March 6, 1928. 1,661,495

P. M. O'NEILL

SWIVEL CONNECTION

Filed Aug. 4, 1925

Fig. 3.

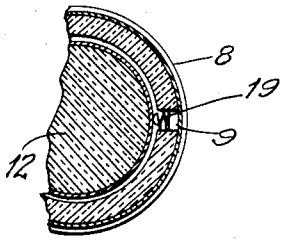


Fig. 1.

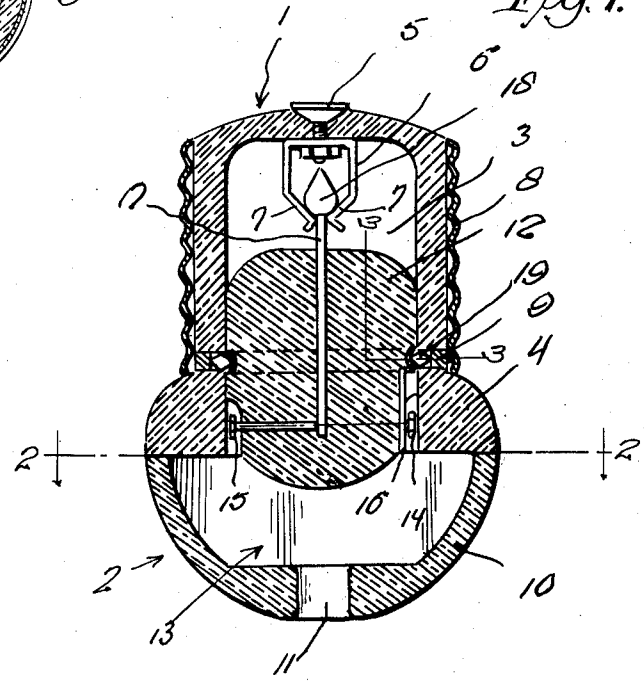
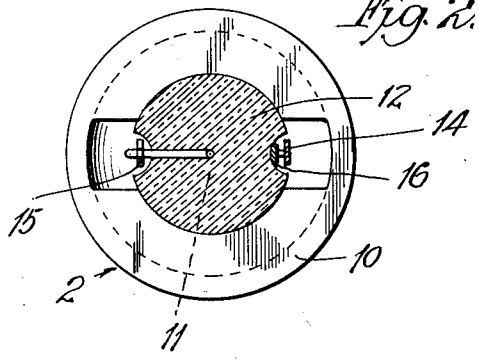


Fig. 2.



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UNITED STATES PATENT OFFICE.

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SWIVEL CONNECTION.

Application filed August 4, 1925. Serial No. 48,095.

This invention relates to an electrical contrivance which may be conveniently designated as a swivel connecter for electric current supply wires.

The principal object is to provide a structure for preventing twisting and entangling of cords connected to electrical appliances such as electric irons and the like.

Briefly, the invention comprises a hollow plug adapted to be tapped into a wall socket or other source of supply, the same being provided with a threaded current conducting shell and a central contact, and there being a rotatable body in association with this plug, the body including novel means for completing the circuit from the contacts of the plug to the electric cords leading to the appliance, the bared ends of said cords being connected to binding posts carried by said rotatable body.

In the accompanying drawings:—

Fig. 1 is a sectional and elevational view of a swivel connecter constructed in accordance with the present invention showing the two separable parts connected together as they appear when in use.

Fig. 2 is a horizontal section taken approximately on the plane of the line 2—2 of Fig. 1.

Fig. 3 is a similar section as indicated by the line 3—3.

As before stated, in the brief description, the improved contrivance is composed mainly of a plug 1 and a rotatable body 2 which are adapted to be separated to permit connection and disconnection of the ends of the cords with binding posts carried by the body.

