Oct. 14, 1930. A. H. NERO 1,778,684

ELECTRIC LAMP SOCKET

Filed March 30, 1925

Fig. 1.

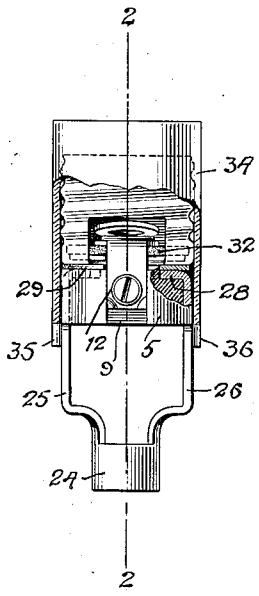


Fig. 2.

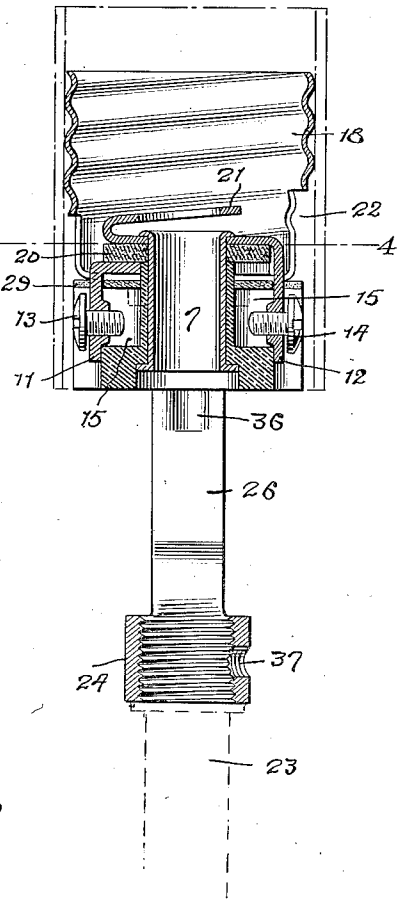


Fig. 3.

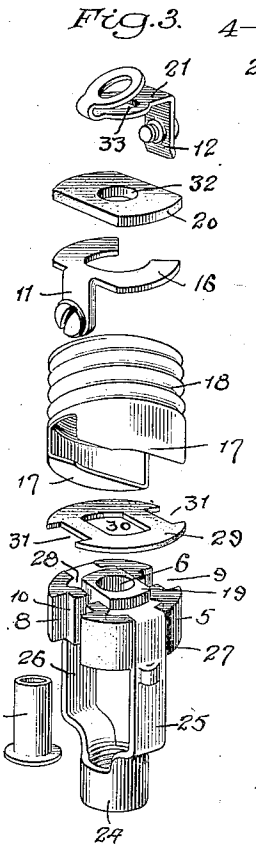
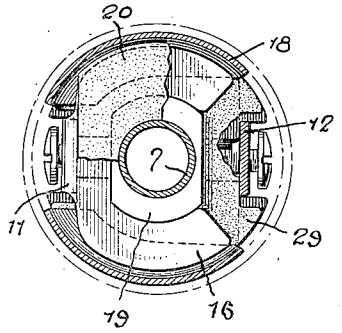


Fig. 4.



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UNITED STATES PATENT OFFICE

ARVID H. NERO, OF WEST HARTFORD, CONNECTICUT, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE ARROW-HART & HEGEMAN ELECTRIC COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT

ELECTRIC-LAMP SOCKET

Application filed March 30, 1925. Serial No. 19,524.

My invention relates to electric lamp sockets, and particularly to a socket of the candle type. The object of my invention is to provide a rugged socket structure and support which is economically manufactured and at the same time serviceable and efficient in operation.

In the accompanying drawings—

Fig. 1 is a broken side elevation of a socket in which my invention is embodied in one form;

Fig. 2 is an enlarged vertical section on the line 2—2, Fig. 1;

Fig. 3 is a dropped perspective of the socket parts; and

Fig. 4 is a section on the line 4—4, Fig. 2.

While the specific object of my invention is to provide a structure particularly adapted for installations of the candle socket type, certain features of the construction are applicable to sockets of other types. The invention is therefore not limited to candle sockets and it will be obvious to any one skilled in the art that the details of shape and form illustrated may be variously modified without departing from my invention.

As shown, however, the present socket comprises an insulating button or body 5 centrally pierced by an axial hole 6 adapted to receive a tubular rivet 7 by which the various current carrying elements of the socket are secured upon the button. The periphery of the button is cut at diametrically opposite points by channels 8 and 9, preferably shouldered to form seats 10 for the wire terminal plates 11 and 12. To hold the wire ends, the plates carry binding screws 13 and 14, the inner ends of which enter the narrow channels 15 bounded by the side walls of the seats 10 against which the terminal plates rest.

The terminal plate 11 is integral with an offset yoke 16 which overlies the base flanges 17 of the screw shell side contact 18 at one end of the insulating button 5. As will be noted from Fig. 4, the arms of the yoke closely embrace the curved sides of the upstanding boss 19 which projects from at one end of the button, and thus prevents its escape. Spaced from the yoke 16 by the insulating washer 20 is the offset center contact 21 integral with the terminal plate 12 which passes freely through an aperture 22 in the side of the shell contact 18 from which it is thus spaced.

