Nov. 15, 1927. 1,648,887

R. C. ARMEN

CONNECTER FOR ELECTRIC CONDUCTORS

Filed Oct. 28, 1925

Fig. 1.

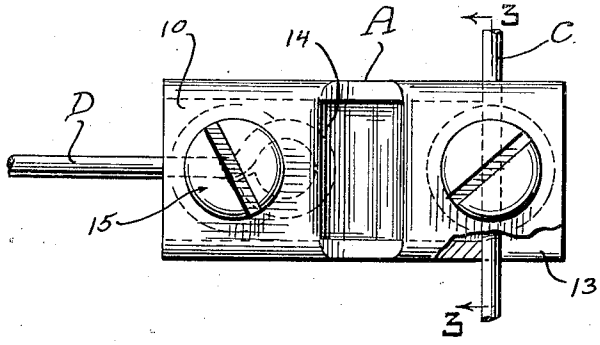


Fig. 3.

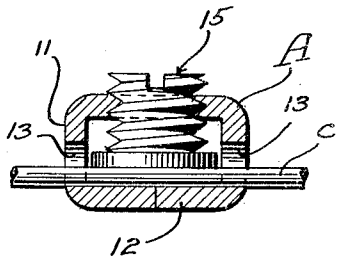


Fig. 2.

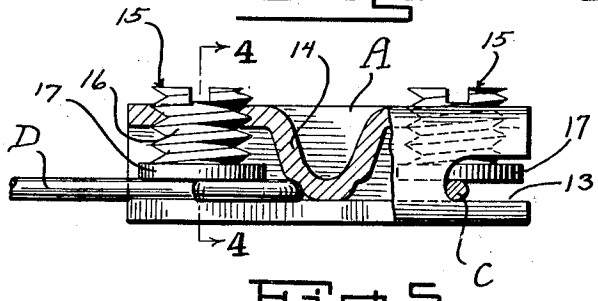


Fig. 4.

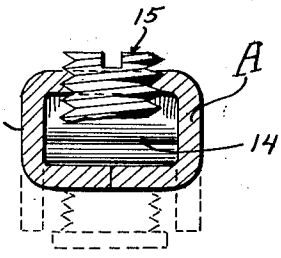


Fig. 5.

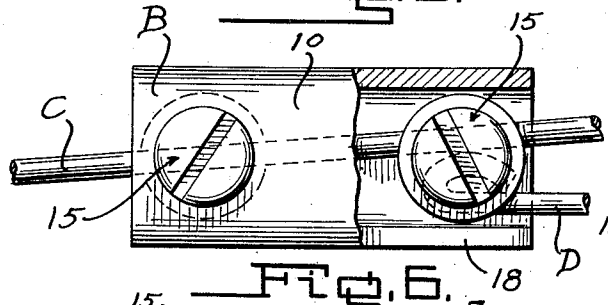


Fig. 7.

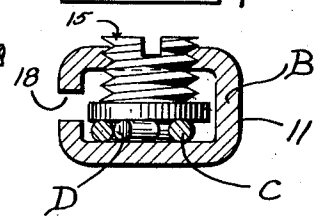
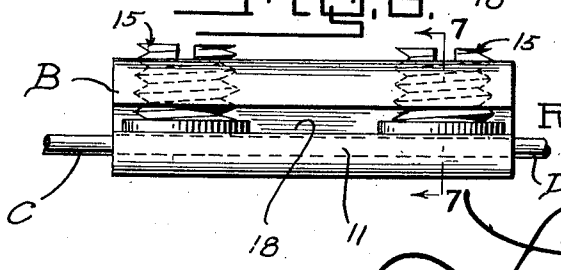


Fig. 6.



Rozella C. Armen
Inventor

By Lancaster and Allwine
Attorneys

Patented Nov. 15, 1927. 1,648,887

UNITED STATES PATENT OFFICE.

ROZELLA C. ARMEN, OF ROCHESTER, PENNSYLVANIA.

CONNECTER FOR ELECTRIC CONDUCTORS.

Application filed October 28, 1925. Serial No. 65,414.

The present invention relates to improvements in connecters for electric conducting wires, and the primary object of the invention is to provide an improved device of this character whereby electrical connections may be made to main line wires without the necessity of soldering.

A further object of the invention is to provide an improved conductor whereby a branch wire or conductor can be effectively connected at a right angle to the main line wire.

