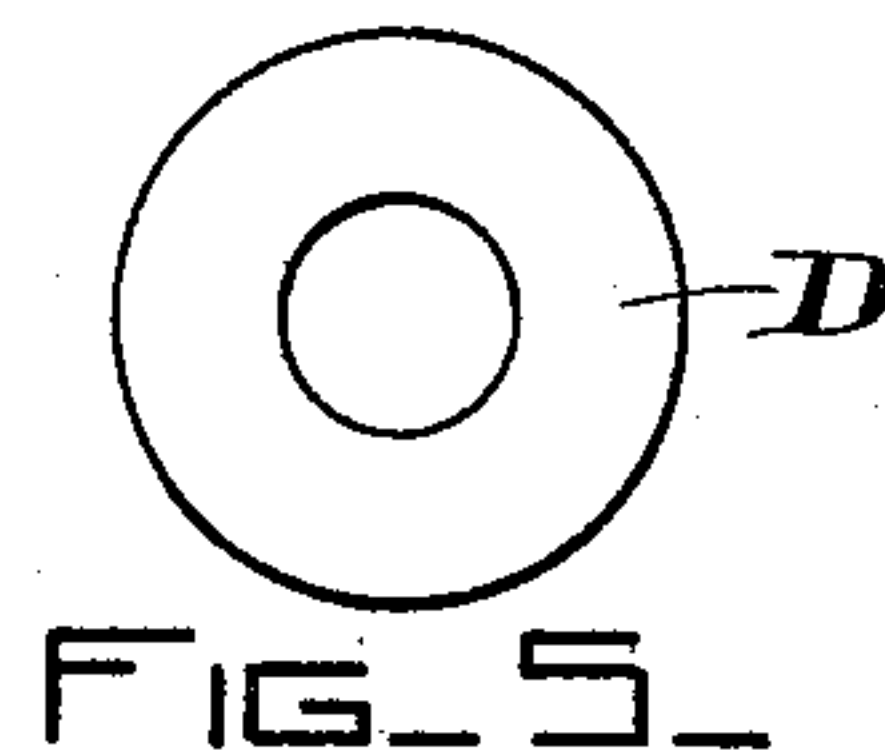