In order to mount the socket on the usual pipe conduit 23 I provide a bracket-like support or hickey comprising a nipple 24 tapped to screw upon the pipe end and having integral therewith a pair of offset arms 25 and 26, the upper reaches of which are received in lateral channels 27 formed in opposite sides of the button 5 on an axis substantially at right angles to the channels 8 and 9 for the reception of the wire terminal plates. The upper ends of the bracket arms 25 and 26 are offset toward each other and are provided with heads 28 received in depressed seats in the upper face of the button 5. To insulate the bracket from the screw shell contact 18, an insulating washer 29 is interposed between the bracket heads 28 and the bottom flanges 17 of the screw shell. The washer 29 is maintained in proper position by the non-circular boss 19 which is received in a correspondingly shaped hole 30 in the insulating washer. Marginal gaps 31 in the washer, register with the channels 8 and 9 of the button and accommodate the wire terminal plates 11 and 12 which pass upward therethrough to the socket contacts.

All of the parts are held in assembled position upon the button by the single tubular rivet 7 which passes through the hole 6 in the button 5. the hole 32 in the washer 20, and the hole 33 in the base of the center contact 20. and is spun over the latter to firmly secure the parts together.

Surrounding the electrical conductors of the socket is an insulating casing 34 which encloses the screw shell 18 and the lateral wire terminals 11 and 12 and thus prevents possible contact with the ornamental candle tube (not shown) which may be of metal. The casing 34 may be slipped freely down over the screw shell and body of the socket, being supported at its lower edge upon bosses 35 and 36 struck outwardly from the arms 25 and 26 of the carrying bracket at appropriate points.

The carrying bracket is preferably formed from a sheet metal blank which is drawn to form a nipple 24 and shaped to form the

arms 25 and 26. The nipple is preferably pierced and tapped at 37 to accommodate a set screw (not shown). The formation of the hickey in this manner from a sheet metal blank is a matter of considerable economy and affords a more satisfactory nipple—since the usual staking and soldering operation by which the arms are usually secured to the machine screw nipple are avoided—as well as the danger of injury to the threads.

All of the parts are simple and rugged, readily formed and assembled upon the button, while the single holding rivet performs in a single operation what is customarily accomplished by means of a group of holding screws. The latter not only weaken the body of the button, but add to the cost of construction, and assembly. While the rivet is of a diameter sufficient to accommodate a wire passed through the conduit and thus facilitates wiring of the socket, a solid rivet or a tubular rivet of less diameter may be used if this advantage is not desired. When the insulating button is of molded composition, the head of the rivet may be molded therein—and as above stated, if the central hole in the button is not desired, the rivet may be of less diameter or not tubular.

Various modifications in form and construction will readily occur to those skilled in the art, without departing from what I claim as my invention.

I claim—

1. An electric lamp socket comprising an insulating body, lamp receptacle contacts, wire terminals, a supporting bracket, all having engaging elements overlying one end of said body, insulating washers spacing certain of said members apart, and unitary means common to said parts for securing the same in assembled position on the insulating body.

2. An electric lamp socket comprising an insulating body, a screw shell arranged at one end of the body, a supporting bracket having engaging means overlying said end of the body beneath the screw shell, insulation spacing said screw shell from the engaging means of the bracket, and means for securing said screw shell on the body and thus to confine said engaging means of the bracket.

3. An electric lamp socket comprising an insulating body, screw shell and center lamp contacts arranged at one end of said body, a supporting bracket comprising a pair of bracket arms embracing the body and having offset lugs overlying said end of the body, an insulating casing surrounding the screw shell, and outwardly projecting lugs on said bracket arms against which one end of the casing freely rests for support.

4. An electric lamp socket comprising an insulating body, lamp receptacle contacts arranged at one end thereof, associated wire terminals having binding means arranged at the sides of the body and having extensions overlying said end of the body, and a single securing means common to said receptacle contacts and wire terminals, for holding the same in assembled position on the body.

5. An electric lamp socket comprising an insulating button peripherally recessed to afford channels extending in a direction substantially parallel with the axis of the button, lamp receptacle contacts arranged at one end of said button, associated wire terminal members extending into certain of said lateral channels, a supporting bracket having members arranged in certain other of said lateral channels, and means common to said members for securing the same in assembled position on the insulating button.

6. An electric lamp socket having an insulating body, lamp receptacle contacts arranged at one end of said body, associated wire terminals having portions overlying said end of the insulating body, a supporting bracket having an element overlying said end of the body, and means projecting from said end of the insulating body and serving to hold all of said parts in assembled position thereon.

7. An electric lamp socket having a centrally pierced insulating body, lamp receptacle contacts, associated wire terminals, and a supporting bracket, all having members arranged at one end of said body, and a tubular member substantially concentric with the hole in the insulating body and projecting beyond said end thereof and serving to hold all of said parts in assembled position thereon.

8. An electric lamp socket having an insulating body, lamp receptacle contacts arranged at one end of said body, associated wire terminals having portions overlying said end of the insulating body, a supporting bracket having an element overlying said end of the body, and means common to said parts for holding the same in assembled position on the socket body.

In testimony whereof I have signed my name to this specification.

ARVID H. NERO.