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No. 835,211.

PATENTED NOV. 6, 1906.

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C. E. ATKINSON.
COUPLING DEVICE.
APPLICATION FILED OCT. 20, 1905.

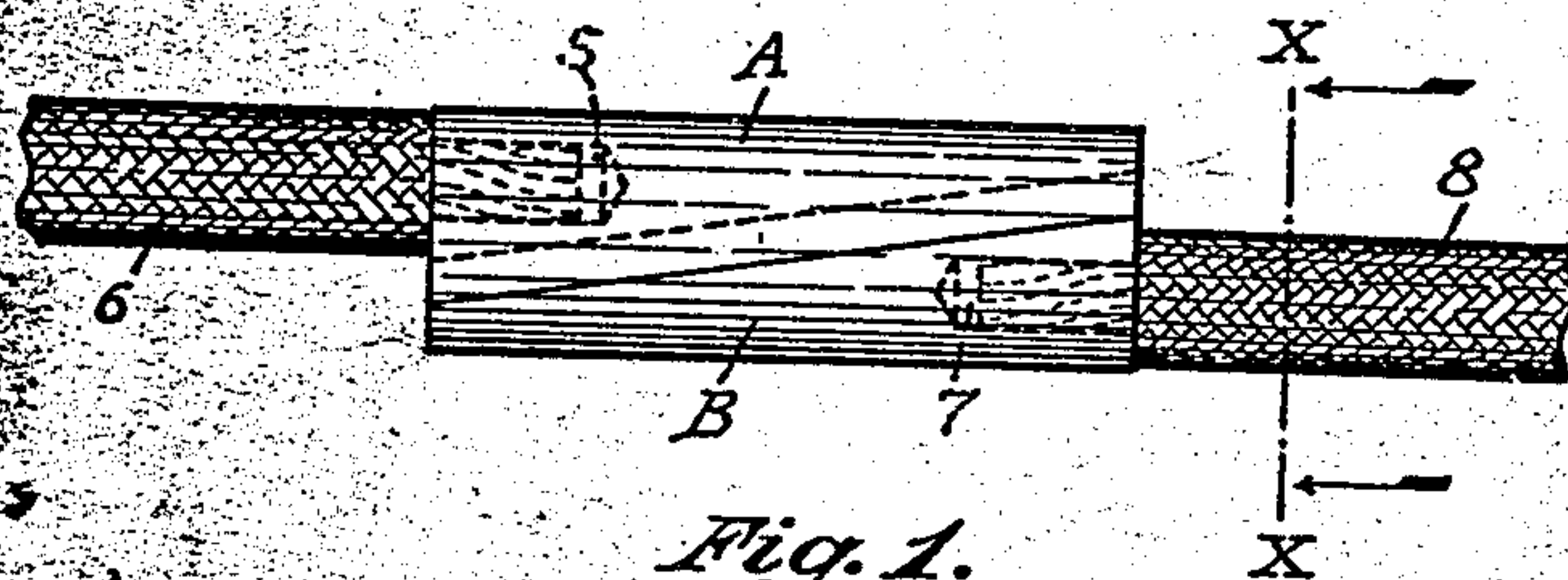


Fig. 1.

