R. H. MILLER.

WIRE CONNECTOR.

APPLICATION FILED SEPT. 4, 1914.

1,165,273. Patented Dec. 21, 1915.

Fig. 1.

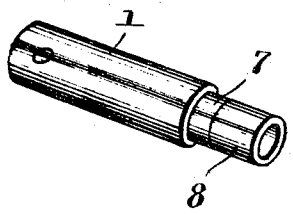
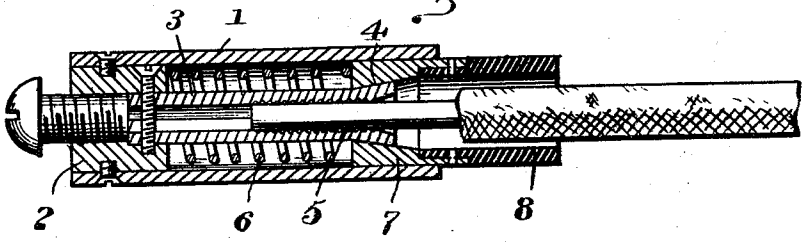


Fig. 2.



Witnesses

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WIRE-CONNECTOR.

1,165,273. Specification of Letters Patent. Patented Dec. 21, 1915.

Application filed September 4, 1914. Serial No. 860,231.

To all whom it may concern:

Be it known that I, ROBERT H. MILLER, a citizen of the United States, residing at Lansing, in the county of Ingham and State of Michigan, have invented new and useful Improvements in Wire-Connectors, of which the following is a specification.

This invention relates to wire connectors and the object of the invention is to provide a simple and efficient device for connecting the terminals of electric circuit wires and to avoid the use of binding posts, nuts and screws or any like devices which employ exposed binding elements.

Further objects of the invention will appear as the following description is read in connection with the accompanying drawing, which forms a part of this application, and in which:—

Figure 1 is a perspective view showing the preferred form of connector. Fig. 2 is a longitudinal sectional view taken therethrough and drawn on an enlarged scale.

Referring to the drawing, and more particularly to Figs. 1 and 2, 1 indicates a metallic sleeve which has secured in one end thereof a centrally apertured head 2 of conducting material, the aperture of which is threaded to receive a binding screw of any suitable character for making connection with a terminal of a conductor. Secured to this head is a pair of semi-cylindrical members 3 which have their outer ends enlarged on a taper, as indicated at 4, and their inner sides roughened, corrugated or toothed in any suitable manner, as shown at 5, to provide a gripping surface. These members when brought together form in effect a split clutch sleeve which is surrounded by a spiral spring 6 having one end abutting the head 2 and at its opposite end abutting a metallic sleeve 7 whose bore is tapered to correspond with the taper 4 of the split sleeve. To the outer end of this collar is secured an insulating button 8 whose central bore is of the same size with the bore in the sleeve so as to permit the passage of the insulated end of the conductor, the bare terminal of which is engaged between the members 3 which act in the capacity of clamping jaws when acted upon by the inclined inner walls of the sleeve 7 which coacts with the inclined ends of the members 3. By depressing the button the ends of the split sleeve will be exposed so that the bare terminal of the conductor may be inserted therein. Release of the button will cause clamping of the jaws upon the terminal and as all parts with the exception of the button are of metal a complete connection from the binding post or screw will be had with the conductor.

What is claimed is:—

1. A connector for a pair of electric wires comprising a metallic sleeve, a set screw for connecting the same to the terminal of one of the wires, spring actuated gripping jaws electrically associated with the sleeve and adapted to grip the terminal of the remaining of said wires, said jaws contacting with said set screw and an insulating button for releasing the jaws, said button encircling the end portion of one of the wires.

2. A connector for a pair of electric wires comprising a metallic sleeve, a set screw for connecting the same to one terminal of one of the wires, spring actuated gripping jaws electrically associated with said sleeve and adapted to grip a terminal of the remaining wire, said jaws contacting with said set screw and a hollow insulating button provided with an inclined surface for forcing said jaws into tight engagement with the wire terminals.

3. A connector for a pair of electric wires comprising a sleeve, a set screw for connecting the sleeve to the terminal of one of said wires, a pair of jaws arranged within and concentric with the sleeve, said jaws contacting with said set screw, a spring surrounding said jaw, a collar slidably mounted in the sleeve and adapted to operate said jaw through the expansive action of said spring, a head mounted within said sleeve and secured to said jaws, and a screw threaded into said head and passing through said jaws.

4. An electric wire connector comprising a metallic sleeve, a head detachably mounted in an end portion of said sleeve, parallel jaws having a pair of adjacent extremities seated in said head, a screw passing through said head in a transverse direction and through the mentioned extremities of said jaws, a collar slidably mounted in the remaining end portion of said sleeve and pro-

vided with a tapered bore, the wall of which coöperates with said jaws for forcing the latter toward each other, a spring encircling said jaws and abutting said head and collar, an annular button of insulating material secured to said collar and adapted to encircle the wire, and a binding screw passing through said head in a longitudinal direction and tightly binding against the extremities of said jaws within the head.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT H. MILLER.

Witnesses:
GEO. A. HAFER,
BENJ. A. KINYON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."