

J. H. LOCKWOOD.
 CONNECTION FOR ELECTRIC CONDUCTORS.
 APPLICATION FILED JAN. 29, 1917.

1,251,983.

Patented Jan. 1, 1918.

Fig. 1



Fig. 2

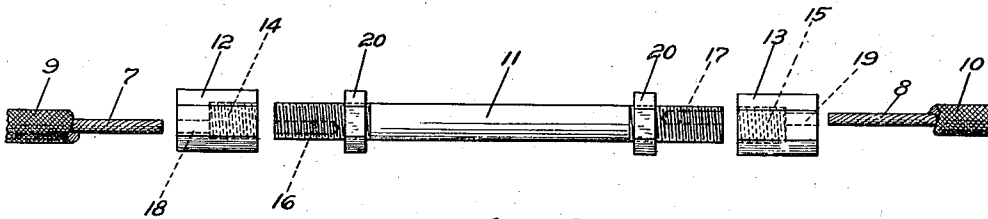


Fig. 3

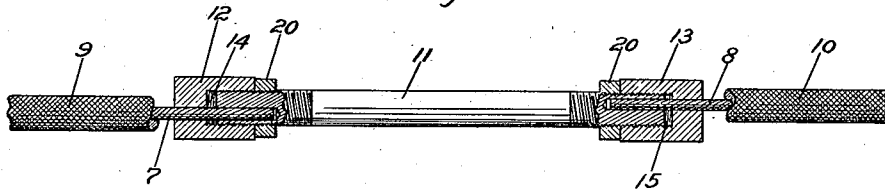


Fig. 4

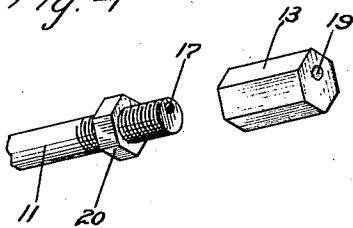
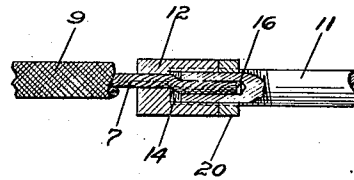
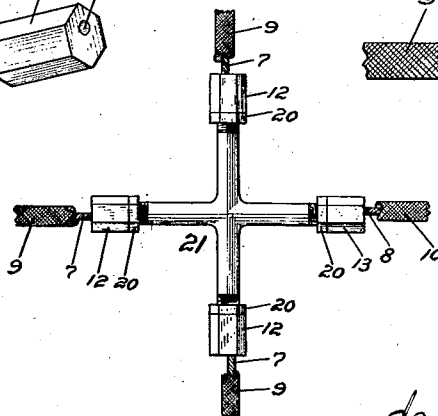


Fig. 5



WITNESS

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CONNECTION FOR ELECTRIC CONDUCTORS.

1,251,983.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES H. LOCKWOOD, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented an Improvement in Connections for Electric Conductors, of which the following is a specification.

This invention relates to connectors for wires and cables, with more particular reference to devices for coupling the meeting ends of electric conductors, such as telegraph, telephone, electric light and power wires. The invention has for its principal object the provision of a connecting or coupling device which is simple in construction, easily manipulated in coupling and uncoupling the wire terminals, and thoroughly dependable in use not only for the purpose of securely gripping the wire ends and holding the same against accidental disengagement, but also for the purpose of minimizing electrical resistance and insuring an unbroken circuit and an uninterrupted flow of current of substantially the same intensity from one to another of the line segments.

My invention will be more readily understood by reference to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side view of a connection for electric conductors embodying my invention, with the parts thereof assembled;

Fig. 2 is a similar view with the parts separated;

Fig. 3 is a central longitudinal section of the device as shown in Fig. 1;

Fig. 4 is a fragmentary perspective view of one end of the device with the parts separated;

Fig. 5 is a fragmentary longitudinal section showing the manner in which the wire is offset in the gripping or engaging operations, and

Fig. 6 is a plan view of a preferred form of the device when designed to be employed as a connection for more than two terminals.

