Aug. 11, 1931. J. SERESUN 1,818,819

PLUG SOCKET

Filed Feb. 28, 1930

Fig. 1.

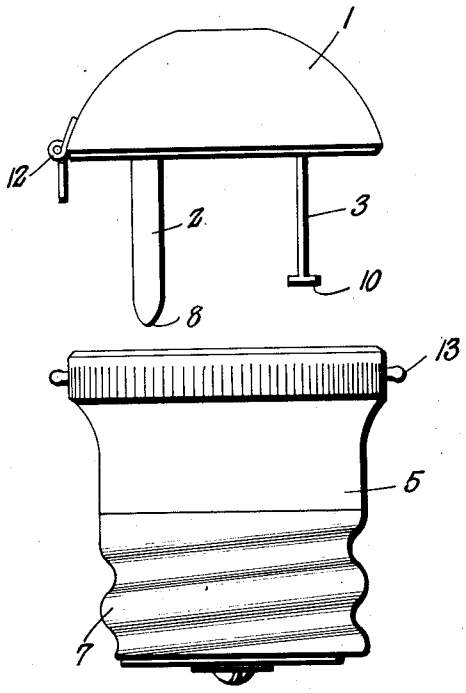
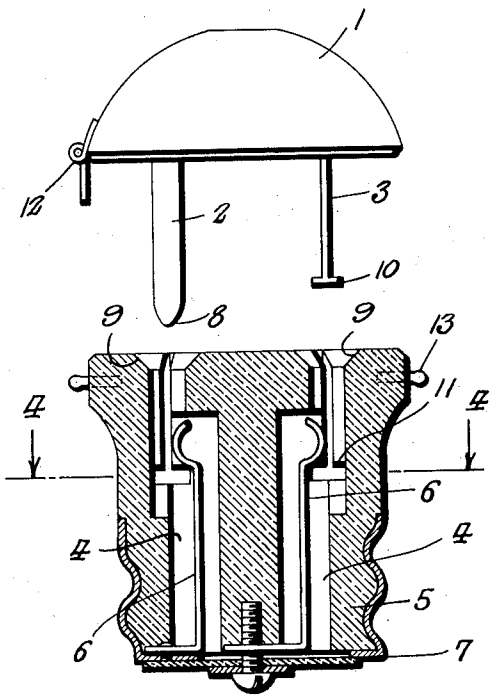


Fig. 2.



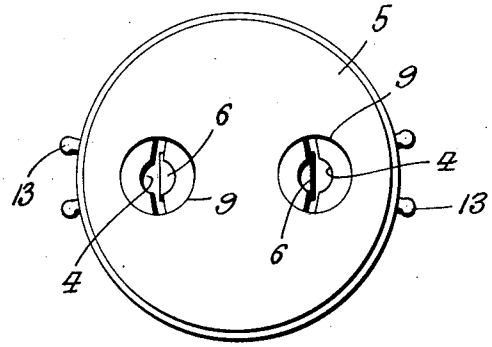


Fig. 3.

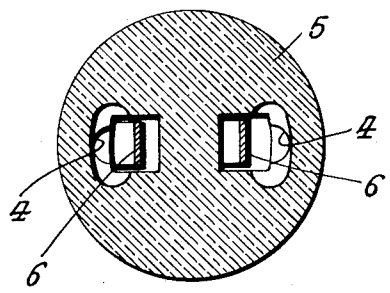


Fig. 4.

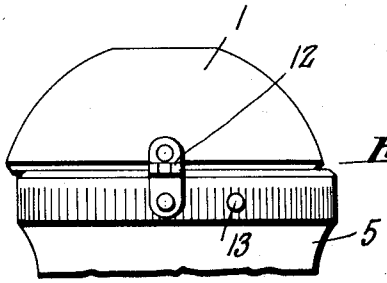


Fig. 5.

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UNITED STATES PATENT OFFICE

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PLUG SOCKET

Application filed February 28, 1930. Serial No. 432,150.

This invention relates to new and useful improvements in electric plug sockets especially adaptable for use on extension cords or electric conductors that are used on electric devices employed foreign to the electrical source or output and has for its primary object the provision of means for facilitating the insertion of electrodes or prongs of the plug element into the sockets or openings in a socket element and which will firmly secure the plug and socket elements together after the plug element has been positioned home in the socket element and turned relatively to the latter, thereby preventing accidental separation of the plug and socket elements when in use.

