April 21, 1936. L. J. JOHNSON 2,037,907

PLUG AND SOCKET COUPLING

Filed April 27, 1932

Fig. 1.

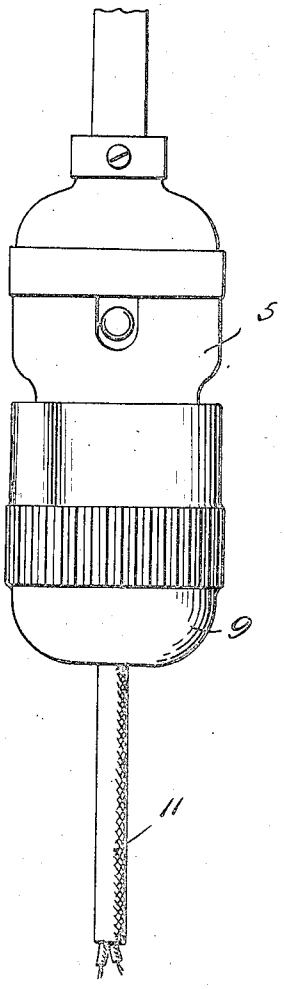
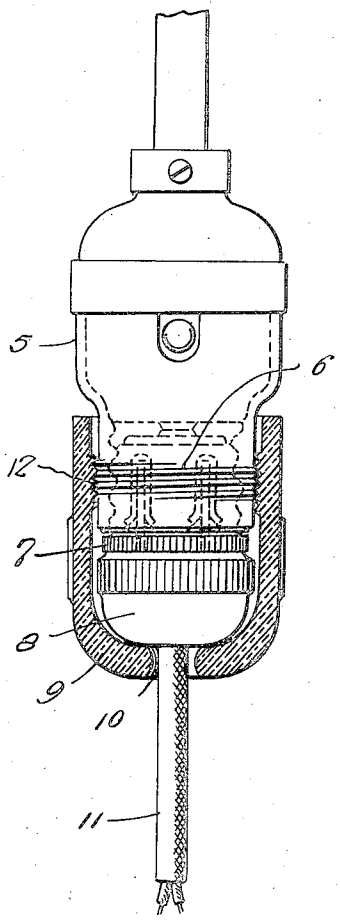


Fig. 2.



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PLUG AND SOCKET COUPLING

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1 Claim. (Cl. 173—343)

As is well known, separable plugs for electric conductors are commonly used for quick attachment of extension cords of various electrical appliances to extension lamp or wall sockets, in which uses the operator quite frequently unintentionally jerks the cord so as to often separate the parts of the plug and cut off the power, as well as to ultimately loosen the wire and contact connections of the plug.

The primary object of the present invention is to provide a coupling between the male member of a two-part plug and the extension lamp or wall socket in which the female member of the plug is threaded, whereby the above-mentioned loosening of wire and contact connections and separation of the plug parts is positively prevented, although intentional separation of the plug parts may be conveniently and quickly accomplished.

The invention consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing:

Figure 1 is an elevational view of a plug and socket coupling embodying the present invention; and

Figure 2 is a view similar to Figure 1 with the coupling member in central longitudinal section.

Referring more in detail to the drawing, **5** indicates a conventional type of extension lamp socket threaded externally for a short distance as at **6** on its plug-receiving end, and having the usual internal threaded contact shell for reception of the threaded base of an electric lamp or the threaded member **7** of a two-part plug, as is well known in the art and clearly indicated in Figure 2. The two-part plug is of a conventional type including the threaded female part **7** and the male part **8** having contact pins insertable in the female part **7** as is also well known in the art and indicated by dotted lines in Figure 2. The external threads of the lamp socket **6** are usually provided for facilitating the attachment of a lamp shade to said socket **5**.

In accordance with the present invention, the male member **8** of the two-part plug is arranged within a cup-shaped coupling member **9** having a small central opening **10** in its inner partially closed end through which the cord **11** of the plug member **8** extends. The partially closed end of the coupling member **9** is thus engaged behind the plug member **8**, and said coupling member **9** is of sufficient length to fit over the socketed end of lamp socket **5** when the male member **8** of the two-part plug is engaged with the female member **7** thereof and the said member **7** is properly threaded into the socketed end of lamp socket **5**. The coupling member **9** has internal threads as at **12** for being readily threaded onto the threaded portion **6** of lamp socket **5**, so that the male member **8** is drawn and positively held in proper engagement with the female member **7**. In this way the two parts of the plug are firmly held together and prevented from separation under jerking or other rough handling. At the same time, the coupling member **9** may be readily threaded out of engagement with the lamp socket **5**, whereupon the two parts of the plug may be readily pulled apart. The coupling member **9** may be cheaply manufactured of suitable insulating material so as to add little to the cost of ordinary separable plugs, and will furnish efficient means for avoiding loose contact connection between the parts of the separable plug and for preventing unintentional separation of said plug parts.

What I claim as new is:

A combination lamp socket and electrical appliance coupling comprising: a drop socket body adapted to be electrically connected to and carried by the two wires of a conventional house-lighting circuit, said socket having a sleeve portion provided with internal threads of relatively high pitch and great bearing surface adapted to receive the externally threaded base of a conventional threaded electric light bulb or appliance plug receptor, a protective shell for said socket consisting of a cap section through which the current-supply wires extend and a tubular section secured to said cap section and snugly engaged about said socket body for substantially its full extent, an appliance plug receptor having external threads engaged with the threads of said socket and having a pair of prong-receptive connector jacks therein electrically connected with the socket body, an appliance-cord-connecting plug having straight prongs projecting longitudinally from its forward end and frictionally received with the connector jacks of said plug receptor and having its rear end of convex form, and a cap-like assembly member having a central aperture for the free accommodation of the appliance cord, having a concave end portion defining said aperture and bearing upon the end of said appliance-cord plug over a far lesser area than the threaded area of contact of said socket-body and plug receptor, and having a cylindrical portion provided with a fine internal thread of relatively small area detachably engageable with the thread of said tubular sleeve section by relative rotation therewith, and rotatively disengageable from said tubular sleeve section and said appliance plug without disturbing the normal snug assembly of said plug, said plug receptor and said socket body.

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