

(No Model.)

I. SHULTES.
ELECTRIC CONDUCTOR WIRE CONNECTOR.

No. 592,025.

Patented Oct. 19, 1897.

Fig. 1.

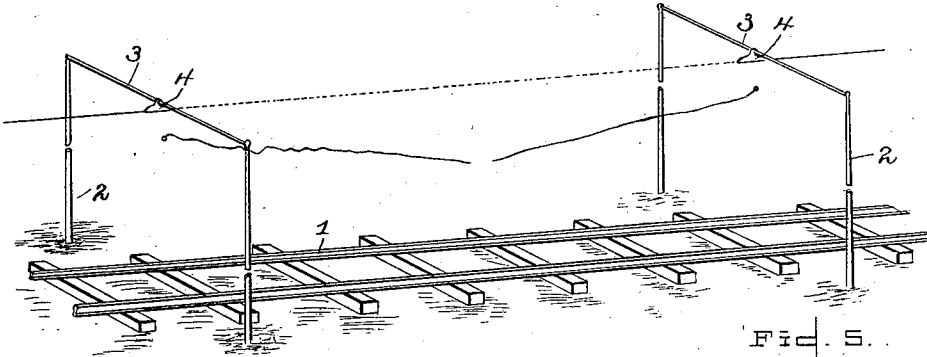


Fig. 5.

Fig. 2.

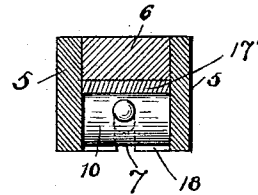
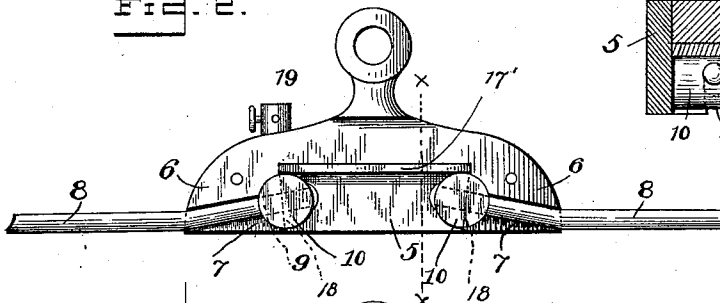


Fig. 3.

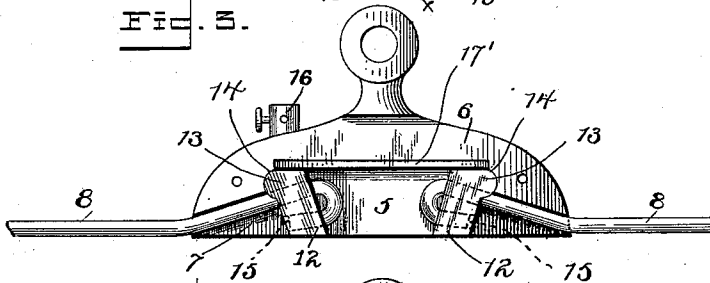
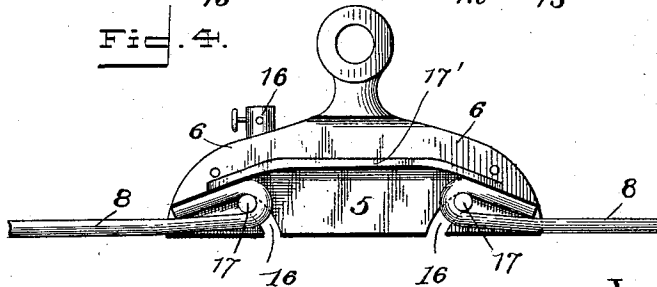


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

ISAAC SHULTES, OF MARTIN, MICHIGAN.

ELECTRIC-CONDUCTOR-WIRE CONNECTOR.

SPECIFICATION forming part of Letters Patent No. 592,025, dated October 19, 1897.

Application filed April 2, 1897. Serial No. 630,397. (No model.)

