A. L. POWELL.

EXTENSION PLUG FOR ELECTRIC LIGHTS, &c.

APPLICATION FILED NOV. 17, 1915.

1,206,245. Patented Nov. 28, 1916.

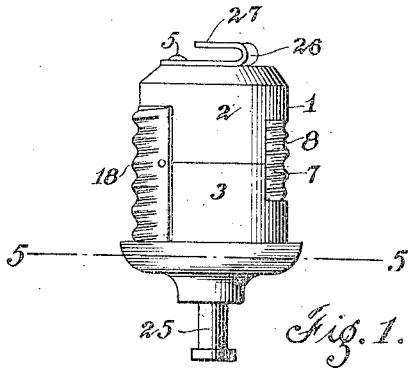



Fig. 1.

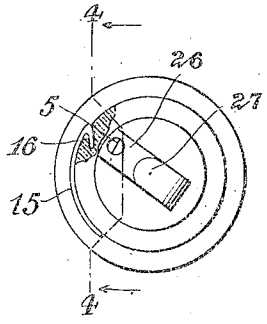



Fig. 2.

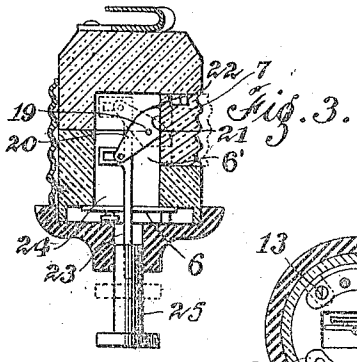



Fig. 3.

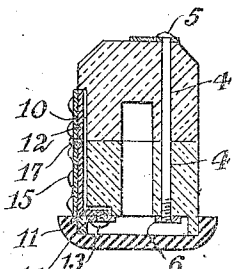



Fig. 4.

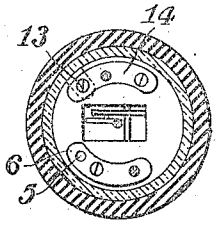



Fig. 5.

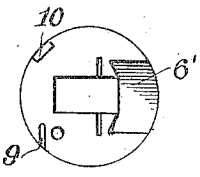



Fig. 6.

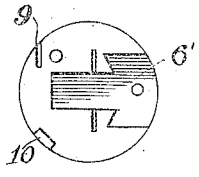



Fig. 7.

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# UNITED STATES PATENT OFFICE.

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## EXTENSION-PLUG FOR ELECTRIC LIGHTS, &c.

1,206,245. Specification of Letters Patent. Patented Nov. 28, 1916.

Application filed November 17, 1915. Serial No. 62,003.

*To all whom it may concern:*

Be it known that I, ARTHUR L. POWELL, a citizen of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented new and useful Improvements in Extension-Plugs for Electric Lights, &c., of which the following is a specification.

This invention relates to improvements in extension lights and the like and has particular application to an attachment plug which may be inserted in the receptacle and removed therefrom without the necessity of revolving the plug.

In carrying out the present invention, it is my purpose to provide an extension plug of the class described which may be readily and quickly applied to and removed from the receptacle without the necessity of revolving the plug and twisting the wire, and to provide a plug which will embrace the desired features of simplicity, efficiency and durability, which will be securely and effectively locked in the receptacle when applied thereto, and wherein the component parts will be so arranged and correlated as to reduce the possibility of derangement to a minimum.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claim.

In the accompanying drawing, Figure 1 is a view in side elevation of an extension plug constructed in accordance with the present invention. Fig. 2 is a top plan view thereof. Fig. 3 is a vertical sectional view through the plug. Fig. 4 is a similar view taken at right angles to Fig. 3. Fig. 5 is a horizontal sectional view through the plug. Fig. 6 is a bottom plan view of one of the sections. Fig. 7 is a similar view of the other section.

