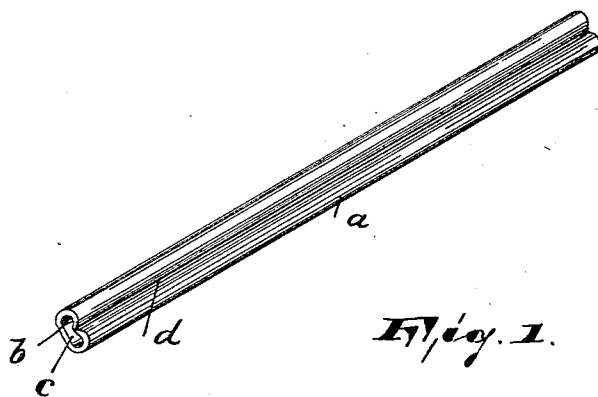


(No Model.)

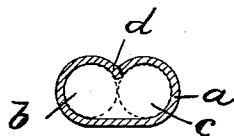
C. H. McINTIRE.  
WIRE CONNECTOR.

No. 557,690.

Patented Apr. 7, 1896.



*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

WITNESSES:

INVENTOR :

*Nuncan M. Robertson.*  
*Benjamin Carley*

*Charles H. McIntire*

BY

*Partners & Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

CHARLES H. MCINTIRE, OF NEWARK, NEW JERSEY.

## WIRE-CONNECTOR.

SPECIFICATION forming part of Letters Patent No. 557,690, dated April 7, 1896.

Application filed February 15, 1896; Serial No. 579,444. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. MCINTIRE, a citizen of the United States, residing in Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Wire-Connectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a connector for telephone or telegraph wires of simple and cheap construction, and, further, to secure a more perfect contact and to greatly reduce the cost of manufacture.

The invention consists in the improved wire-connector formed with a depression extending longitudinally through the entire length of the tube and arranged and combined substantially as hereinafter described and finally embodied in the claims.

With reference to the accompanying drawings, Figure 1 is a side elevation of my improved coupling; Fig. 2, an enlarged sectional view of the same, and Fig. 3 a side elevation of a completed joint.

In said drawings, *a* represents a tube formed by a metallic strip, the edges of which are bent inwardly and are soldered or welded together, and thus form in said tube a depression *d*, extending longitudinally through its entire length. The tube is thus divided into two connecting channels *b* and *c*, adapted to guide and receive from opposite ends the wires *e* and *f*, respectively.

The longer internal diameter of the tube *a* is approximately equal to the combined diameter of the wires to be jointed, while the internal radius of each channel is approximately equal to the radius of the wire to be inserted. The depression *d* is of such shape as to conform to the shape of the wires and to thus increase the contact-surface with the same without interfering with the bearing-surface between the two wires.

In practice the ends of the wires to be jointed are inserted from opposite directions into their respective channels and are then

twisted together with the tubes substantially into the shape as shown in Fig. 3.

It is essential in a wire joint to have a large bearing-surface with the wires to be united, and also to have a bearing-surface between the two wires within the joint and extending through its entire length. Heretofore joints have been made which consisted of two tubes conforming to the shape and size of the wires, and which were soldered or otherwise united together, as in the United States Letters Patent No. 347,625, or which consisted of an oval seamless tube with or without a longitudinal slot, as in the United States Letters Patent Nos. 451,933 and 541,998, or of a metal strip bent into a double tube, substantially S-shaped in cross-section, as in United States Patent No. 535,592. Especially the coupling of Patent No. 451,933 is objectionable, not only on account of the great expense of manufacture, but also that the ends of the wires when inserted from opposite directions often meet in said joint and cannot pass each other, as there are no provisions made to guide said wires while being inserted.

In the coupling or joint of Patents No. 347,625 and No. 535,592 the wires within the joint are separated and thus have no bearing-surface between themselves.

My present joint overcomes all these objections. As it is made of a strip of metal soldered or welded at its edges, and as it is provided with a longitudinally-arranged depression, the said bearing-surface is increased without interfering with the bearing-surface between the two wires. The said depression also serves as guiding means for the wires while being inserted.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A connector for electric wires, consisting of an oval metal tube, having the longer internal diameter approximately equal to the combined diameter of the wire to be jointed, and provided at one of its flat sides with a longitudinally-extending depression dividing said tube into two connecting channels, adapted to bear on and surround the greater part of the surface of the wires without interfering with the bearing-surface between

the said wires within the connector, said tube being adapted to be twisted together with the said inserted wires, substantially as described.

- 5 2. A connector for electric wires, consisting of a metal strip bent into the shape of an oval tube, and having its edges soldered or welded together and bent inwardly to form a depression, dividing said tube into two connecting  
10 channels adapted to bear on and surround the greater part of the surface of the inserted wires without interfering with the bearing-

surface between the said wires within the connector, said tube being adapted to be twisted together with said wires, substantially as shown and described. 15

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of February, 1896.

CHARLES H. MCINTIRE.

Witnesses:

ALFRED GARTNER,  
CLARA E. DUNN.