

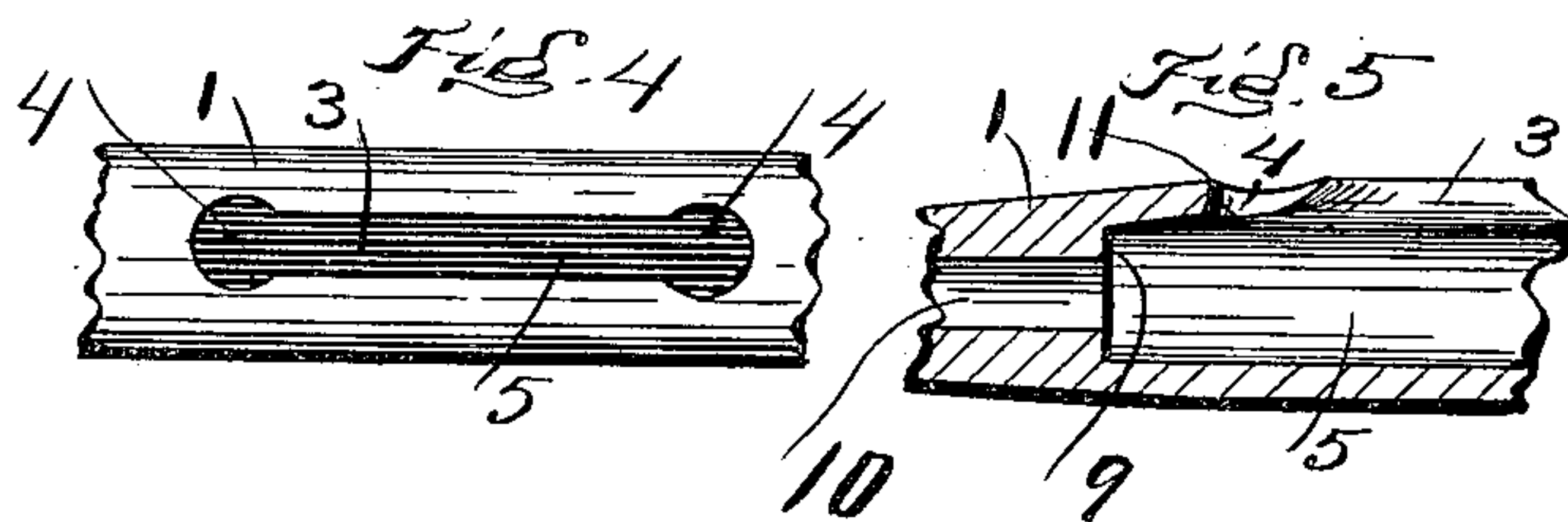
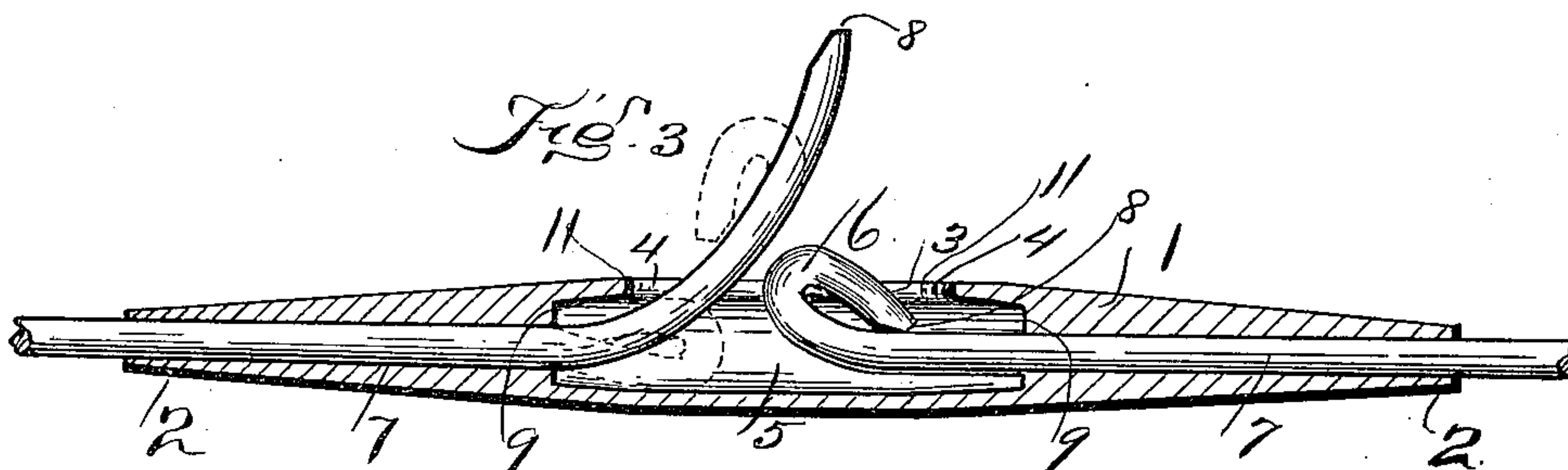