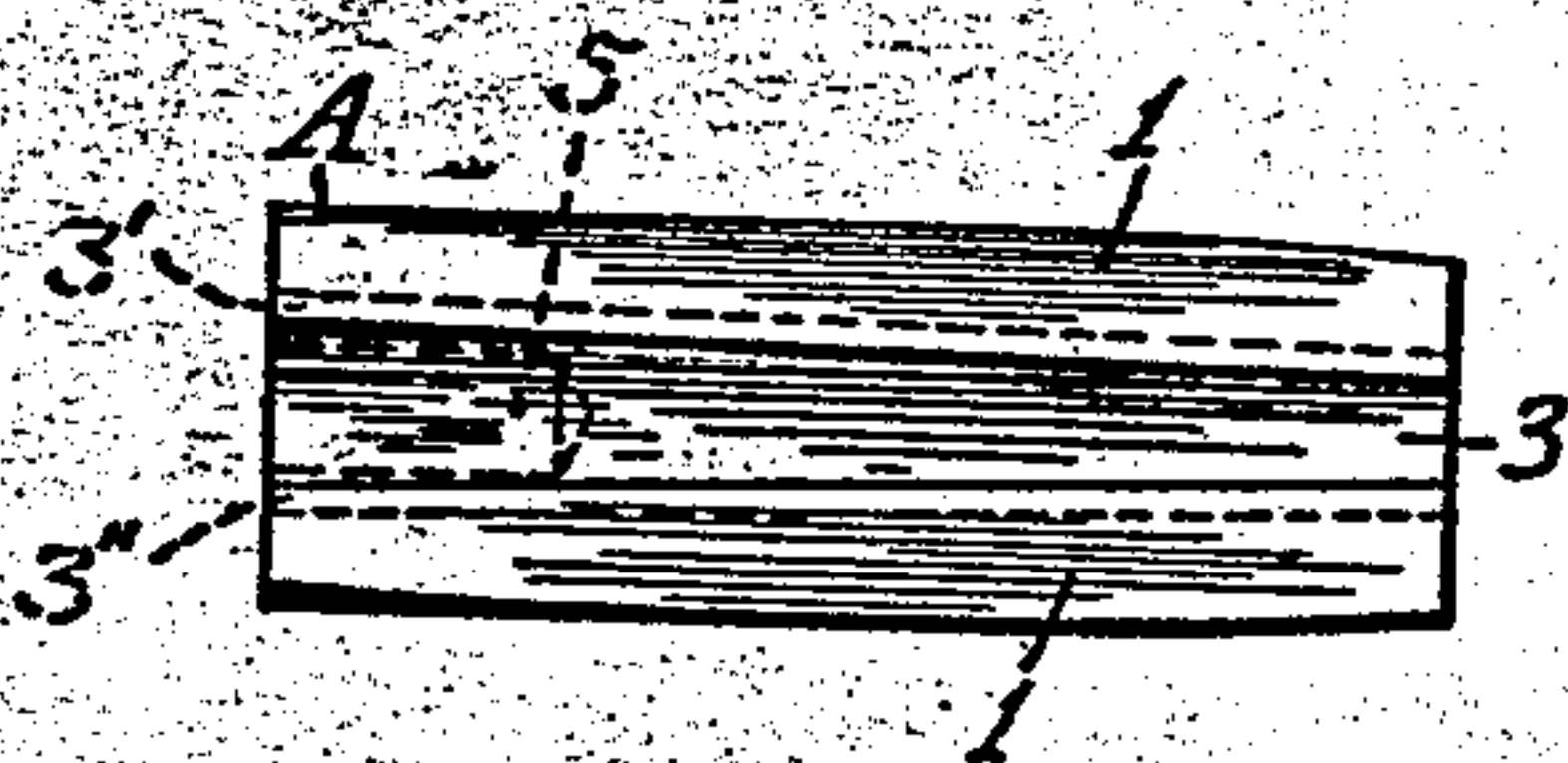


Fig. 2.

