## Sept. 3, 1963

R. F. DE LASHMUTT ELECTRICAL CORD PLUG RETAINER

Filed April 6, 1960



<u>Fig</u>. 2.

Robert F.DeLashmutt INVENTOR.

BY Oliver Olson <u>Ag</u>ent

# **United States Patent Office**

# 3,102,922 Patented Sept. 3, 1963

1

## 3,102,922 ELECTRICAL CORD PLUG RETAINER Robert F. De Lashmutt, 12019 SE. Woodward Place, Filed Apr. 6, 1960, Ser. No. 20,490 1 Claim. (Cl. 174–135)

This invention pertains to cord plug retainers, and relates particularly to an attachment for an electrical socket outlet by which to retain an electrical cord plug against 10 inadvertent release from the socket by pulling upon the cord.

It is a principal object of the present invention to provide an electrical cord plug retainer which is capable of mounting upon a conventional electrical socket outlet by 15 means of the attachment for the outlet cover plate.

Another important object of this invention is the provision of an electrical cord plug retainer which is capable of use with various types of plugs and various sizes of cords.

A further important object of the present invention is to provide an electrical cord plug retainer which is of extremely simplified construction for economical manufacture.

The foregoing and other objects and advantages of 25 this invention will appear from the following detailed description, taken in connection with the accompanying drawing, in which:

FIG. 1 is a view in front elevation of an electrical cord plug retainer embodying the features of the present in- 30 vention, the same being shown in association with a conventional electrical socket outlet;

FIG. 2 is a view in side elevation of the assembly shown in FIG. 1; and

FIG. 3 is an end view as viewed from the top in FIG. 1. 35

The retainer of the present invention is utilized with a conventional electrical socket outlet which, as illustrated in the drawing, includes a pair of spaced outlet sockets 10 and 12. A cover plate 14 is provided for concealing the socket housing and the electrical connections 40 to the sockets, and is provided with spaced openings 16 for exposing the sockets. A central opening 18 in the cover plate between the socket openings 16 registers with a tapped opening in the outlet housing (not shown) for receiving the securing screw 20.

In the preferred embodiment illustrated in the drawing, the retainer of the present invention is formed as a single piece, preferably of synthetic thermosensitive resin material of the thermosetting or thermoplastic types, by conventional molding techniques. The retainer includes a 50 central base portion 22 provided with an opening therethrough for receiving the attaching screw 20. Projecting laterally from opposite sides of the base portion are the resilient arms 24. The inner surface of each arm, i.e. the surface facing the cover plate 14 of the outlet, is 55 spaced outwardly with respect to the plane of the inner surface of the base portion 22 and is contoured to form, in combination with the adjacent surface of the cover plate, one or more pockets which function to receive and retain an electric cord which extends through it. In the 60 embodiment ilustrated, two such pockets are provided on each arm, the inner pocket 26 being smaller than the outer pocket 28. Thus, the inner pocket is proportioned to receive a cord of correspondingly smaller cross section 65 than the outer pocket.

The contour of the inner surface of each arm preferably is such as to provide an inward projection 30, 32 at the outer end of each pocket 26, 28 respectively, to constrict the entrance to each pocket. The resilience of the arm, together with the degree of compresibility of  $^{70}$ the electric cord, enables the cord to pass through the

2 constricted opening and thus be retained securely in the pocket.

It will be understood that the oppositely directed arms are provided for the dual scoket assembly illustrated, one arm being associated with each socket.

In mounting the retainer on the socket outlet, the retaining screw 20 for the cover plate is removed, the retainer is positioned centrally between the spaced sockets 10, 12 with the central opening registering with the openings in the cover plate and socket housing. Assuming the screw to be of sufficient length, it is then inserted through the aligned openings and secured in place. Ordinarily, the spaced sockets project outwardly a slight distance from the surface of the cover plate 14, and thus they serve to anchor the retainer therebetween, preventing rotational displacement of the retainer.

With the retainer installed as described hereinbefore, an electrical cord plug 34 then may be installed in one of the sockets. The cord 36 leading outwardly from the plug is bent toward the retainer and thence inwardly toward the cover plate, where it is pushed laterally inward through the restricted opening of the appropriate pocket for retention therein. Thus, an outward pull on the length of cord projecting outwardly beyond the pocket tends to force the plug more securely into the socket.

It will be apparent to those skilled in the arts that various changes may be made in the structural details described hereinbefore. For example, the number of pockets provided in an arm may be varied from one to any number desired. Additionally, the retainer may be integrated with a cover plate to form a single piece unit. These and other modifications may be made without departing from the spirit of this invention and the scope of the appended claims.

Having now described my invention and the manner in which it may be used, what I claim as new and desire to secure by Letters Patent is:

For use with an electric outlet having a pair of spaced plug sockets and screw retaining means located between said sockets for securing a cover plate to the outlet, an electric cord plug retainer formed as an integral unit of molded synthetic thermosensitive material and comprising a body member having an inner cover plate abutting surface and an opening for receiving a cover plate securing screw therethrough, and an arm extending laterally from each of the lateral sides of the body member, the inner surface of each arm being spaced outwardly from the cover plate abutting surface of the body and contoured to define between said inner surface and a cover plate a plurality of laterally spaced cord receiving pockets which are open at their laterally outward ends, each pocket being progressively larger toward the outer end of the arm for receiving electric cords of different diameters, and an inwardly directed projection on each arm at the outer end of each pocket for constricting the open end of each pocket to a size slightly smaller than the inner dimension thereof for receiving a cord resistively through said constriction for retention in the pocket.

## References Cited in the file of this patent

#### UNITED STATES PATENTS

2

104,554

304,349	Munroe	Sept. 2, 1884
2,084,953	Gibson	June 22, 1937
2,176,405	Lombard	Oct. 17, 1939
2,289,187	Gardner	July 7, 1942
2,559,151	Getzoff	July 3, 1951
2,733,492	Copell	Feb. 7, 1956

## FOREIGN PATENTS

Switzerland	 May	1,	1924