A further object of this invention is the provision of an electric plug socket of the above stated character, which shall be simple, durable and efficient, and which may be manufactured and sold at a comparatively low cost.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings in which:—

Figure 1 is a side elevation illustrating a plug socket constructed in accordance with my invention.

Figure 2 is a sectional view illustrating the same.

Figure 3 is a plan view illustrating the socket element.

Figure 4 is a transverse sectional view taken on the line 4—4 of Figure 2 and

Figure 5 is a fragmentary side elevation illustrating a catch for connecting the plug and socket elements.

Referring in detail to the drawings, the numeral 1 indicates a plug element and to which is secured the extension cord or electric conductors and is provided with electrodes 2 and 3 to be received within bores or sockets 4 of a socket element 5 and are adapted to engage the usual electrodes or prongs 6 located within the bores of the socket element to establish the usual electrical connection between the extension cord or conductor and the socket element 5. The socket element 5 is provided with the usual screw threaded ferrule 7 for securing the element 5 in the usual outlet or socket of an electrical source or output.

The electrode or prong 2 is of a greater length than the electrode or prong 3 and is adapted to enter one of the bores 4 prior to the electrode or prong 3 and has its free end pointed as shown at 8 to facilitate the insertion of the same into one of the bores 4 and said bores have their ends flared which open outwardly of the socket element 5 as shown at 9 to further facilitate the guiding of the electrode or prong 8 therein. After the prong or electrode 8 has been partly inserted within its respective bore 4, the electrode 3 is brought in engagement with the end of the socket element 5 and by turning the plug element 1 slightly in either direction and with a pressure on the plug element towards the socket element, the electrode or prong 3 will slip into its respective bore 4. After the plug element 1 has been brought in contact with the socket element 5 they are turned relatively to each other causing the head 10 on the electrode or prong 3 to move under a shoulder 11 formed in the bores 4 and thereby firmly lock the plug and socket elements securely and against accidental separation. The electrode or prong 8 is preferably of cylindrical formation while the prong or electrode 3 is provided with flattened faces and with the head 10 upon its free end extending angularly thereto. The bores 4 are of circular shape in cross section and their walls are provided with grooves to receive the flattened prong or electrode 3 and its head 10 thus it will be seen that the electrodes or prongs 2 and 3 may be inserted in either of the bores 4.

When using my invention on an extension cord of considerable length and where the same may be subjected to severe pulls

or jerks I have provided an additional securing means between the plug element and the socket element and includes a hinge catch 12 secured to the plug element in any desired manner and adapted to be snapped over a lug or projection 13 on the socket element thereby effectively connecting the plug and socket elements to each other and which will prevent separation of said elements when placed under stress.

From the foregoing description taken in connection with the accompanying drawings, it will be seen that a very efficient and novel means has been provided for facilitating the connection of the plug and socket elements by having one of the electrodes of a greater length than the other rendering it only necessary to first position the longest electrode into a bore 4 of the socket element which is much easier than when it is necessary to position both electrodes in both bores at the same time. With the long electrode or prong positioned in its respective bore a short distance, the electrode or prong 3 can then be brought against the end of the socket element and by turning the plug and socket elements relatively to each other and with a slight pressure thereon the short electrode will move into its respective bore, and with the plug and socket elements in engagement with each other and turned slightly in either direction, the head of the short electrode or prong will engage under the shoulder 11 of its respective bore and prevent accidental disconnection of the plug and socket elements.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what I claim is:

1. A device of the character set forth including plug and socket elements and said socket element having electrode bores, electrodes secured to the plug elements and one electrode of a longer length than the other electrode and adapted to be first positioned within one of the bores to guide the other electrode into its respective bore, shoulders formed in said bores, and a head carried by one of the electrodes and adapted to engage under one of the shoulders when the plug and socket elements are in engagement with each other.

2. A device of the character set forth including plug and socket elements and said socket element having electrode bores, electrodes secured to the plug and received by said bores, means for securing one of the electrodes in its respective bore, a hinge catch secured to the plug element and a lug carried by the socket element to be engaged by the hinge catch.

In testimony whereof I affix by signature.

JOHN SERESUN.