Referring now to the drawings in detail, numerals 7 and 8 refer to wires the ends of which are desired to be electrically connected to each other, which wires I have shown as provided with the usual insulation 9 and 10, respectively.

A practical and convenient connecting or coupling device embodying my invention

comprises a cylindrical rod 11 screw-threaded at each end for the reception of the heads 12 and 13 which are provided with internally and correspondingly threaded bores 14 and 15, respectively, said bores preferably extending a little more than half the distance through said heads. Eccentrically disposed in one end of the rod 11 is a bore 16 and similarly disposed in the other end of said rod is the bore 17 which is preferably oppositely located with respect to the bore 16, these bores being of suitable diameter to receive the ends of the wires which it is desired to connect. The head 14 is provided with a bore 18 and the head 15 with a similar bore 19, these bores being of substantially the same diameter as the bores 16 and 17, each extending through the head from the outer face thereof to the larger threaded bore therein, and being so located as to register with the bore in the end of the rod 11 at a certain point in the rotation of the head on said rod.

It will be apparent that the head 12 may be screwed upon the threaded end of the rod 11 to a relative position where the bore 18 in said head registers with the bore 16 in the end of said rod, whereupon the wire 7 may be passed through the bore 18 and well into the bore 16. When this is done, the head 12 is further turned upon the rod 11, thereby offsetting the wire and firmly clamping the same between the end of the bore 14 and the end of the rod 11, as clearly shown in Fig. 5. As the heads 12 and 13 are identical, as are the ends of the rod 11, the above description of the manner in which the end of the wire 7 is secured in the device will obviously apply to the manner in which the wire 10 is secured.

It will be noted that each of the heads 12 and 13 is of polygonal cross-sectional configuration, whereby the same may be more firmly gripped by a suitable tool in turning the same on the rod 11 to offset and grip the wire.

On each of the threaded extremities of the rod 11 I provide a lock-nut 20 adapted to be firmly screwed against the contiguous head to lock the same against accidental dislodgment when it has been turned to engage the wire. However, when the head has been forcibly turned to offset the wire, it is unlikely to be subjected to any accidental forces of sufficient magnitude and so directed as to rotate the head in a direction

to straighten the wire, the offset in which would ordinarily be sufficient in itself to prevent withdrawal of the wire.

From the foregoing description, it will be apparent that my improved connection for electric conductors is exceedingly simple in construction and therefore cheap in cost, that it is easily applied to and disengaged from the wire ends or terminals, that the latter are firmly engaged thereby in a manner to practically eliminate all possibility of dislodgment under any ordinary conditions, and that an electric connection is established.

In Fig. 6 I have shown my device in the form of a cross 21 and adapted to connect four wire ends or terminals, the connections in this case being precisely the same as in the simpler form of device just described, and it will be apparent that the device of my invention may similarly be employed for the inter-connection of any other number of terminals.

I claim as new and desire to secure by Letters Patent:

1. A connection for electric conductors comprising a body having threaded portions, correspondingly threaded members adapted to be screwed thereon, each of said body portions being provided with an eccentrically located bore and the member thereon having a passage through the same adapted to be brought into register with said bore, whereby a wire terminal may be passed through said passage and into said

bore and engaged therein by turning said member on said body portion to offset the wire therebetween.

2. A connection for electric conductors comprising a rod having threaded extremities, correspondingly threaded heads adapted to be screwed thereon, each of the rod ends being provided with an eccentrically located longitudinal bore and the head thereon having a bore through the same adapted to be brought into register with the bore in said rod, whereby a wire terminal may be passed through the bore in said head and into the bore in said rod and engaged therein by turning said head on said rod to offset the wire therebetween.

3. A connection for electric conductors comprising a rod having threaded extremities, correspondingly threaded heads adapted to be screwed thereon, each of the rod ends being provided with an eccentrically located longitudinal bore and the head thereon having a bore through the same adapted to be brought into register with the bore in said rod, whereby a wire terminal may be passed through the bore in said head and into the bore in said rod and engaged therein by turning said head on said rod to offset the wire therebetween, and lock nuts on the threaded rod portions to engage and lock said heads against relative movement on said rod.

In testimony whereof I affix my signature.

JAMES H. LOCKWOOD.