H. S. SINES.

ELECTRICAL CONNECTOR.

APPLICATION FILED JAN. 28, 1915.

1,198,074. Patented Sept. 12, 1916.

Fig. 1.

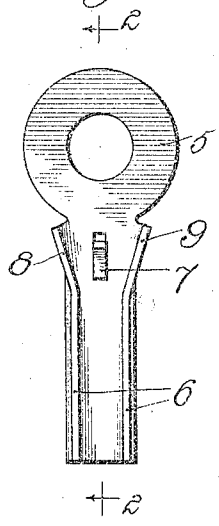


Fig. 2.

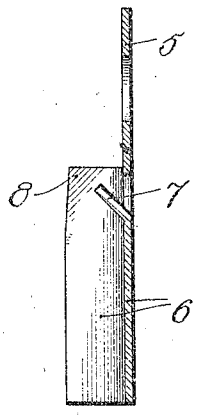


Fig. 5.

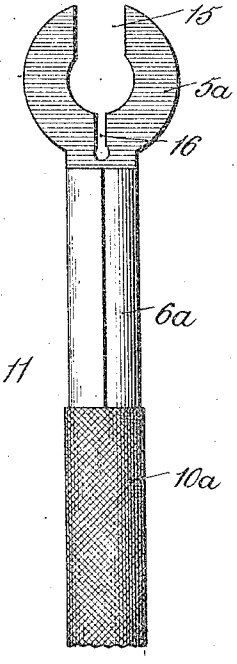


Fig. 3.

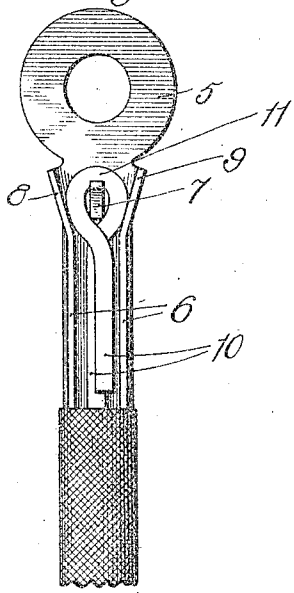
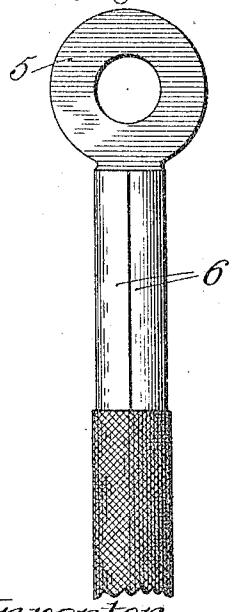


Fig. 4.



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UNITED STATES PATENT OFFICE.

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ELECTRICAL CONNECTOR.

1,198,074. Specification of Letters Patent. Patented Sept. 12, 1916.

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To all whom it may concern:

Be it known that I, HAROLD S. SINES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electrical Connectors, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to electrical connectors, and more particularly to devices adapted to serve as the terminals of electric conducting wires as connected with binding posts or bolts of electrical generator or translating devices.

My invention relates more specifically to that class or kind of electrical connectors which are adapted to embrace or surround the ends of conducting wires, the insulation surrounding the wires, if such is carried by the same, being stripped so as to allow the connector to engage the wire. It has been common in the past to secure the connector to the wire by means of solder, or other complicated and expensive methods.

The object of my invention is to provide means in connection with a connector of this class which may be cheaply and effectively connected to a conductor wire without the solder or expensive means used in connection with the prior devices.

In general the device of my invention comprises a cylindrical portion adapted to embrace the wire to which it is to be connected. A tongue is punched from the wall of this cylindrical portion and extends inwardly through a loop in the conductor wire which is thus formed so that removal of said wire is prevented. The usual form of ring is provided at the upper end of the cylindrical portion so that connection may be easily made to binding posts, etc.

My invention will be more clearly understood by reference to the accompanying drawings in which:

Figure 1 illustrates in elevation the connector of my invention. Fig. 2 is a longitudinal cross-sectional view of the same, this view being taken along the line 2—2 of Fig. 1 and looking in the direction indicated by the arrows. Fig. 3 is an elevational view of the electrical connector showing the conductor wire looped within the same, the connector in this figure being shown in its non-closed position. Fig. 4 is an elevational view of the connector and conductor wire shown in connected relation, the longitudinal portion of the connector being closed so as to entirely inclose the conductor wire, and Fig. 5 is an elevational view of a connector provided with a modified form of terminal piece.

Similar reference characters refer to similar parts throughout the several views.

The connector of my invention is preferably made of brass or copper, and comprises a ring portion 5 and a cylindrical portion 6. As clearly shown in Fig. 1, the cylindrical portion 6 is normally open so as to admit the conductor wire. Stamped from material in the back of the connector is a tongue 7 which extends upwardly and inwardly in an oblique direction, as most clearly shown in Fig. 2. The upper end of the cylinder 6 is flared outwardly at 8 and 9 so as to accommodate the loop of the conductor wire as will be presently described.

The method of connecting the device of my invention to a conductor wire is as follows: The conductor wire 10 is stripped of insulation, as illustrated in Fig. 3. This conductor is shown as being solid in this figure but it will readily be understood that a conductor composed of strands may be used equally as well. After the insulation has been removed from the end of the conductor 10 the wire is inserted into the cylindrical portion 6 and formed into a loop at 11 between the flared portions 8 and 9 around the upwardly extending tongue 7, and thence down in the cylinder 6, the edges of the cylinder 6 being then pressed inwardly until they assume the position indicated in Fig. 4. It will readily be seen that the conductor wire 10 will then be tightly held against removal due to the engagement of its loop with the tongue 7.

In the modification illustrated in Fig. 5 the split cylinder is shown at 6^a, the conductor at 10^a, and the terminal piece at 5^a. This terminal piece is cut away at 15 so that the terminal may be inserted around the stud of the binding post without removing the nuts usually carried thereby. The terminal piece may be provided with a slit 16 allowing the arms of the terminal to tightly engage the stud of the binding post.

It will readily be seen that any form of terminal piece may be used in conjunction

with the split cylinder without departing from the spirit and scope of the appended claim.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

An electrical connector comprising a sheet of material having a portion of its length formed into a split tube and the remaining portion into a terminal piece and containing within the tubular portion a tongue formed of the sheet of material arranged to hold a conductor, said tubular portion being arranged to envelop the tongue and the portion of the conductor around the tongue to securely hold the conductor in place.

In witness whereof, I hereunto subscribe my name this 25th day of January, A. D. 1915.

HAROLD S. SINES.

Witnesses:
A. G. McCaleb,
Robert F. Bracke.