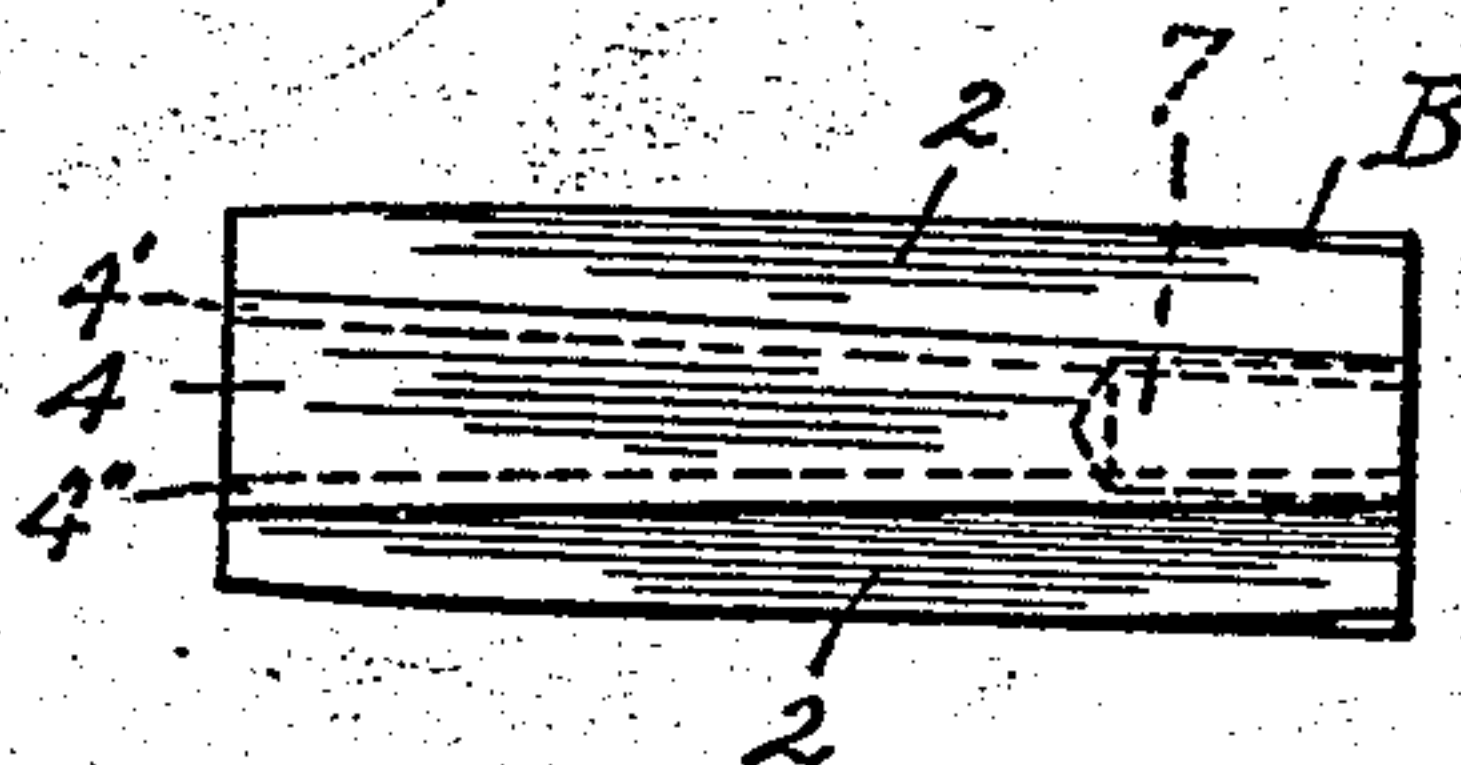


Fig. 3.

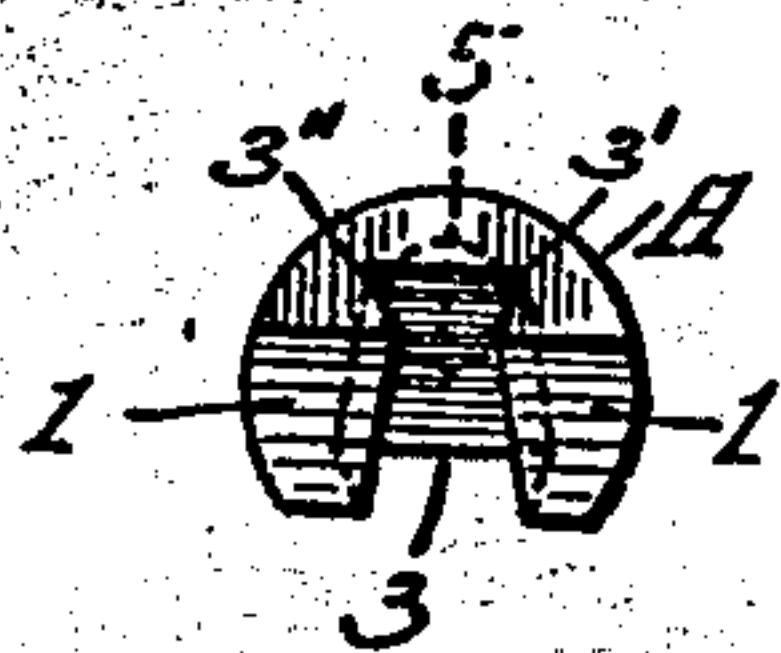


Fig. 4.

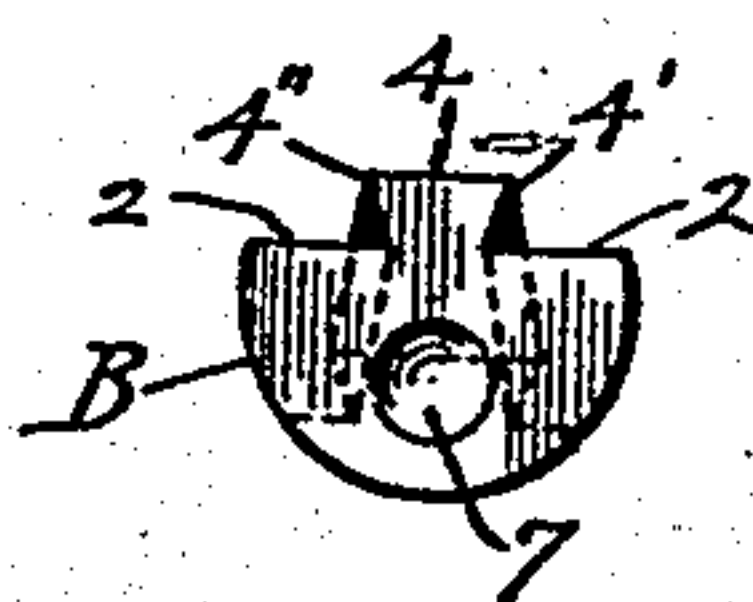


Fig. 5.