To all whom it may concern:

Be it known that I, ISAAC SHULTES, a citizen of the United States, residing at Martin, in the county of Allegan and State of Michigan, have invented certain new and useful Improvements in Electric-Conductor-Wire Connectors; and I do 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.

My invention relates to a connector for electric wires, and the object of the invention is to provide a device of this character which will, should one of the wires break, allow the section of wire to disengage from the connector and fall dead to the ground, so as to be perfectly harmless and not endanger life.

With this object in view the invention consists of certain features of construction and combination of parts which will be hereinafter fully set forth and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a section of a track, illustrating the application of my invention to an overhead electric-railway system, showing in dotted lines one whole section of the conductor-wire supported by the connection and in full lines the said section, when broken, in the act of falling from the connection. Fig. 2 is a side view of the connector with one of the side plates removed, showing one form of device for fastening the ends of the conductor-wire to the connector. Fig. 3 is a similar view showing another form of fastening device. Fig. 4 is a similar view showing still another form of fastening device, and Fig. 5 is a cross-sectional view.

While it is evident that this connector may be used for connecting the wires of many different kinds of electric systems, I will describe it in connection with an overhead railway system, but do not wish to be confined to its use in that connection.

In the drawings, 1 denotes a line of track; 2, the trolley-poles; 3, the spans, and 4 the conductor-connector. The connector consists of two side plates 5, between which is secured the wire-supporting block 6, the lower edges of which are formed with inclined wedging-grooves 7, adapted to receive the intermediate ends of two sections of conductor-wires 8.

In the construction shown in Fig. 2 I secure the ends of the wires in the grooves of the block by passing them through holes 9, formed in wedge-pieces 10, and upsetting the ends, and when said wires are drawn taut they will be securely held in position; but should they break they will drop to the ground and be entirely out of electrical connection with the remaining wires.

In Fig. 3 I have shown another means for fastening the wires to the connector, and this means consists of a wedge-piece 12, having a rounded shoulder 13, adapted to fit in a corresponding socket or recess 14, formed in the inner edge of the block, and provided with two transverse holes 15, through one of which the end of the wire is passed, said wire being bent back upon itself and its extremity passed through the other hole. Should the wire break, the recoil of the same would be sufficient to throw the shoulder of the block out of engagement with the socket or recess and allow the broken wire to fall to the ground.

In Fig. 4 I have formed the side plates of the connector at its ends with two upwardly and oppositely curved slots 16, which are adapted to receive cross wedging-pieces 17, to which the ends of the conductor-wire are attached. It is evident that when the wires break the wedging-pieces will freely slide out of the grooves and allow the wires to drop to the ground.

In each of these forms of device I provide a conductor plate or strip 17', which spans the space between the meeting ends of each conductor-wire section and establishes electrical contact between said ends. If desired, I may equip one or more of the connectors with a feed-wire binding-screw 19.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of the invention will be readily understood without requiring further explanation.

By the employment of the device the expense in hanging wires is materially lessened, the danger to life and property on account of the breaking of a wire is entirely overcome, and the facility for repairing greatly increased, for when one wire has become broken all that is necessary is to replace it with another section of the same length.

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

1. The herein-described wire-connector
5 comprising the side pieces 5 5, the block 6, having an eye at its upper end for connection to a rod or span, and the wedging-grooves in its under face, in combination with wedge-pieces to which the ends of the wires are connected,
10 said wedge-pieces held within the grooves in the block by the strain or pull on the wires, and permitted to drop out of the grooves when the wire breaks, substantially as described.

2. A wire-connector consisting of the side pieces 5 5, the block 6 provided with the 15 grooves in its under face, the plate 17' spanning the space between the grooves, the wedge-pieces in the grooves and the wires connected thereto, substantially as described.

In testimony whereof I hereunto affix my 20 signature in presence of two witnesses.

ISAAC SHULTES.

Witnesses:

MALCOLM G. SWAN,
GEO. B. NICHOLS, Jr.