C. T. CROCKER.

CONNECTOR.

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904,603.

Patented Nov. 24, 1908.

Fig. 1

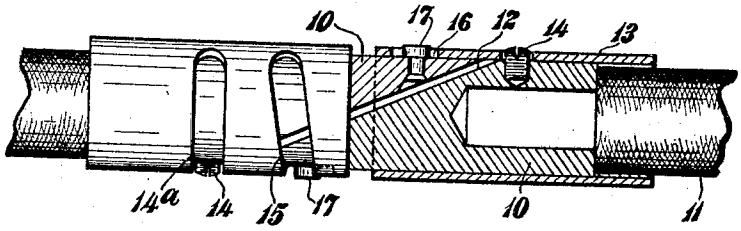


Fig. 2

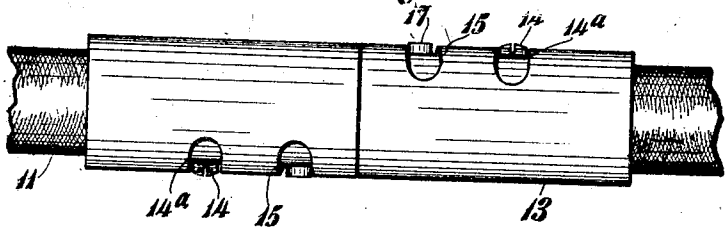


Fig. 3

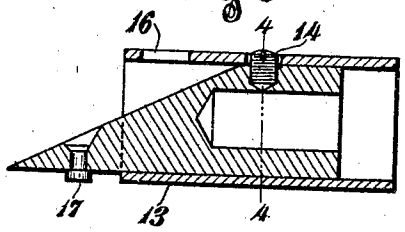


Fig. 4

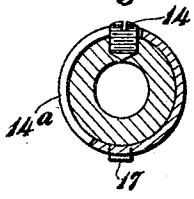


Fig. 5

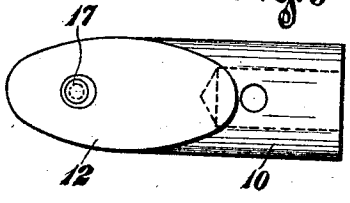
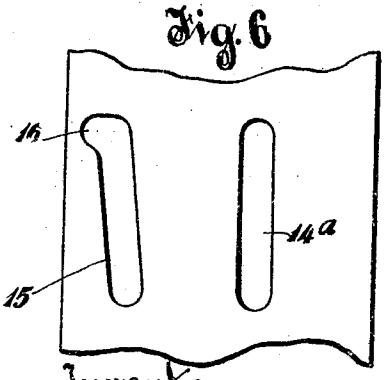


Fig. 6



Witnesses

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UNITED STATES PATENT OFFICE.

CLARENCE T. CROCKER, OF NORWOOD, OHIO, ASSIGNOR TO ALLIS-CHALMERS COMPANY, A CORPORATION OF NEW JERSEY, AND THE BULLOCK ELECTRIC MANUFACTURING COMPANY, A CORPORATION OF OHIO.

CONNECTOR.

No. 904,603. Specification of Letters Patent. Patented Nov. 24, 1908.

Application filed August 31, 1906. Serial No. 332,780.

To all whom it may concern:

Be it known that I, CLARENCE T. CROCKER, a citizen of the United States, residing at Norwood, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Connectors, of which the following is a full, clear, and exact specification.

My invention relates to connectors or couplers for electric cables or conductors.

It has for one of its objects to provide a good connector or coupler of few parts which can be easily and cheaply made and which are duplicate or interchangeable.

A further object is to provide a connector or coupler consisting of parts which can be very quickly and securely joined or separated.

My invention consists in the details of construction and in the combination and arrangements of parts described in the specification and set forth in the appended claims.

For a better understanding of my invention, reference is had to the accompanying drawings in which I have shown the best form of my invention now known to me.

Figure 1 is a partial elevation and partial section showing the clamping sleeves in position for clamping the terminal members together; Fig. 2 is an elevation of the same showing the position of the sleeves when the terminal members are clamped together; Fig. 3 is a longitudinal section through one of the terminal members and clamping sleeves; Fig. 4 is a transverse section through the same, substantially along the line 4—4 of Fig. 3; Fig. 5 is a detached view of one of the terminal members; and Fig. 6 is a development of a portion of one of the clamping sleeves.

