Feb. 4, 1930. J. MARCH ET AL 1,746,159

ELECTRIC CORD SWIVEL CONNECTER

Filed July 18, 1927

Fig. 1.

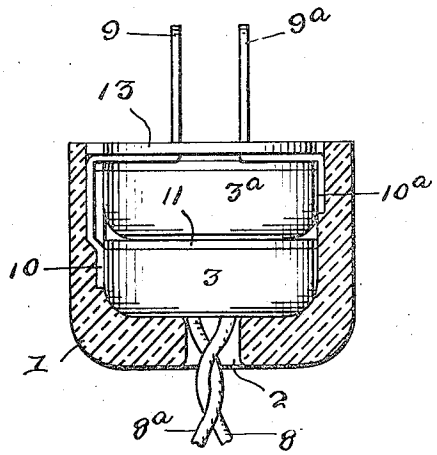


Fig. 2.

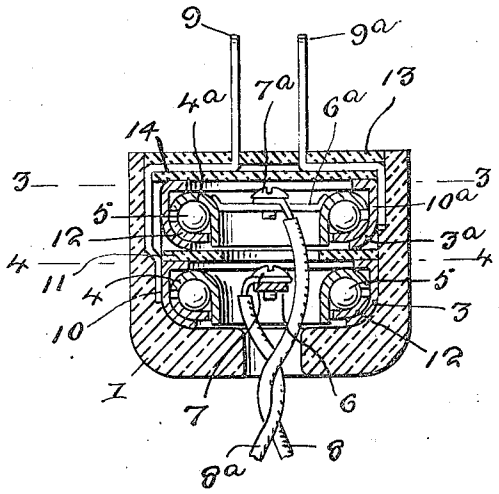


Fig. 3.

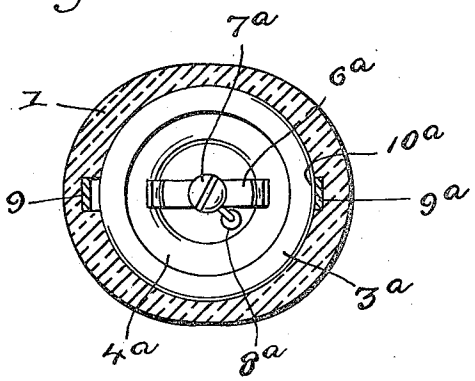
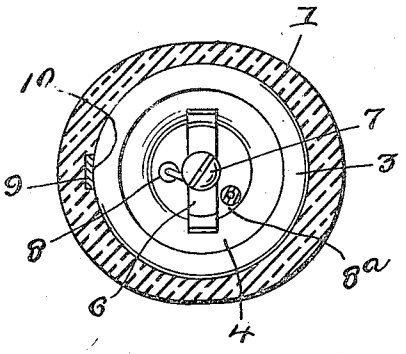


Fig. 4.



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ELECTRIC-CORD SWIVEL CONNECTER

Application filed July 18, 1927. Serial No. 206,707.

This invention relates to swivel connecters for electric wires or cords, and its general object is to provide a connecter that is primarily designed to permit rotary movement of electric cords so as to prevent the latter from twisting, and allows for the efficient use of electrical appliances having connection with the cords.

A further object of the invention is to provide a removable plug head with contact tongues or pins in electrical connection with cord conductors that are secured to independent movable members electrically connected to the tongues or pins, with the result twisting of the conductor cords will be eliminated, and the head can be used with socket plugs or other socket means to accommodate the tongues or pins without fear of the latter casually pulling out of the plugs or means, or damage to the conductor cords caused by twisting, when used with electric appliances such as irons, tools, lamps, utensils and other like articles.

Another object of the invention is to provide an electric cord swivel connecter that is extremely simple in construction, inexpensive to manufacture, easy to apply for use, and is efficient in operation and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing our invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a sectional view taken through the casing and showing the other parts of our connecter in elevation.

Figure 2 is a vertical sectional view taken through the connecter in its entirety.

Figure 3 is a sectional view taken approximately on line 3—3 of Figure 2.

Figure 4 is a sectional view taken approximately on line 4—4 of Figure 2.

