Dec. 4, 1923. 1,476,586

G. H. BOWEN

ELECTRICAL PLUG AND SOCKET EXTENSION UNIT

Filed Jan. 30, 1920

Fig. 1.

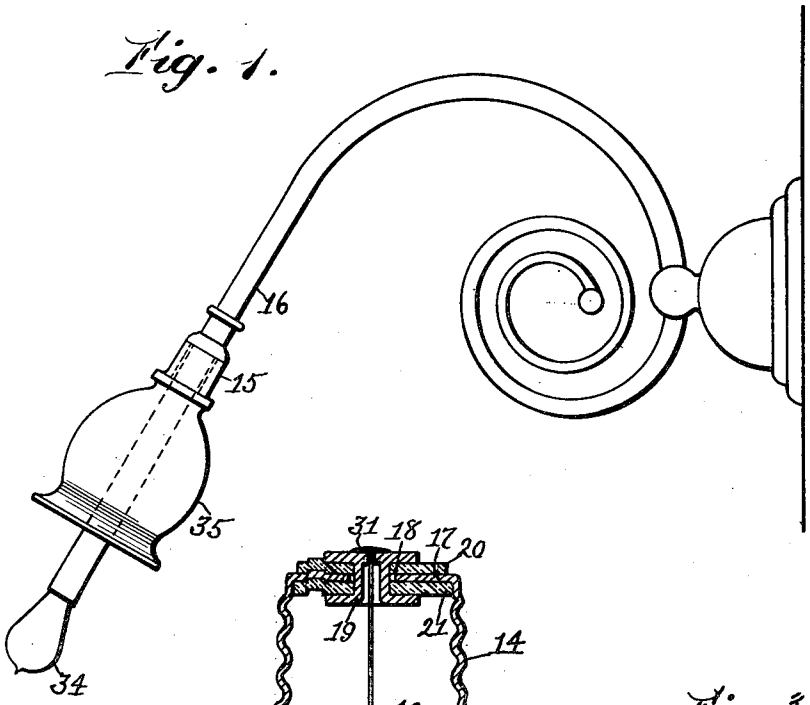


Fig. 2.

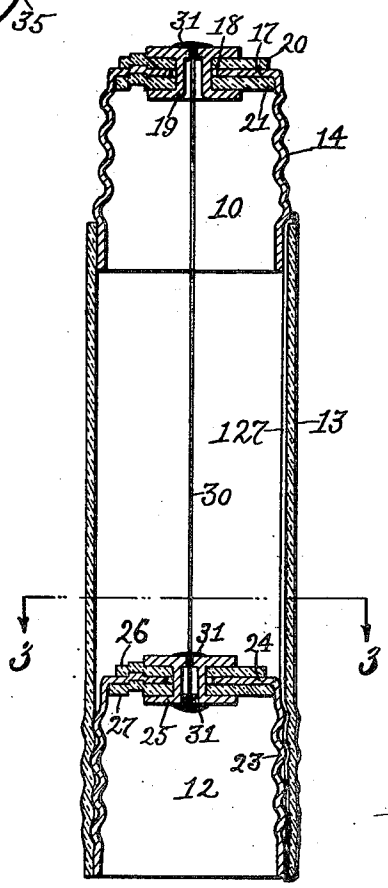
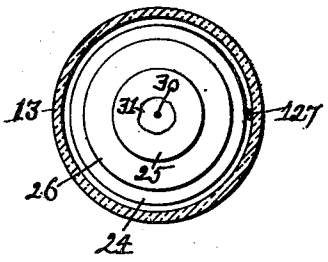


Fig. 3.



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GEORGE H. BOWEN, OF BOSTON, MASSACHUSETTS.

ELECTRICAL PLUG AND SOCKET EXTENSION UNIT.

Application filed January 30, 1920. Serial No. 355,041.

To all whom it may concern:

Be it known that I, GEORGE H. BOWEN, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Electrical Plugs and Socket Extension Units, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to an electrical plug and socket extension unit or connector.

Modern electrical fixtures are equipped in many instances with light shades having relatively narrow mouths. Considerable difficulty and inconvenience is encountered in manipulating an electric lamp bulb, or the plug of an electric iron, toaster or similar appliance, so as to screw the same into the socket at the base of the shade, because of the narrow mouth of the shade, and especially when the light fixture is located beyond the reach of the person standing on the floor.

The present invention has for its object to provide an electrical plug and socket extension unit or connector which may be safely handled and conveniently screwed into the socket at the base of a narrow light shade, to the end that a lamp bulb or the plug of an electrical appliance may be conveniently screwed into the socket of the unit instead of into the socket of the fixture at the base of the shade.