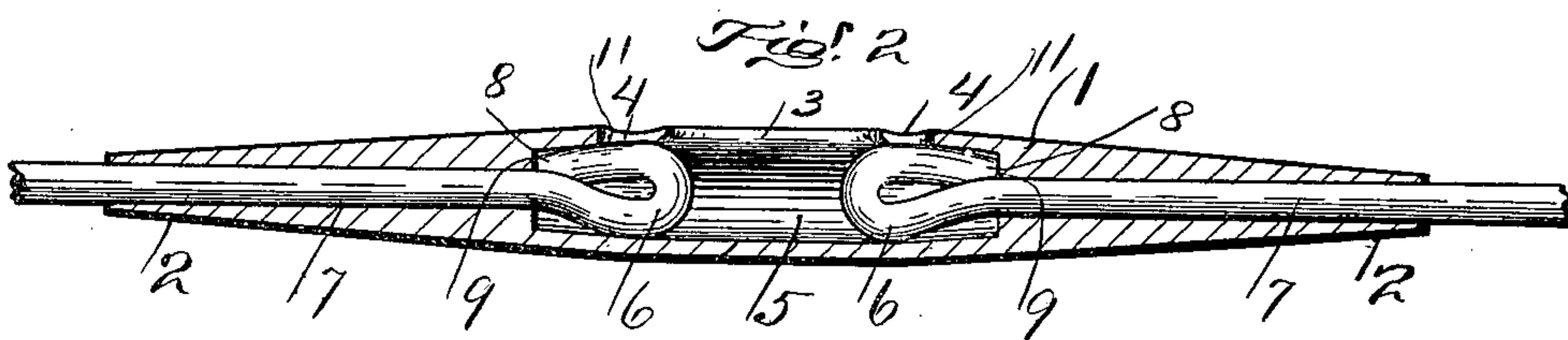
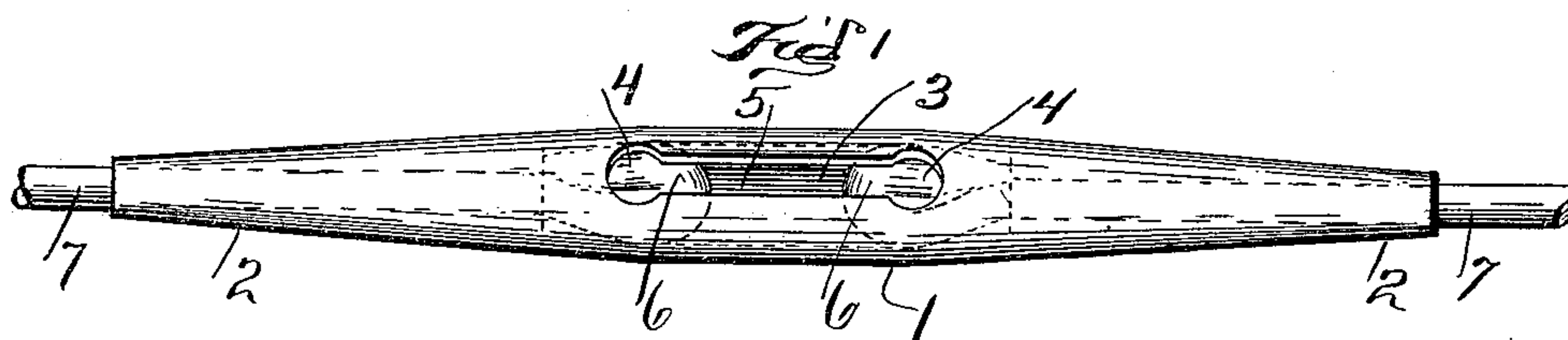
No. 663,605.