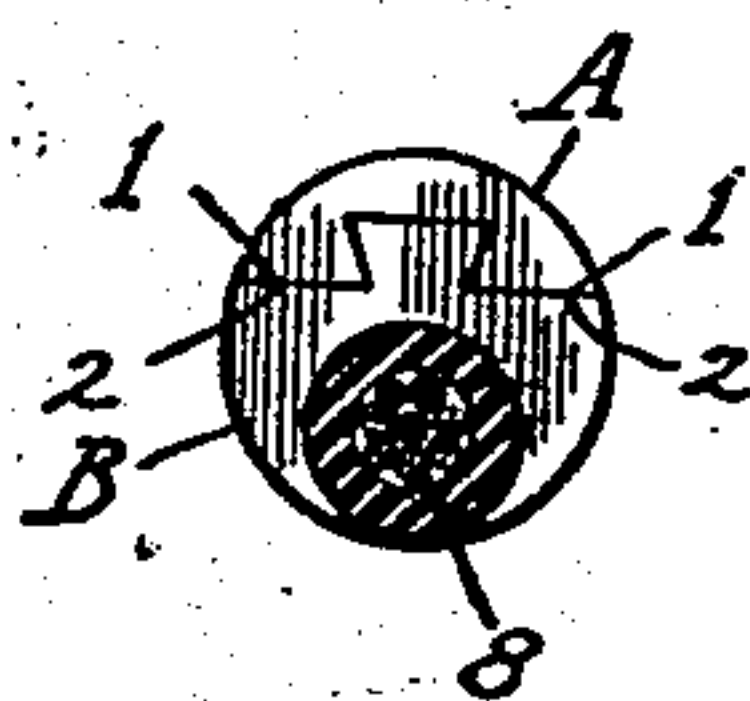


Fig. 6.

WITNESSES:
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UNITED STATES PATENT OFFICE.

CHARLES E. ATKINSON, OF RICHMOND, INDIANA, ASSIGNOR OF ONE-THIRD TO JOHN M. LONTZ AND ONE-THIRD TO ALEXANDER GORDON, OF RICHMOND, INDIANA.

COUPLING DEVICE.

No. 835,211.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed October 20, 1905. Serial No. 283,627.

To all whom it may concern:

Be it known that I, CHARLES E. ATKINSON, a citizen of the United States, residing in the city of Richmond, in the county of Wayne and State of Indiana, have invented a new and useful Coupling Device, of which the following is a full, clear, and exact description and specification, which when taken in connection with the accompanying drawings, forming a part thereof, is sufficiently concise as to enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to couplings, and more particularly to that class of couplings designed for detachably connecting the ends of wires and for making electrical connections in general.

The object of my invention, broadly speaking, is to provide a highly-efficient coupling for electric wires or the like which will consist of a minimum of mechanical parts, be easy of installation and operation, and which can be manufactured and sold at a comparatively low price.

A more specific object is the provision of a coupling for electric wires which may be used for connecting the ends thereof securely and firmly and at the same time will be easy of disconnection when desired; and, finally, my object is to provide an electrical connection or coupling which will be simple in construction and application, positive in its action, neat and attractive in appearance, and efficient in its operation.

Other objects and particular advantages will appear from the following specification, from the accompanying drawings, and from the claims hereunto appended.

The distinctive features of my invention, briefly stated, consist of two interrelated members, which are termed the "male" and the "female" members, the novel means by which said members may be engaged and disengaged, and the means for permanently connecting an end of separate lengths of wire to each member, all of which will elsewhere be described in concrete detail in the course of this specification.

The preferred manner of the construction of my invention and that which in practice has been found the most practical is illus-

trated most clearly in the accompanying drawings, in which—

Figure 1 shows a side elevation of my invention complete and in operative engagement one member with the other. Fig. 2 is a face view of the female member of the coupling separate. Fig. 3 is a face view of the male member of the coupling separate. Fig. 4 is an end view of the female member. Fig. 5 is an end view of the male member, and Fig. 6 is an end view of the two members in engagement as taken in the line X X of Fig. 1.

Similar reference characters denote like parts throughout the several views of the drawings.

In order that my invention may be the more fully understood and its many advantages fully appreciated, I will now take up the description thereof in concrete detail and will describe the various parts and its intended operation as briefly and compactly as I may.