Referring now to the drawing in detail, 1 designates the body of my improved attachment plug. This body comprises sections 2 and 3 formed of porcelain or analogous material and placed end to end and formed with alining bores 4 eccentrically thereof through which is passed a securing pin 5 having one end headed and resting upon the outer end of the section 2 and the remaining end threaded into a curved plate 6 embedded in the outer end of the section 3 adjacent to the periphery thereof. The confronting faces of the sections 2 and 3 of the body 1 are formed with T-shaped slots communicating with each other and forming a T-shaped cavity 6′ and mounted within the head of the T-shaped cavity 6′ is a block 7 capable of lateral sliding movement within the head of the cavity and having the outer surface thereof curved to conform to the curvature of the body of the plug and formed with screw threads 8. Formed in the side wall of the body of the plug opposite from the cavity is an under-cut groove 9, while formed in the body at a point between the under-cut groove 9 and the cavity is a slot 10 having the lower end thereof opening into a recess 11 and disposed within the slot 10 is one leg of a substantially L-shaped strip 12, the remaining leg being disposed within the opening 11 and connected by means of a screw 13 to a curved strip 14 on the outer end of the section 3.

15 designates a curved metal plate having one edge bent upon itself as at 16 and disposed within the under-cut groove 9 and the remaining edge fastened to the leg of the strip 12 in the groove 10 by means of rivets 17 or other fastening devices. The outer surface of the plate 15 is formed with threads 18 forming, in effect, a continuation of the threads 8 on the outer surface of the block 7 and designed to coöperate with such threads 8 to hold the plug in the receptacle.

Arranged across the stem portion of the T-shaped cavity 6′ and secured to the side walls of such stem portion at a point approximately centrally of the length thereof is a pin 19 and mounted upon the pin 19 and capable of swinging movement is a lever 20. One end of the lever 20 is formed with a straight edge 21 and a nose 22 contiguous to the straight edge and is adapted to engage the adjacent side of the block 7, while the remaining end of the lever is pivotally connected with the inner end of a rod 23 slidably mounted in a bore 24 formed in the section 3 and projecting beyond the outer end of such section. Suitably secured to the outer end of the rod 23 is a knob 25. In the present instance, a metal strip 26 is secured to the headed end of the pin 5 and overlies the central portion of the outer end of the section 2 and is equipped with a spring finger 27 adapted to engage the central contact of the receptacle so as to form a good electrical connection between such contact and the pin.

In practice, when it is desired to insert the plug in the receptacle, the rod 23 is pulled downwardly, thereby swinging the lever 20 with the effect to place the straight edge 21 on the block end of such lever contiguous to the inner side of the block 7. The block may now be slid into the cavity so as to reduce the size of the plug and enable the latter to be slipped into the receptacle. After the plug has been placed in the receptacle, the rod 23 is pushed upwardly, thereby swinging the lever 20 about the pin 19 with the effect to engage the nose 22 with the adjacent side of the block and so slide the block outwardly of the cavity so that the threads 8 will engage the threaded shell of the receptacle and force the threads 18 on the plate 15 into engagement with the threaded shell, thereby holding the plug within the receptacle. The terminals of the current carrying wires may be connected to the plate 15 and the pin 5 in any suitable manner so that current may be taken from the receptacle through the plug.

In the swinging of the lever 20 under the action of the rod 23 to lock the plug within the receptacle, the nose 22 passes the axis of the lever 20 and the upper end of the lever engages the adjacent wall of the cavity, thereby securely locking the plug in the receptacle.

While I have herein shown and described one preferred form of my invention by way of illustration, I wish it to be understood that I do not limit or confine myself to the precise details of construction herein described and delineated, as modification and variation may be made within the scope of the claim and without departing from the spirit of the invention.

I claim:

An attachment plug for electric lamps and the like comprising a two-part body formed with a cavity opening onto one side thereof, a block in said cavity capable of lateral sliding movement therein, a lever pivoted between its ends within the cavity and having one end bearing against the block whereby the block may be moved out of the cavity in the movement of the lever in one direction to bind the plug against the side wall of the receptacle, and a rod extending through the plug longitudinally thereof and having one end disposed within said cavity and connected to said lever whereby the latter may be swung to slide the block.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR L. POWELL.

Witnesses:

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