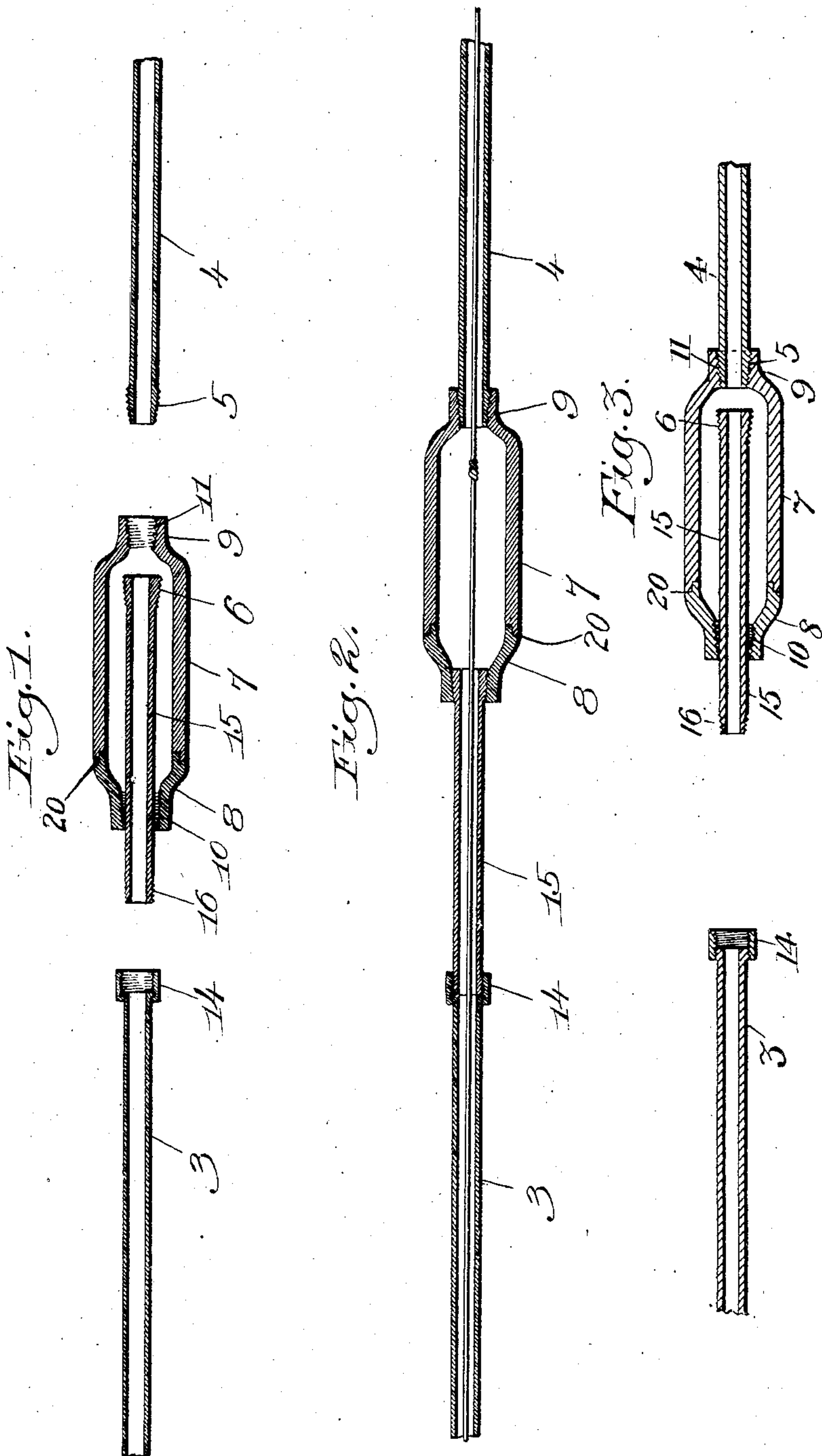


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PATENTED APR. 4, 1905.

J. N. GOODALL.
PIPE COUPLING.

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Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN N. GOODALL, OF PORTSMOUTH, NEW HAMPSHIRE, ASSIGNOR OF
ONE-HALF TO CHARLES A. TOLMAN, OF KITTERY, MAINE.

PIPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 786,558, dated April 4, 1905.

Application filed June 15, 1904. Serial No. 212,623.

To all whom it may concern:

Be it known that I, JOHN N. GOODALL, a citizen of the United States, and a resident of Portsmouth, in the county of Rockingham and State of New Hampshire, have invented an Improvement in Pipe-Couplings, of which the following description, in connection with the accompanying drawings, is a specification, like numerals on the drawings representing like parts.

This invention relates to a coupling member adapted to be used between lengths or sections of conduit-pipes; and it has for its object to provide a novel device of this character which can be readily disconnected from one or both of the conduit-pipe ends thus connected and which when thus disconnected will leave a considerable space or gap to facilitate the drawing in of wires or conductors into the conduit-pipes. As is well known, these conduits for conductors are put into a building, ship, &c., when it is being built and at some subsequent period the electric wires or conductors are drawn into the conduits, and to facilitate this operation outlet-boxes are placed at various intervals into which the conduits lead.

In some situations it is not convenient or appropriate to place a regular outlet-box, but at the same time it is very desirable that the wireman, who is drawing in or inserting the conductors, should have access to the interior of the conduit at such places in order to facilitate the operation of drawing in the wires.