Referring to the drawings in detail, the reference numeral 1 indicates a plug head casing formed from insulating material, and while we have illustrated our connecter applied to a plug head, we want it understood that it can be applied to other devices that necessitate electric cords secured thereto without departing from the spirit of the invention. The casing 1 is substantially cup-shape as best shown in Figures 1 and 2, and formed centrally through its closed end is an opening 2 for a purpose which will be presently apparent. Disposed in the casing is a pair of bearing members each of which include outer shells 3 and 3^a, and these shells have formed with one circumferential edge thereof an inturned flange disposed substantially at right angles to the body thereof as best shown in Figure 2, and the opposite circumferential edges of the shells are curved inwardly. Secured in any appropriate manner to the curved portions of the shells are transversely curved race ways 12, and it is to be understood that the shells and their race ways are fixed within the casing 1. Cooperating with the race ways 12 are inner shells 4 and 4^a which as best shown in Figure 2 are provided with curved portions overlying the race ways 12 and cooperating therewith to receive balls 5. The inner shells are provided with straight portions disposed in close proximity to the inner edge of the transversely curved race ways, and by this construction, it will be apparent that the balls are retained in their path of movement and casual removal of the balls will be prevented. The curved portions of the inner shells 4 and 4^a may likewise be termed race ways, as they cooperate with the race ways 12 as above set forth to accommodate the balls 5.

Bridging the inner shells 4 and 4^a and having their opposite ends secured to the curved portions at their juncture with the straight portions are strips 6 and 6^a, and these strips are provided with threaded openings midway their ends to accommodate headed terminal screws 7 and 7^a that secure one of the ends of conductors 8 and 8^a to the bridging strips as best shown in Figure 2. The conductors pass through the opening 2 and have their opposite ends electrically connected with a suitable electrical connecter, or may be di-

rectly connected with an electric appliance as will be apparent.

Secured to the outer shell 3 and extending therefrom in a manner to follow the shape of the inner wall of the casing 1, thence being bent at right angles upon itself and further bent accordingly is one of the members which provide a tongue or pin 9 which cooperates with a companion pin or tongue 9^a disposed in spaced relation with the tongue or pin 9 as shown in Figure 2 and the member providing the tongue or pin 9^a is provided with a right angle portion arranged within the casing, with one of the arms of the right angle portion fixed to the outer shell 3^a. The tongue or pin members are secured to the outer shells 3 and 3^a in a manner to be diametrically opposed with respect to each other as indicated by the reference numerals 10 and 10^a respectively.

The bearing members are spaced through the medium of an insulating washer 11, and the casing is provided with a cover 13 of insulating material which has disposed therein slots to accommodate the tongues or pins 9 and 9^a that pass therethrough whereby they can be inserted in the sockets of a socket plug or the like and disposed between the cover 13 and the shell 3^a is a disk 14 of insulating material.

From the above description and disclosure of the drawings, it will be obvious that we have provided an electric cord swivel connecter that prevents the cords from becoming twisted when the device is in use with an electrical appliance, with the result efficient use of the latter will be possible as well as preventing damage to the cords.

It is thought from the foregoing description that the advantages and novel features of our invention will be readily apparent.

We desire it to be understood that we may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What we claim is:

An electric cord connecter comprising a casing having a closed end provided with an opening, bearing members arranged in said casing and each including an outer shell having one of its circumferential edges bent at right angles and its opposite edge curved, a race way for each curved edge and secured thereto, inner shells having curved portions cooperating with the race ways, balls between the curved portions and race ways, straight portions included in the inner shells for retaining the balls between the curved portions and race ways, strips bridging the bearing members and having their ends secured to the inner shells, means carried by the strips for securing conductors thereto, said conductors being adapted to pass through the opening, spaced parallel contact tongues included in said members, one of said tongues being secured to one outer shell while the other is secured to the other outer shell, said outer shells being secured in said casing, insulating means for separating the bearing members, a cover for said casing having slots to accommodate the tongues, and insulating material between the cover and the adjacent outer shell.

In testimony whereof we affix our signatures.

JAMES MARCH.
JOHN DAILEY.