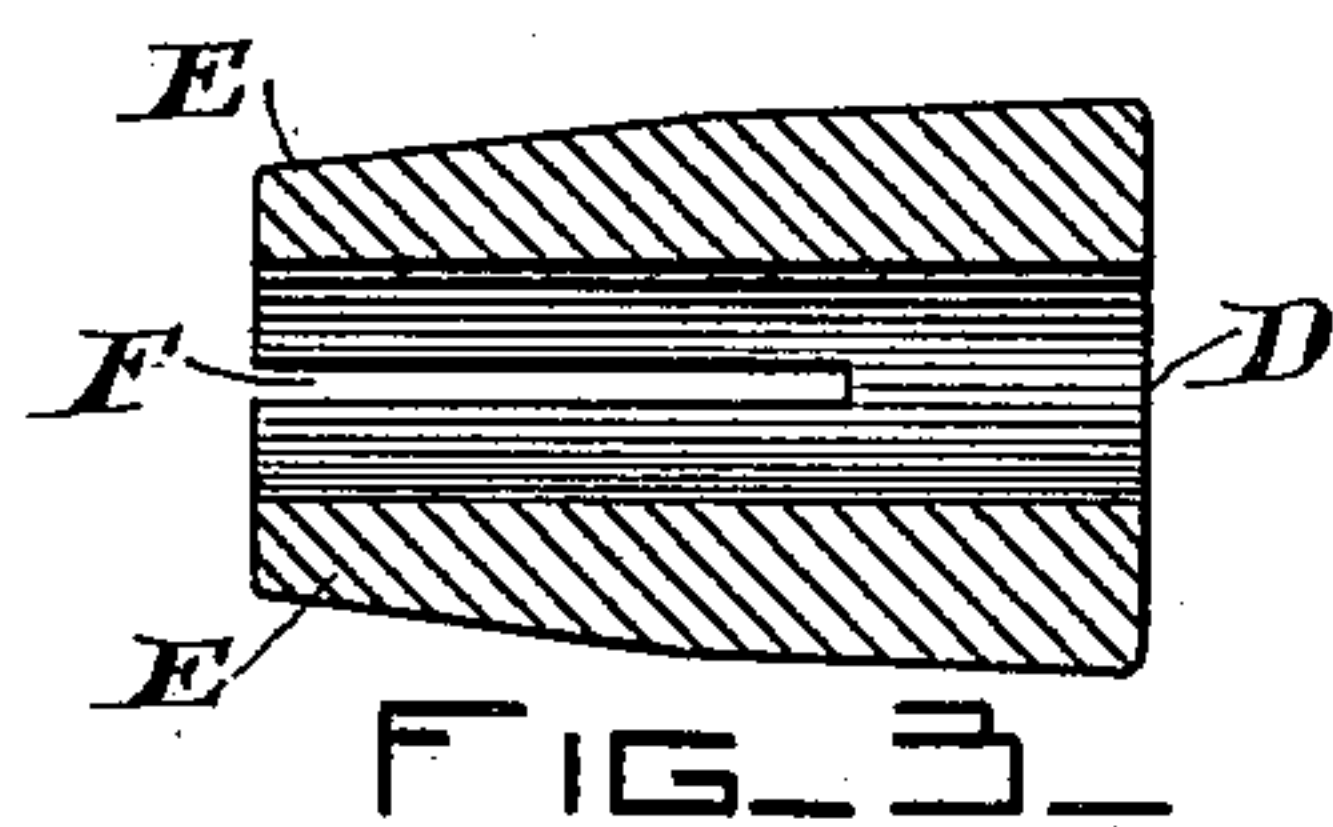
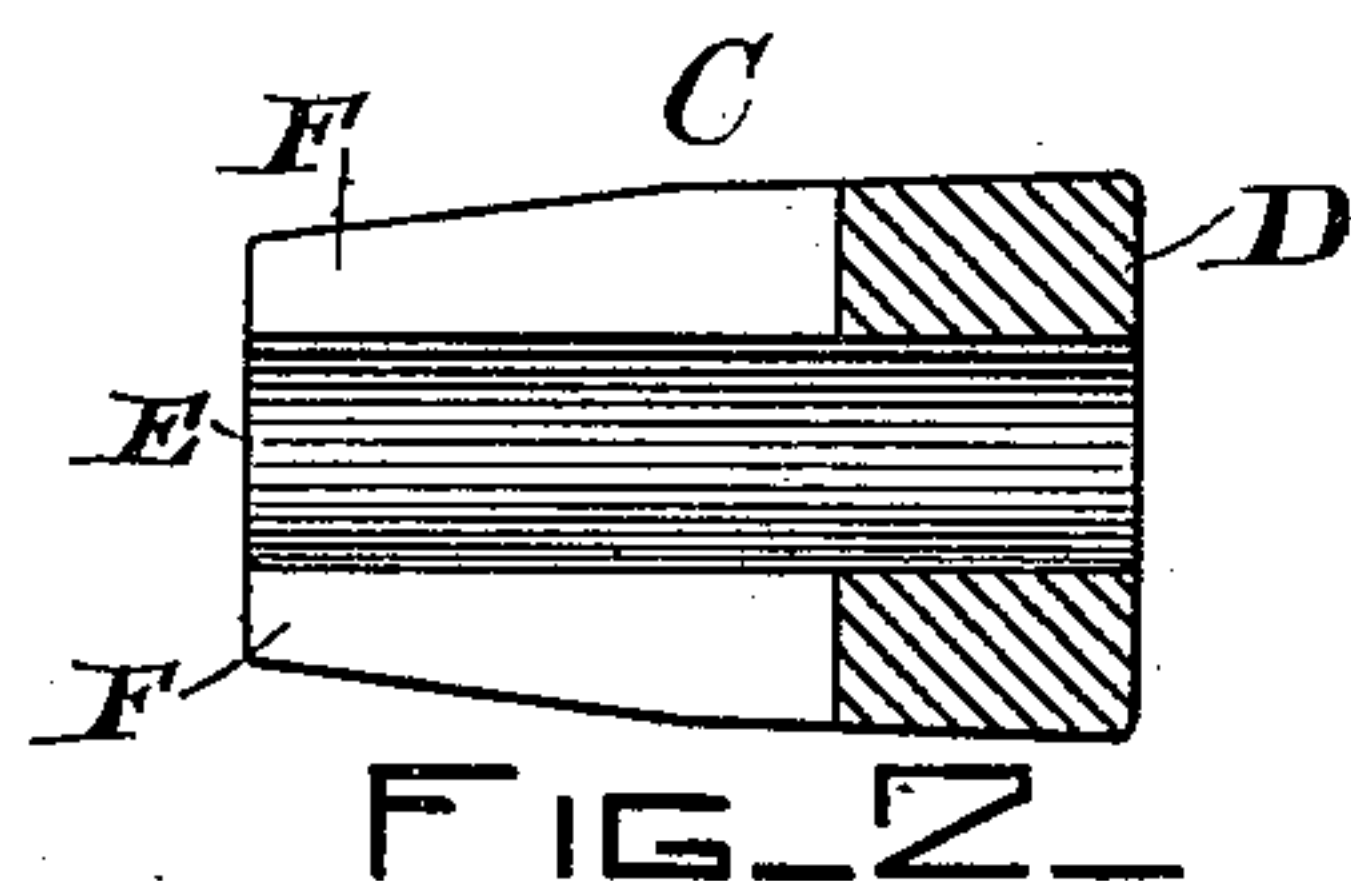