My improved coupling device is especially designed for use under such conditions, for when in place, it forms an extension of the conduit; but it is so constructed that it can be disconnected from one of the conduit-sections and telescoped together, thereby affording an open space in the conduit of sufficient length for the wireman to accomplish his purpose.

My improved coupling device comprises a barrel member having its central portion of enlarged diameter and having reduced ends, both of which are interiorly screw-threaded and the outer end of which is screw-threaded to an end of one of the conduit-sections, and a pipe-section non-detachable from the barrel

member and adapted to telescope therewithin, the inner end of said pipe-section being provided with exterior screw-threads to engage the interior screw-threads of the inner end of the barrel-section and the outer end of the pipe-section being adapted to be secured to the end of the other conduit. The barrel member is considerably shorter than the gap between the two conduits to be connected, and the combined length of the barrel and pipe section is just equal to the length between the conduit ends thus connected.

The device will be more fully hereinafter described in reference to the accompanying drawings, in which—

Figure 1 is a section of my improved coupling with the parts disconnected from the conduits to be connected. Fig. 2 is a similar view of the coupling when in place; and Fig. 3 is a sectional view showing the coupling detached from one conduit, as it will be when conductors are being drawn into a conduit.

3 and 4 designate two conduits which are connected by my improved coupling, the adjacent ends of the conduits being separated, as shown. The end of the conduit 4 is exteriorly screw-threaded, as at 5, and the end of the conduit 3 is shown as being provided with an ordinary coupling 14, which is interiorly screw-threaded. My improved coupling comprises the barrel member 7 and the tubular pipe-section 15. The central portion of the barrel member has an enlarged diameter, and the ends 8 and 9 thereof are reduced in size and are provided with interior screw-threads 10 and 11. The pipe-section 15 is provided at one end with exterior screw-threads 16 to fit the interior screw-threads of the coupling 14 and at the other end is slightly enlarged in diameter and is exteriorly screw-threaded, as at 6, the screw-threaded portion 6 being of a size to fit the interior screw-threads 10 of the barrel member. The screw-threads 16, 6, and 5 are preferably of the same pitch and are cut in the same direction.

It will be noted that the screw-threads have a slight taper and that the enlarged end of the pipe-section is of such a size that it cannot be screwed out of the reduced end 8

of the barrel member. The pipe-section and barrel member are therefore non-detachable from each other.

In using my improved coupling device the
5 end 9 of the barrel is screwed to the conduit 4 and the pipe-section secured to the conduit 3 at the time when the said conduits are put in place in the building, ship, or wherever they are to be used, all as shown in Fig. 2.
10 When the wireman comes to draw the conductors into the conduits, he turns the pipe-section 15 in a direction to uncouple it from the conduit 3, this operation resulting in unscrewing the head 6 thereof from the screw-threads 10. Said pipe-section may then be telescoped within the barrel member, as shown in Fig. 3, thus making a gap between the end of the pipe-section and the conduit 3 of sufficient length to enable the wireman to draw
20 the conductors into the conduit or to splice or repair conductors already therein. This necessary gap or space may also be afforded by turning the barrel member so as to disconnect it from the conduit 4 and at the same time
25 unscrewing it from the head 6 and then telescoping said barrel member over the pipe-section. This latter operation would open a gap between the barrel member and the conduit 4.
30 It will be noted that the combined length of the pipe-section and barrel member is equal to the distance between the ends of the conduits 3 and 4 and that the barrel member is very much shorter than this distance. In the
35 preferred form of my invention the pipe-section 15 is made slightly longer than the barrel member, so that it may be telescoped within the barrel member until the inner end engages the reduced end 9 of the barrel member,
40 and yet the screw-threaded end 16 thereof will project beyond the other end of the barrel member.

In manufacturing the barrel member I propose to make it of two parts, which are brazed
45 or secured together in any suitable way at the joint 20, and in assembling the parts the pipe-section is first inserted through the reduced neck 8, and thereafter the two parts of

the barrel member are secured together as above described. 50

Various changes may be made in the construction of the parts without departing from the invention.

Having described my invention, what I claim as new, and desire to secure by Letters 55 Patent, is—

1. A coupling device for connecting two separated conduit ends, comprising a barrel member shorter than the distance between the ends of the conduits to be coupled, said 60 barrel member having a central portion of enlarged diameter and reduced interiorly-screw-threaded ends, the outer end adapted to be screw-threaded to one of the conduits, and a pipe-section telescoping within the barrel member and non-detachable therefrom, said pipe-section having on its inner end an exteriorly-screw-threaded head to engage the interior screw-threads on the outer end of the barrel, and having its outer end adapted 70 to be detachably secured to the other conduit.

2. A coupling device for coupling together two separated conduit ends, comprising a barrel member shorter than the distance between the conduit ends to be coupled, said barrel 75 member having a central portion of enlarged diameter and reduced interiorly-screw-threaded ends, the outer end of which is adapted to be screw-threaded to one conduit end, and a pipe-section longer than the barrel member 80 telescoping therewithin and non-detachable therefrom, said pipe-section having on its inner end an exteriorly-screw-threaded head to engage the inner screw-threads on the inner end of the barrel, the outer end of the pipe- 85 section being screw-threaded to engage the other conduit end, the screw-threads on both ends of the pipe-sections being of the same pitch and in the same direction.

In testimony whereof I have signed my name 90 to this specification in the presence of two subscribing witnesses.

JOHN N. GOODALL.

Witnesses:

GEORGE H. SANDERSON,
GEORGE R. BRITTON.