

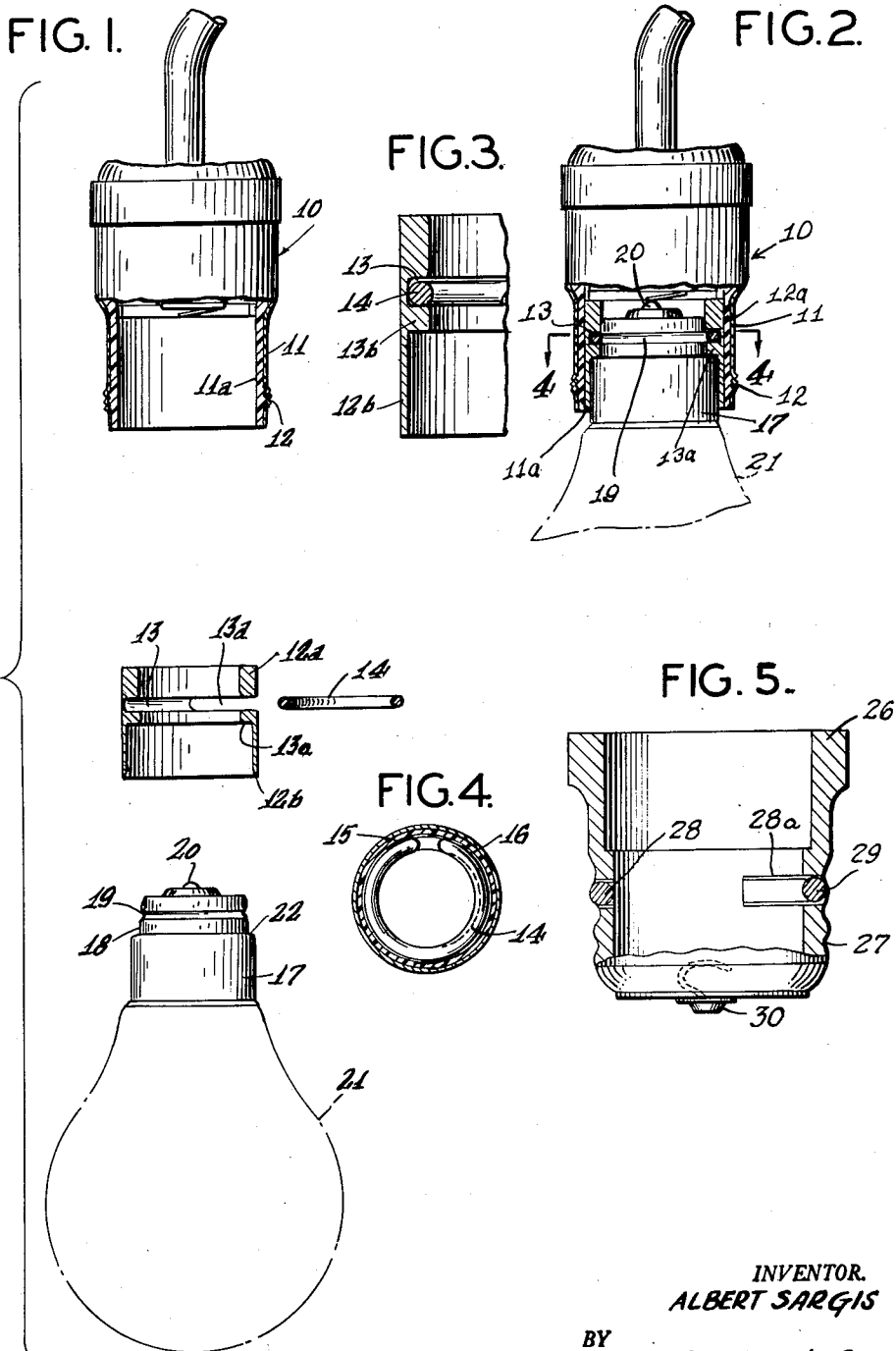
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SNAP-IN ELECTRIC PLUG AND SOCKET

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1

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SNAP-IN ELECTRIC PLUG AND SOCKET

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1 Claim. (Cl. 339—75)

This invention relates to separable electrical connectors, and more particularly to an unthreaded plug and socket which may be connected and disconnected by a straight line movement and snap action.

The present invention is especially adapted for use with electrical connectors of the plug and socket type for effecting the connection of lamp bulbs or other appliances to a source of current.