Patented Dec. 11, 1900.

W. FRANKHAM.
WIRE COUPLING.

(Application filed May 24, 1900.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM FRANKHAM, OF CANTON, OHIO.

WIRE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 663,605, dated December 11, 1900.

Application filed May 24, 1900. Serial No. 17,819. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM FRANKHAM, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Wire-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a side elevation showing the parts properly connected. Fig. 2 is a longitudinal section showing the wires coupled. Fig. 3 is a view showing a longitudinal section of the coupler and illustrating the wires partially bent. Fig. 4 is a top view of the center portion of the coupler. Fig. 5 is a view showing a portion of the coupler and illustrating the position of one of the wire-bending grooves.

The present invention has relation to wire-couplings designed more especially for use in connecting trolley-wires; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the coupler proper, which is substantially of the form shown, and, as shown, it is provided with the tapered ends or extensions 2, which extensions are formed of such a length that they can be given a gradual taper between the main center part 1 and their extreme ends. The coupling 1 is provided with the elongated slot 3, said elongated slot being provided at its ends with the enlarged openings 4. The main or center portion 1 of the coupling proper is provided with the chamber 5, which chamber is extended a short distance in each direction beyond the enlarged openings 4 and is so extended to provide recesses for the reception of the bent ends 6 of the wires 7, said bent ends 6 being formed substantially as shown in the drawings, and when they are brought into their normal position, such as illustrated in Fig. 2, the ends 8 of the

bent portions 6 will abut against the flanges 9 of the chamber 5, thereby providing a direct pull against the flanges 9.

For the purpose of preventing the expansion of the coupling proper said coupling is so formed and the wires 7 so bent that the strain will come directly against the flanges or shoulders 9 without any lateral strain whatsoever.

In use the wires 7 are passed through the apertures 10, formed in the tapered flanges 2 of the coupling proper, and the wires bent as illustrated, after which the wires 7, together with their bent ends, are brought into the position illustrated in Fig. 2, and for the purpose of assisting in bending the wires 7 downward or into the chamber 5 the inclined grooves 11 are provided, which inclined grooves guide the bent portions 6 downward, so as to bring said bent ends into proper alinement with the wires 7, and by extending the chamber 5, as illustrated, the bent ends 6 will be seated, as illustrated in Fig. 2.

It will be understood that by my peculiar arrangement I am enabled to provide a coupling that will not interfere with the movement of the trolley-wheel, and at the same time no lateral strain is produced by the pull of the wires.

It will be understood that by providing the inclined grooves 11 and locating said grooves at the sides of the openings 4 room will be provided for allowing the bent portions 6 of the wires 7 to be brought into their sockets in the event the bent portions should be located a little to one side of the main wires.

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

1. In a wire-coupling the combination of a coupling provided with tapered extensions having wire-apertures, a slot formed in the central portions of the coupling and provided with enlarged openings at the ends of the slot, and the inclined grooves, and the wires 7 provided with bent ends or portions and the bent ends or portions seated into recesses, substantially as and for the purpose specified.

2. In a wire-coupling the combination of a tapered coupler provided with a chamber, a

slot formed in the coupling, inclined grooves
located in the sides of the enlarged openings
and the enlarged openings communicating
with the slot, and wires provided with bent
5 ends, substantially as and for the purpose
specified.

In testimony that I claim the above I have

hereunto subscribed my name in the presence
of two witnesses.

WILLIAM FRANKHAM.

Witnesses:

J. R. BOND,

F. W. BOND.