Referring now to the figures of the drawing I have shown at 10 two similar, counterpart or interchangeable terminal members, in this case tubular or cylindrical in shape, each having at one end a socket to receive a conductor 11. The opposite ends of the terminal members are beveled, forming long contact extensions 12 having flat faces adapted to be clamped tightly to form a connection of negligible resistance.

Loosely mounted on each terminal is a sleeve or tube 13, which sleeves are adapted to be turned or rotated relative to the terminals to clamp the latter together. The rotary movement of each sleeve is limited by a set screw 14 in the corresponding terminal member, the head of which set screw extends outward into a slot 14ª, which extends approximately half way around the sleeve. It is seen that the set screw 14 prevents the sleeve or tube from being moved lengthwise of the terminal and hence from being separated therefrom when the terminals are disconnected. Each sleeve is also provided near the outer end with a biased or cam slot 15 having at one end an enlarged portion 16 adapted to receive the head of a pin or rivet 17 secured in the beveled end of the opposite terminal member 10. The slots 14ª and 15 in each sleeve are in this case side by side and extend the same distance around the sleeve and are of substantially the same width.

To connect the terminal members, the beveled faces are placed adjacent each other and moved toward each other until the heads of the rivets or pins 17 enter the enlarged portions 16 of the cam slots of the sleeves or tubes 13 as is shown in Fig. 1. To clamp the terminals together all that is necessary is to twist or turn both sleeves 13 relative to the terminal members. As the sleeves are rotated the inclined or biased sides of the slots 15 engage the heads of the rivets or pins 17, moving the latter and hence the terminal members longitudinally toward each other until the faces of the terminal members are tightly clamped together. The positions of the sleeves relative to the pins or screws 14 and 17 after the terminals are clamped together are shown in Fig. 2. The inclination of the sides of the cam slots and hence the degree of rotation of the sleeves necessary to clamp the terminals together can be made any desired amount. To disconnect the terminals all that is necessary is to rotate the sleeves in the opposite direction until the heads of the pins or rivets 17 reach the enlarged portions of the slots 16.

This construction possesses many advantages, among which are the simplicity and interchangeability of the parts, the ease with which, and short space of time in which, the

terminal members can be connected or disconnected, the firmness or security with which the parts are held together, and the excellency of contact between the terminal members.

I do not wish to be confined to the exact details shown, but aim in my claims to cover all modifications which do not involve a departure from the spirit and scope of my invention.

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

1. A connector or coupler for conductors or cables comprising terminal members having interfitting extensions, and a pair of sleeves for clamping said extensions together.

2. A connector or coupler for conductors or cables comprising cylindrical counterpart terminal members having interfitting projections, and means for clamping said terminal members together comprising a pair of rotary sleeves or tubes.

3. A connector or coupler for conductors or cables comprising two interchangeable cylindrical terminal members having engaging faces, and means for clamping said terminals together comprising a sleeve having a cam-slot on one terminal member and a projection on the other terminal member.

4. A connector or coupler for conductors or cables comprising two interchangeable cylindrical terminal members having engaging faces, and means for clamping said faces together comprising rotary sleeves each having cam-slot and a pin or other projection, the pin on each terminal member being seated in the cam-slot of the sleeve of the other terminal member.

5. A connector or coupler comprising a pair of cylindrical terminal members having beveled ends, each terminal member having a rotary sleeve provided with a cam-slot, and having a pin or other projection extending therefrom, so that by placing the pin or projection of each terminal member in the cam-slot of the sleeve of the other terminal member and rotating the sleeves the terminal members can be drawn tightly together.

6. A connector or coupler comprising a pair of counterpart terminal members having beveled ends, and means for clamping said ends together comprising a sleeve on each terminal member, each sleeve having a slot engaging a member on the terminal for limiting the movement of the sleeve and having also a cam-slot, and a pin or other projection near the outer beveled end of the terminal member adapted to be inserted in the cam-slot of the sleeve on the other terminal member, the parts being so arranged that by placing the terminal members together with the said pin or projection of each terminal member in the cam-slot in the sleeve of the other terminal member and rotating the sleeves the terminals are drawn tightly together.

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

CLARENCE T. CROCKER

Witnesses:
A. F. KWIS,
FRED J. KINSEY.