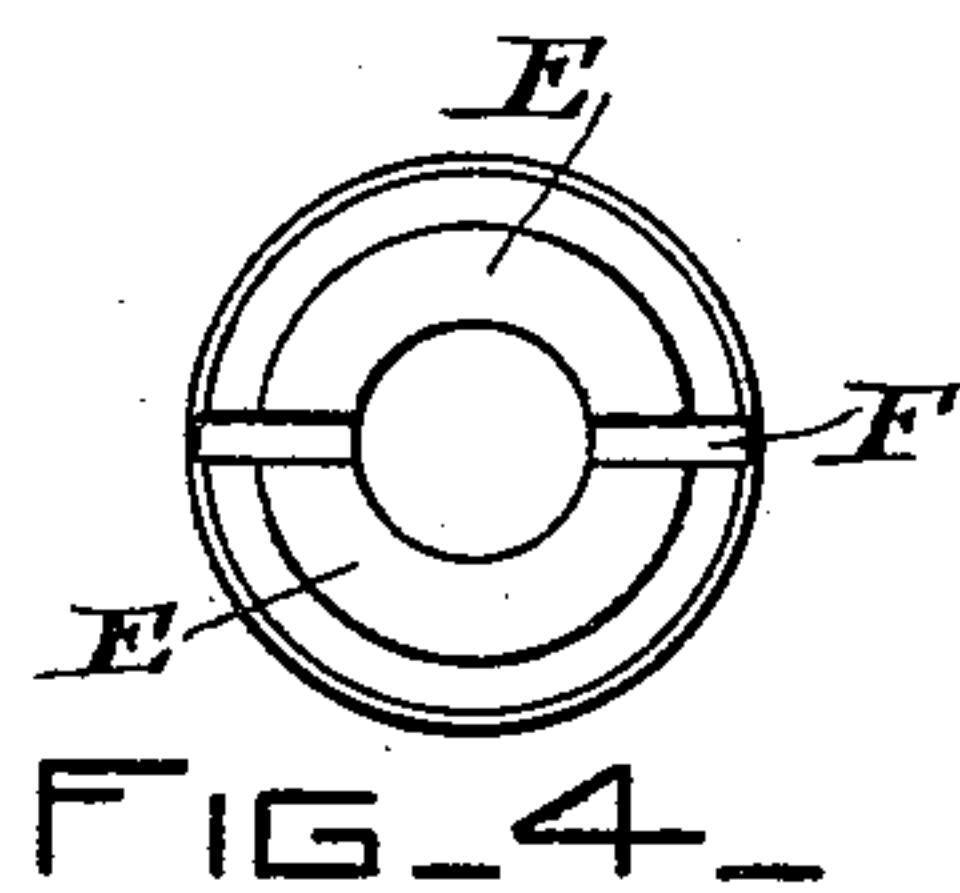