One object of this invention is to provide an insert member for adapting a socket for the snap action reception of an unthreaded lamp bulb or plug.

A further object is to provide a plug and socket connector which will be simple in construction, inexpensive to manufacture, easy to install and manipulate, compact, ornamental in appearance, and very efficient and durable in use.

With these and other objects in view, there have been illustrated on the accompanying drawings, several forms in which the invention may conveniently be embodied in practice.

In the drawings,

Fig. 1 represents an exploded view, partly in section, of an electric casing, in which a special form of lamp bulb may be detachably inserted.

Fig. 2 is an assembled view of the same, also shown partly in section.

Fig. 3 is a fragmentary longitudinal sectional view, on an enlarged scale, of one side of the insert member, showing the split locking ring located in the groove of said member.

Fig. 4 is a transverse sectional view, taken along the line 4—4 of Fig. 2.

Fig. 5 is a cross-sectional view of an adaptor unit which may be inserted into a screw socket so that it may receive an unthreaded snap-in plug or lamp bulb.

Referring now to the drawings in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 indicates a substantially cylindrical casing having an outer shell 11 and a cardboard lining 11a located therewithin, said shell being provided with the usual ribbed section 12.

Within the casing 10, provision is made of an insert member 12a having a semi-circular interior groove 13 on one side thereof and aligned therewith a semi-circular slot 13a in the other side thereof. The insert is adapted to be retained in the casing 10 by a force fit.

Provision is also made of a resilient split locking ring 14, one end of which is secured permanently within the groove 13, as by means of solder 15, leaving the remaining portion 16 of said ring free to contract when the plug is inserted within the casing 10. The free end 16 of the ring 14 is preferably of smaller radius than the soldered end 15 thereof as shown in Fig. 4.

The numeral 17 indicates a lamp plug having a reduced end 18 within which is a groove 19 which is larger in diameter than the exterior of the split locking ring 14. The lamp plug 17 is provided at one end with a center con-

2

tact 20, and a glass bulb 21 at its other end, as clearly shown in Figs. 1 and 2.

Provision is also made of a stop shoulder 13b on the insert 12a, which is adapted to be engaged by a shoulder 22 provided on the lamp plug 17, when the plug has been inserted into the casing 11 by a straight line movement.

Modified form

In the modified form of the invention shown in Fig. 5, an adaptor 26 is shown comprising a metal screw shell 27 having a semi-circular slotted channel 28 and a semi-circular slot 28a within which is a split locking ring 29, secured by soldering one end thereof to said channel 28. The adaptor 26 is provided with a center end contact 30.

Operation

In operation when the lamp bulb 17 is pushed into the insert member 12a, it will first come into contact with the free end of the split lock ring 14, thus forcing the latter by a straight line movement into the groove 13 of the insert member until the shoulder 22 strikes the shoulder 13b on the insert member. At this time the groove 13 and slot 13a will line up with the groove 19 in the plug 17 whereby the lock ring 14 will snap into the groove 19 and lock the lamp bulb in operating position.

The present invention will permit the use of a new type special lamp bulb having a portion of its glass surface shaded or provided with indicia, in which the twisting of the bulb will permit the shaded area or indicia to be adjusted to any desired location.

While there have been disclosed in this specification several forms in which the invention may be embodied, it is to be understood that these forms are shown for the purpose of illustration only and that the invention is not to be limited to the specific disclosures, but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claim.

Having thus fully described the invention, what is claimed as new and for which it is desired to secure Letters Patent, is:

An adapter for an electrical connection unit comprising a hollow cylindrical member, one side of said member being provided with a semi-circular interior groove, the remainder of said member having a semi-circular slot in alignment with said groove, and a circular resilient split metallic ring of circular cross-section rigidly secured at one end within said groove, the other end of said ring being free to expand and contract within said slot for detachably engaging a plug member having a circular groove shaped to fit said ring, whereby said ring will snap into locked position in said groove when said plug is pushed in a straight line direction into said hollow cylindrical member.

References Cited in the file of this patent

UNITED STATES PATENTS

941,276	Russell	Nov. 23, 1909
1,287,082	Norgate	Dec. 10, 1918
2,022,669	Keefe	Dec. 3, 1935
2,043,499	Vendope	June 9, 1936
2,049,152	Biggs	July 28, 1936
2,273,654	Johnson	Feb. 17, 1942

FOREIGN PATENTS

444,332	Germany	May 19, 1927
517,185	Great Britain	Jan. 23, 1940
2,314,751	Woodward	Mar. 23, 1943