The plug 1 comprises a body of bakelite or other insulation material which is recessed as at 3. At the open end of the plug is an annular flange 4. Connected to the center of the rounded and closed end of this plug is a central contact 5 having a screw threaded stem extending into the recess 3 and provided with a retaining nut. A substantially U-shaped clamp 6 is connected with this screw threaded stem and held in place by the nut. The free end portions of the arms of the clamp are directed inwardly toward each other as indicated at 7 and the extremities are bent outwardly and away from each other. Surrounding this cylindrical plug is a threaded or corrugated shell 8 of conductor material. Adjacent the flanged inner end of the plug, the wall is provided with a diametrically opposite arcuate slot for accommodation of correspondingly shaped metal ring section 9. Although I have not shown it plainly in the drawing, it is to be understood that these ring sections are soldered or otherwise connected with the shell 8 for transmitting current to the latter.

The body 2 comprises a substantially semi-spherical portion 10 having a flattened bottom provided with an opening 11. This portion 10 carries an integral projection 12 adapted to fit snugly into the recess 3 of support 1. The portion 10 is provided with an elongated pocket 13 with which the hole 11 has communication. The ends of this pocket are rounded somewhat, while the opposite longitudinal walls are flat. The pocket is adapted to accommodate a knot which is formed in the electric cord adapted to pass therethrough and through said hole 11.

Over the open ends of the pocket, the central projection is notched out to accommodate a pair of binding posts 14 and 15. The post 14 is connected to a strip 16 and this strip is in electrical engagement with a central channel-shaped ring on the projection 12. The binding post 15 has electrical connection with a central stem 17 extending through and beyond the projection 12. On the free end of this stem is a pear-shaped head 18 which is adapted to snap between the jaws of the clamp 6.

It is yet to be pointed out that a substantially diamond-shaped member 19 is interposed between the ring on the projection 12 and the ring section 9 before described.

In practice, the free ends of the cords from the electric iron or other appliance are passed through the hole 11 in the body 2 and are tied into a knot, the knot being located in the pocket 13. At this time, the body 2 is disconnected from the plug 1. This leaves the opposite ends of the pocket open so that the scrapped ends of the cords may be connected with the binding posts 14 and 15. Now the body may be replaced by fitting the projection 12 into the recess 3 of the plug 1. When this is done, the flange 4 of the inner end of the plug covers the open end of the pocket 13. Moreover the flange serves as a stop to limit the insertion of the pro-

jection and to determine when the head 18 of the stem 17 has snapped between the jaws of the clamp.

This clamp and head provide a good electrical connection for supplying current to the central contacts 5 of the plug. The current to this contact is also transmitted through the stem 17 and the binding post 15. The current on the other side goes through the binding post 14, strip 16, and ring on the center of the projection 12, together with the diamond-shaped members 19 and the ring sections 9 to the shell 8 with these ring sections are connected. Thus, we have a continuous supply of current and the body and wires are allowed to turn with respect to the socket, whereby to prevent twisting and entangling of the cords.

Undoubtedly, by carefully considering the description in connection with the drawings, persons familiar with the contrivances of this kind will be able to obtain a clear understanding of the invention. Therefore, a more lengthy description is thought unnecessary.

While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming the field of the invention claimed may be resorted to if desired.

Having thus described my invention, what I claim as new is:—

A swivel connector comprising a socketed plug provided at its open end with an outstanding flange of circular form, provided with a central contact at its closed end and surrounded by an external electricity conducting shell, a U-shaped clamp mounted in said socket and connected with said central contact, a body of semi-spherical configuration provided with a central extension fitting snugly in its bottom into the socket of said plug, said body being cored out to provide an elongated pocket, said body also having an opening in communication with said pocket for passage of electricity conducting cords, binding posts carried by said extension, and accessible through open end portions of said pocket, means associated with said binding posts whereby current is transmitted to said shell and returned to said central contact and clamp, said means including an electricity conducting stem embedded in said projection and having a head on its end detachably engaged with the arms of said clamp and also including means interposed between the wall of said socket and said extension.

In testimony whereof I affix my signature.

PHILLIP M. O'NEILL.