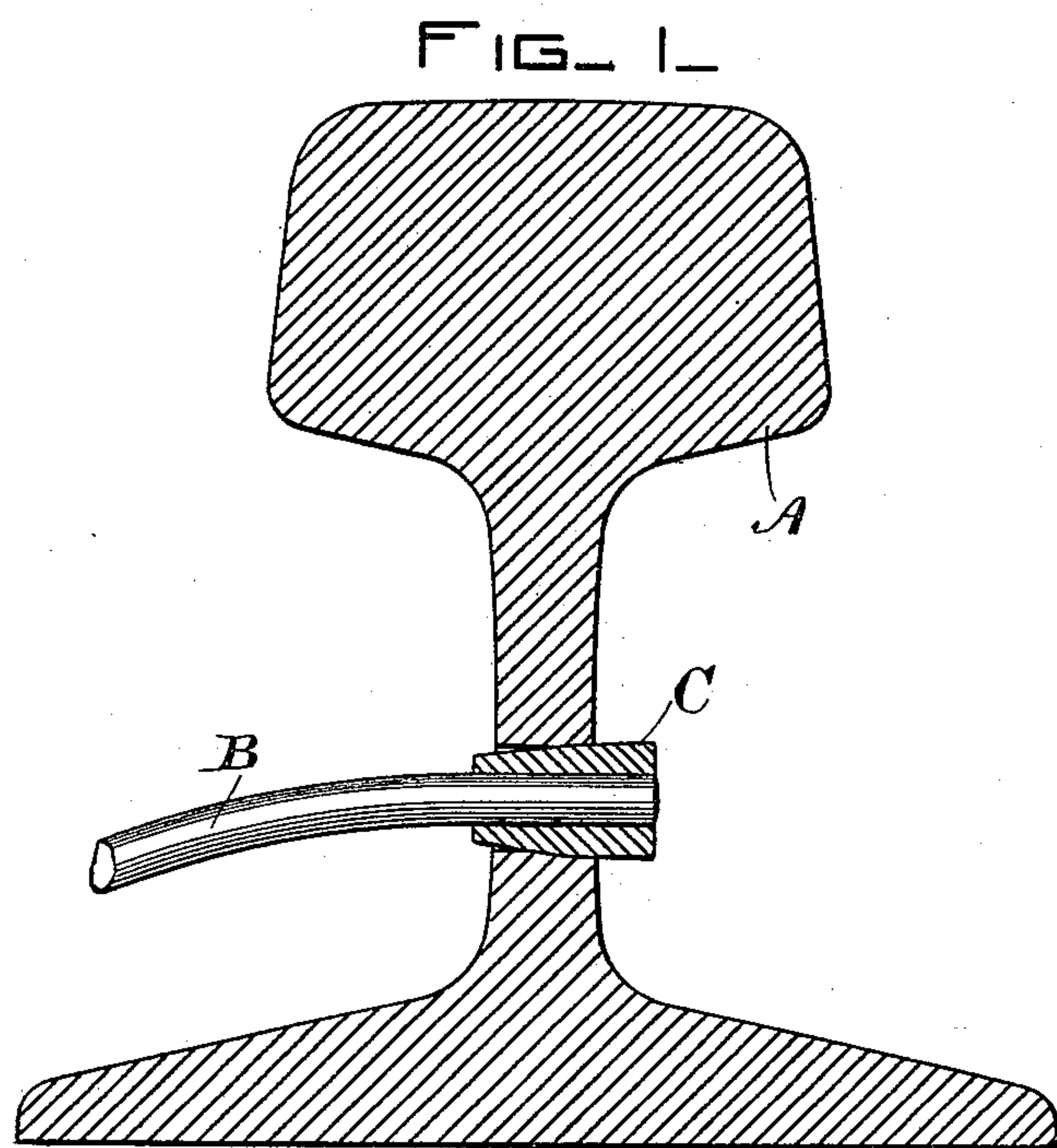


