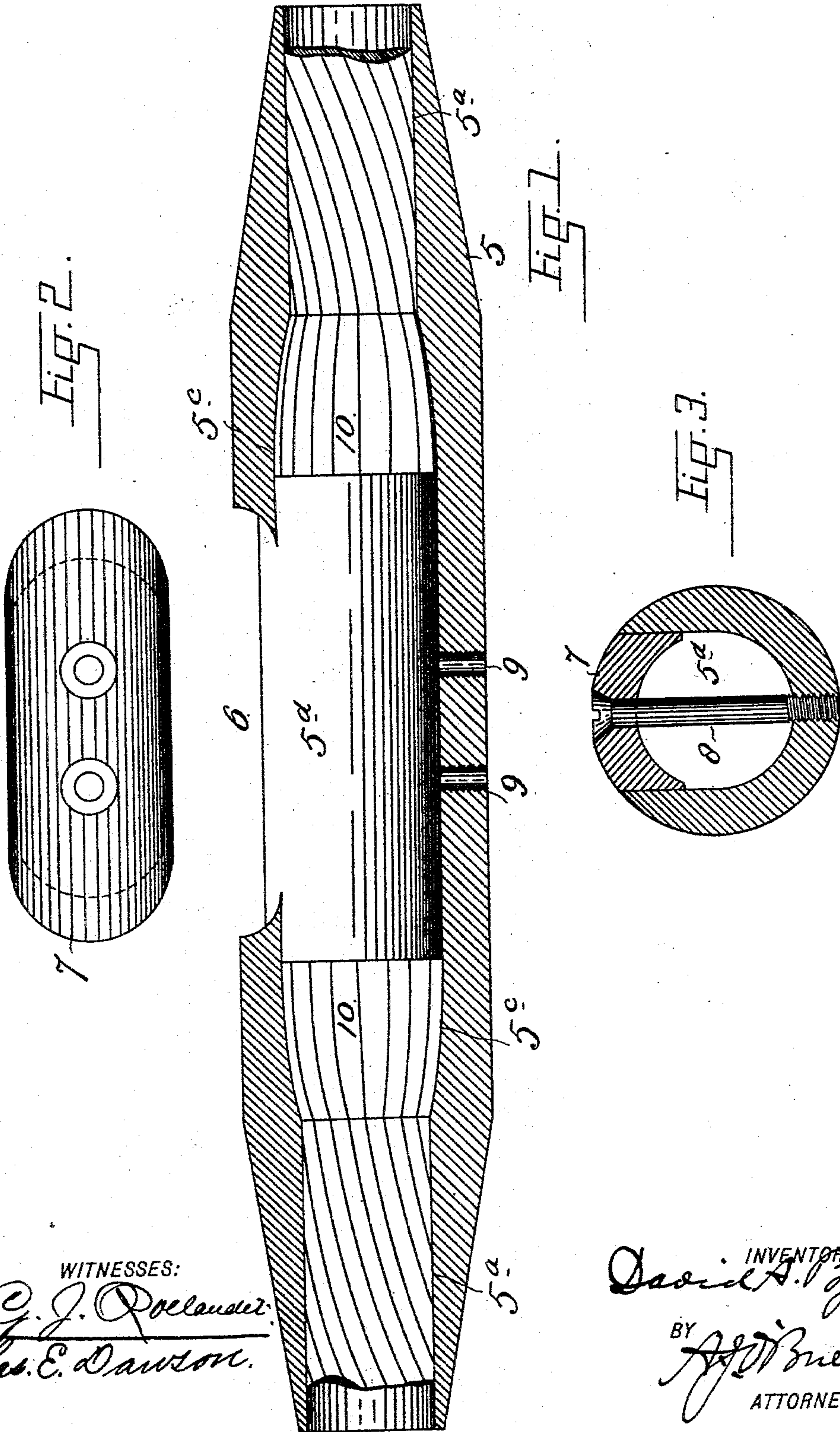


(No Model.)

D. A. BYERS.  
WIRE COUPLING.

No. 515,420.

Patented Feb. 27, 1894.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

DAVID A. BYERS, OF DENVER, COLORADO.

## WIRE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 515,420, dated February 27, 1894.

Application filed March 13, 1893. Serial No. 465,834. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID A. BYERS, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Wire-Couplings; 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in couplings adapted for use in uniting the sections of wires composed of single strand as trolley wires, or of wire ropes or cables composed of many strands, twisted or otherwise, assembled according to the purpose they are intended to serve.

The object of my invention is to provide a coupling which shall be simple in construction, economical in cost, reliable, durable and efficient in use.

To this end the invention consists of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a longitudinal section taken through the coupling. Fig. 2 is a plan view of the removable plate. Fig. 3 is a transverse section taken through the coupling.

Similar reference characters indicating corresponding parts or elements in the several views, let the numeral 5 designate the body of the coupling, composed of a continuous tube into which the extremities of the cable to be coupled are drawn.

I use the term cable in this specification in its broad and comprehensive sense to designate a single wire, or a rope composed of a plural number of strands, twisted or otherwise, assembled in intimate relation.

The openings in the extremities of the tubular part 5 are cylindrical as shown at 5<sup>a</sup>, while from the cylindrical portions the opening expands as shown at 5<sup>c</sup> and merges into a central chamber 5<sup>d</sup> where it attains its greatest diameter. This coupling shell is provided with an opening 6, leading to chamber 5<sup>d</sup>. This opening is closed when the joint is formed, by a plate 7 apertured to receive screws 8 which pass through the chamber 5<sup>d</sup> and enter threaded apertures 9 formed in the shell of the tube. The joint is formed by drawing the extremities to be coupled through the tube and out through the central opening 6, after which these extremities are enlarged or upset as shown at 10 to fit the enlarged apertures 5<sup>c</sup> of the opening in the shell. The plate 7 is then placed in position and fastened when the joint is complete and secure, as the enlarged or upset extremities 10 cannot be drawn through the smaller cylindrical openings 5<sup>a</sup>.

Having thus described my invention, what I claim is—

A coupling composed of an integral open ended tube enlarged interiorly and a detachable plate covering an opening leading to the central chamber, substantially as described.

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

DAVID A. BYERS.

Witnesses:

CHAS. E. DAWSON,  
W. R. WILCOX.