the projections 2, 3 and 4 with the flange 7. By supplying four projections such as 15 in the ring and four notches such as 14 in the upper edge of the body of the shell, the introduction and the interlocking of the body without tilting or cramping is facilitated. In the form shown the upper end of the slot 5 performs the function of one of the notches 14.

The insulating lining 16 of the body may be conveniently held in place by means of a tongue or lug 17 formed from the metal bent inward from the body to form one of the notches 14.

The insulating lining 18 in the cap may be made of any suitable material such as porcelain, fiber or paper shaped to correspond with the interior of the cap and it is held in place by the horizontal flange 10 of the ring as indicated in Fig. 1. When the flange is made wide enough it will hold the cap lining in place without being attached to the lining but one or more tangs such as 19 may be provided on the ring and indented or bent over and interlocked with or impressed into the edge of the lining 18 so as to hold the lining more securely in place. When the lining is secured to the ring the two may be removed together from the cap. In case the lining is not secured to the ring if the ring is removed, the ring may be slipped down in the rim of the cap sufficiently to free the lining from the upper portion of the cap and the cap may then be tilted so as to remove it. If the ring is fastened in the cap for instance, by solder or otherwise, then in that case the lining cannot be removed from the cap unless it is somewhat flexible or resilient.

In the form shown it will be noted that the rim of the cap performs the function of a longitudinal interlock with the body and also as a housing for the ring. It will also be noted that the ring performs the function of positioning the upper end of the body of the shell and interlocking the body to prevent its rotation, and holding the lining of the cap in place.

While I have illustrated and described in detail the preferred form of the invention it should be understood that modifications of

details may be made without departing from the spirit or scope of the invention.

What I claim is:—

1. In a socket shell, a body having notches in its upper edge and lateral projections near its edge, a cap having an interiorly directed marginal flange for interlocking with said projections and a ring interlocking with said cap and having horizontal and vertical flanges for positioning the edge of said body and having interiorly directed projections interlocking with the notches in the edge of said body.

2. In a socket shell construction, a cap having a rim with an interior shoulder and an interiorly directed marginal flange, a loose ring mounted in said rim adjacent said shoulder and of less depth than the distance between said shoulder and said flange, said cap and said ring having interlocking notches and projections preventing relative rotation, said ring being adapted to be moved away from said shoulder and a body having projections interlocking with said flange and preventing longitudinal separation, said body and ring having interlocking notches and projections preventing relative rotation.

3. In a socket shell construction, a cap, a body having a notched edge telescoping therewith and a ring of angular section with a circumferential flange fitting around the edge of the body and an annular flange acting as a stop for the edge of the body, the circumferential flange having one or more projections interlocking with one or more corresponding notches in the edge of the body.

4. In a socket construction, a cap having an interior shoulder and one or more interiorly directed projections, a movable ring in said cap abutting against said shoulder and having one or more notches corresponding to the projections in the cap and a body telescoping with said cap and interlocking with said ring to prevent relative rotation and interlocking with said cap to prevent longitudinal separation.

5. In a socket construction, a body having four equally spaced notches in its open edge and oppositely positioned projections with abrupt edges facing away from said edge and a cap member having a rim with an inwardly directed marginal flange and one or more projections in said cap to interlock with the notches in said body when the projections on the body interlock with said flange.

6. In a socket construction, a cap and body having interlocking means to prevent longitudinal displacement, an insulating lining in said body, a lug cut from the edge of said body and holding said lining in place and leaving a notch in the edge of

said body and a projection in said cap interlocking with said notch to prevent relative rotation.

7. In a socket construction, a cap, a ring movably secured therein and an insulating lining secured to said ring and movable therewith.

8. In a socket construction, a cap, a ring

detachably secured in said cap and an insulating lining secured to said ring and movable therewith.

FREDERIC BARR.

Witnesses:

ROBT. S. ALLYN,
E. BRADFORD.

Correction in Letters Patent No. 1,064,424.

It is hereby certified that in Letters Patent No. 1,064,424, granted June 10, 1913, upon the application of Frederic Barr of New York, N. Y., for an improvement in "Socket Construction," an error appears in the printed specification requiring correction as follows: Page 2, line 44, for the word "removed" read *removable*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 1st day of July, A. D., 1913.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.

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