(No Model.)

G. K. WHEELER.  
ELECTRIC CONNECTOR.

No. 449,721.

Patented Apr. 7, 1891.



WITNESSES:

*A. C. Erve*  
*W. M. Trumbull*

INVENTOR:

*George K. Wheeler*  
*by Bartley Knight*

ATTYS.

# UNITED STATES PATENT OFFICE.

GEORGE K. WHEELER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE THOMSON-HOUSTON ELECTRIC COMPANY, OF CONNECTICUT.

## ELECTRIC CONNECTOR.

SPECIFICATION forming part of Letters Patent No. 449,721, dated April 7, 1891.

Application filed November 26, 1890. Serial No. 372,700. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE K. WHEELER, 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 Electric Connectors, of which the following is a specification.

My invention relates to electric connectors of the form shown in a patent to Edward L. Orcutt, numbered 434,943, and granted August 26, 1890, in which a wire is attached to a comparatively large and rigid conductor by a split tube surrounding the wire and driven into an opening in the large conductor. I have devised certain improvements in a connector of this character, which do away with breakage when driving the connectors into place, and by which the wire is clamped firmly in place, but not cut. These improvements are shown in the accompanying drawings, wherein—

Figure 1 is a transverse section of a rail, showing a wire attached thereto by my connector. Figs. 2 and 3 are longitudinal sections of the connector, taken on planes at right angles to one another; and Figs. 4 and 5 show the opposite ends of the same.

In the views, A represents a conductor of considerable size and rigidity, such as a railway-rail, and B is a wire which it is desired to attach firmly to the rail and at the same time to effect a good electrical connection. This is accomplished by a spool or thimble of metal C, which has a bore of substantially uniform diameter throughout, a solid uncut portion D at one end constituting a driving-head, and two spring-jaws E E, tapered away from the head and formed by splitting the spool at opposite points, as at F, for a portion of its length. To attach the wire to the rail, it is first passed through an opening bored therein. Then the spool is passed over its free end and driven into the opening with considerable force. This causes the spring-jaws E E to clamp the wire firmly, thus both holding the wire in place, so that it cannot readily work loose, and at the same time establishing a good electrical connection, which does not become deteriorated by oxidation. As the head of the spool is uncut, it can be driven into the rail with little danger of break-

age, and owing to the tapering of the jaws the thickness of metal gradually decreases toward their free ends, so as to increase their spring action. 55

In devising this connector I had particularly in mind its application to electric-railway service, in which it is desired to connect a supplementary wire to the rails at intervals, in order to increase the conductivity of the electric circuit. I find that it is admirably adapted to this purpose and does not work loose under the constant jar and pounding to which the rails are exposed. It may, however, be used for other purposes with an equal degree of advantage. 60 65

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a relatively large conductor, such as a railway-rail, and a wire to be attached thereto with a connector consisting of a tapered thimble or spool having a solid driving-head and split for a portion of its length to form spring-jaws, which are adapted to clamp the wire when the spool is driven into an opening in the conductor, as described. 70 75

2. The combination of a relatively large and rigid conductor, such as a railway-rail, and a wire to be attached thereto with a connector consisting of a spool or thimble having a solid driving-head, but tapered and split at opposite points for a portion of its length, so as to form spring-jaws of less thickness of metal than the head for clamping the wire when the spool is driven into an opening in the conductor, as described. 80 85

3. A connector adapted to unite a wire with a relatively large and rigid conductor, such as a railway-rail, consisting of a metal spool having a bore of substantially uniform size, a solid uncut driving-head, and tapered clamping-jaws formed by splitting the spool at opposite points for a portion of its length, as described. 90 95

In testimony whereof I have hereunto set my hand this 10th day of November, 1890.

GEORGE K. WHEELER.

Witnesses:

T. J. WILLSON,  
H. J. SINCLAIR.