In this exemplification the letter A denotes the female member, and the letter B denotes the male member, of my invention, together forming an oblong coupling round in cross-section. The line of division between the two members is diagonal, extending longitudinally from end to end, thereby forming the wedge-shaped members A and B, substantially as shown in the drawings.

From the above it will be seen that the member A is provided with a face 1, and the member B is provided with a face 2, which two faces are on a common plane, but are formed on an angle with reference to the periphery of the respective members of which each is a part.

Sunk into the face of the member A, centrally and longitudinally thereof, is the slot 3, tapering slightly from its larger to its smaller end, which is of greater width at its base than at its mouth, caused by reason of the undercut kerfs 3' and 3'', and rising from the face of the member B, centrally and longitudinally thereof, is the tongue 4, tapering slightly from its smaller to its larger end, which is of greater width at its apex than at its base by reason of the oppositely-disposed flanges 4' and 4'', formed integral therewith.

The slot 3, with its kerfs 3' and 3'', and the tongue 4, with its flanges 4' and 4'', are

formed to be neatly fayed together, the latter fitting into the former when the ends of the two members A and B are brought together even with each other, as shown in Figs. 1 and 6.

Extending longitudinally into the larger end of the member A is a round cavity aperture 5 to receive the bared end of the wire 6, where it is secured by soldering (not shown) or otherwise permanently attached, being positioned substantially as shown, and likewise extending longitudinally into the larger end of the member B is a round cavity aperture 7 to receive the bared end of the wire 8, where it is secured by soldering (not shown) or otherwise permanently attached, being positioned substantially as shown.

From the above it will be seen that the faces of the two members are dovetailed convergingly together, and they can be separated only by slipping the faces a short distance upon each other in a direction that would move the wires 6 and 8 endwise toward each other, and thereby preventing the wires from being separated by pulling them endwise apart when the members are coupled.

From the above description it is apparent that if separated the two members may be brought together face to face, first with the adjoining ends somewhat beyond each other to the point, for instance, where the ends of the two wires would be even with each other, which will allow the tongue 4 to enter the slot 3, the faces of the members then contacting with each other, and then by moving the wires 6 and 8 in an opposite direction from each other the tongue and its flanges will tightly engage in the slot and its kerfs, thus coupling the wires and accomplishing the object of the invention.

While I have illustrated and described the best means now known to me for carrying out the objects of my invention in a practical manner, I desire to have it understood that I do not restrict myself to the exact details of construction shown and described, but hold that such changes or variations therein as would naturally suggest themselves to the ordinary mechanic would clearly fall within the limits and scope of my invention.

Having now fully shown and described my invention and one manner of its application, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A coupling device consisting of two segmental and complementary members divided longitudinally at an angle and dovetailed convergently together in their contacting faces, all substantially as shown and described.

2. A coupling consisting of two segmental members which are complements of each other and which are divided by contact-faces,

which faces are formed at an angle longitudinally, said faces being dovetailed together longitudinally by a tapering tongue and a tapering undercut slot formed in the respective male and female members, substantially as described.

3. A coupling device formed of a male and a female member adapted to be coupled and uncoupled manually, the male member having a tapering tongue extending longitudinally above its contact-face and the female member having a tapering slot formed longitudinally in its contact-face to receive said tongue, and means for connecting the terminals of wires in each of said members, all substantially as set forth.

4. A coupling device consisting in combination of two oppositely-disposed members each having a wire-terminal secured therein and the members being separated by a common line disposed at an angle and an undercut tapering slot formed in the face of one of the members and a tapering tongue rising above the face of the other member and adapted to fit and interlock with said slot of the opposite member, substantially as shown and described and for the purposes set forth.

5. In a coupling device consisting of two members each integral in itself and each having secured in one end the terminal each of a separate wire, the members being joined on a line disposed at an angle longitudinally forming a contact-face for each member, and means for detachably connecting said faces which means consists of an undercut tapering slot formed longitudinally in the face of one member and a tapering tongue formed longitudinally in the face of the other member and adapted to fit said slot when the members are connected.

6. A coupling consisting of a cylindrical body divided on an angle longitudinally into two separate members A and B, the member A having an undercut tapering slot extending from end to end centrally of its face, the member B having a diverging tapering tongue extending from end to end centrally of its face, said tongue being adapted to fit said slot when the members are coupled together.

7. A coupling for electric wires composed of two wedge-shaped members, each having at the larger end a wire socket, said members having engaging longitudinal dovetailed parts, which parts are wider at one end than at the other whereby increased strain on the wires increases the force of engagement between the parts.

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

CHARLES E. ATKINSON.

Witnesses:

ROBERT W. RANDLE,
R. E. RANDLE.