To this end the extension unit or connector is provided at one end with a plug member and at its opposite end with a socket member, which members are spaced apart a material distance and have corresponding terminals electrically connected together, and between the said plug and socket members the unit is provided with an external member of insulating material which constitutes a handle by means of which the connector or unit may be grasped by the operator, without danger of an electric shock. The insulated handle or member may be of any desired length according to the use to which the unit is put.

The particular features of the invention will be pointed out in the claims at the end of this specification.

Fig. 1 is a side elevation of a lamp fixture having connected therewith a connector or unit embodying this invention.

Fig. 2, a longitudinal section of the unit shown in Fig. 1, and

Fig. 3, a cross section on line 3—3, Fig. 2.

In the present instance one construction of connector or extension unit is shown, which consists of a plug member 10, a socket member 12 separated from the plug member by a substantial space, and having its positive and negative terminals electrically connected with like terminals of the plug member, as will be described, and an intermediate handle member 13.

The plug member 10 herein shown comprises a sheet metal shell 14 provided with a screw threaded body portion for engagement with the usual lamp socket 15 carried by the fixture 16. The shell 14 is provided with a head 17 having an opening 18, through which is passed a tubular stud or rivet 19 which is electrically separated from the head 17 by washers 20, 21 of insulating material. The washers 20, 21 may be secured in fixed relation to the head 17 in any suitable manner, and in the present instance, the washer 21 is subjected to a blow by a suitable tool not shown, which forces a portion of the washer 21 into the thin head 17, and a portion of the latter into the washer 20 and a portion of the latter beyond its upper surface, as clearly shown in Fig. 2, whereby the washer 21 is interlocked with the head 17 and the latter with the washer 20.

The socket member 12 is of like construction, and comprises the screw threaded shell 23, head 24, stud or rivet 25, and insulating washers 26, 27. The studs or rivets 19, 25 constitute positive terminals of the plug and socket members and are electrically connected by a wire 30 secured thereto by solder 31. The metal shells 14, 23 constitute the negative terminals of the plug and socket members and are electrically connected as hereinshown by a metal member shown as a strip 127. The shells of the plug and socket members are also connected by the handle member 13, which may be made as a tube of hard fibre or other insulating material, into the opposite ends of which the plug and socket members 10–12 are extended.

From the above description and by reference to the drawing, it will be seen that a simple, efficient and inexpensive device is provided with which the annoyances occasioned by the removal of the electric lamp

bulb 34 from the socket of a fixture, as 16, provided with a shade 35 having a narrow mouth, and the insertion into said socket of a plug member connected with an electric iron, toaster or other appliance, are avoided, for the extension unit or connector may be used as a permanent part of the fixture as hereinshown, and is made of sufficient length to render its socket member freely accessible to the operator desiring to connect the electrical appliance thereto, and when the latter is disconnected therefrom to connect the lamp thereto. The device is also useful in those cases where the lamp fixture is located at such height as to render it necessary for the person to stand on chairs or like devices in order to reach the lamp and remove it from the fixture, as the said device can be made of suitable length to bring its socket member within easy reach of the person standing on the floor.

Furthermore it is highly useful in those cases, wherein the electrical cord of an iron such as used in households for ironing clothes, is not sufficiently long to allow the iron to be moved freely over the ironing board. In such cases, the extension unit or connector practically extends the length of the electric cord and gives the iron a wider range of movement.

When the extension unit is included in circuit, the current flows from the terminal 19 of the plug member through the conductor 30 to the terminal 25 of the socket member, and returns from the shell 23 of the socket member to the shell 14 of the plug member by the conductor 127. The insulated handle interposed between the plug and socket members, enables the device to be handled by inexperienced persons with safety from shock.

One embodiment of the invention is hereinshown, but it is not desired to limit the invention to the particular construction shown.

Claim:

An electrical extension unit comprising a plug member and a socket member spaced apart and each comprising a metal shell provided with screw-threads and with a head carrying a contact member located substantially central with relation to said head and insulated therefrom, a tube of insulating material interposed between and frictionally engaged with said plug and socket members to constitute the support for both of said members and to form an insulated handle between them, a continuous electrical conductor within the insulating tube attached at its opposite end to the contact members carried by the heads of the shells of said plug and socket members, and an electrical connector within the insulating tube directly connecting the shells of said plug and socket members.

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

GEORGE H. BOWEN.