A still further object of the invention is to provide an improved connecter of this character, which is extremely simple in construction and operation, and which may be manufactured at relatively low cost.

Other objects and advantages of the invention will be apparent during the course of the following description, taken in connection with the accompanying drawing forming a part of this specification, and in which drawing:—

Figure 1 is a top plan view partly cut away and in section, and showing the form of the invention for connecting a branch line at a right angle to the main line conductor.

Figure 2 is a side elevation of the same partly cut away and in section.

Figure 3 is a transverse section on line 3—3 of Figure 1, and looking in the direction of the arrows.

Figure 4 is a transverse section on line 4—4 of Figure 2, and showing by way of dotted lines, the manner in which the set screws are associated with the body portion of the connecter.

Figure 5 is a top plan view partly broken away and in section of a slightly modified form of the invention, and showing a form whereby branch lines may be run in parallel relation to main line wire.

Figure 6 is a side elevation of the showing in Figure 5; and,

Figure 7 is a transverse section on the line 7—7 of Figure 6.

Referring to the drawing in detail, and wherein similar reference characters designate corresponding parts throughout the several views, the letter A may generally designate the form of connecter for connecting a branch line at right angles to the main line, and the letter B the form of connecter employed for connecting a branch line in parallel relation to a main line wire. The letter C may designate the main line wire throughout the several views, while the letter D designates a branch line connected to the main line wire C as by the improved connecter A.

The improved connecter A which is preferably formed of one piece of brass or copper, is shaped into a rectangular hollow body being open at each end, and embodying a top wall 10, parallel side walls 11, and a bottom wall 12. Extending longitudinally from one end of the body of the connecter, and formed in the side walls 11 thereof, are transversely aligned slots 13 having their lower edges disposed flush with the inner face of the bottom wall 12 and as is clearly illustrated in Figure 3. At a point midway of the body of the connecter, a portion of the top wall 10 is pressed downwardly into contacting relation with the inner face of the bottom wall 12 for providing a transversely extending stop 14 which is intended for limiting the distance which the branch conductor D may be inserted into the connecter body.

Set screws 15 embodying threaded shank portions 16 extending in screw threaded relation through the top wall 10 of the connecter body, have substantially flat heads 17 formed at their inner ends. These set screws 15 which are disposed to each side of the stop 14, are adapted to be turned into the body of the connecter for firmly pressing the conductor wires C and D into tight frictional engagement with the inner face of the bottom wall 12. The set screw 15 which is disposed at the main line connection end of the connecter, has its axial center disposed outwardly of the inner ends of the slots 13 as illustrated in Figure 2.

In use with the form for connecting a branch line at a right angle to the main line, the connecter is first positioned with the main line wire C extending through the slots 13, and after which the set screw may be turned for firmly clamping the line wire against the inner face of the bottom wall 12. The branch wire D may then be inserted into the opposite end of the connecter into engagement with the stop 14, and after which the second set screw may be turned into the connecter for firmly clamping the branch line against the inner face of the bottom wall 12.

With the form of invention as shown in Figures 5, 6 and 7, and which type is particularly well adapted for connecting a

branch line in parallel relation to the main line, one of the side walls 11 is provided intermediate its upper and lower ends with a longitudinally extending slot 18 which opens at both ends of the body of the connecter. It will be apparent that this slot 18 permits of the connecter being slid over the main line wire longitudinally thereof. After the connecter has been thus positioned over the main line wire, a branch line wire may be inserted into one end of the connecter body and be clamped against the inner face of the bottom wall as by the set screw 15. By so forming the slot 18 intermediate the upper and lower edges of the side walls, forms a flange at one side of the bottom wall for preventing accidental displacement of the wires.

It will be observed in both forms of the invention, that no distortion of the main line wire is caused by attachment of the connecter thereto, since in both forms, the main line wire is clamped between flat surfaces formed by the head 17 of the set screws, and the flat inner space of the bottom walls of the connecters.

Various minor changes may be made to the specific forms of the invention herein shown and described, without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. In a connecter for electric wires, an elongated hollow connecter body open at each end and having transversely aligned slots opening at one end of the body, means carried by the body between the slots for clamping a wire in said slots, and means for clamping a branch wire in the opposite end of the connecter body.

2. A connecter for main and branch line wires comprising an elongated hollow connecter body of substantially rectangular shape in cross section, forming a top wall, side walls, and a bottom wall, said side walls being provided with aligned slots opening at one end of the connecter body, clamping means threaded into the top wall of the body above said slots for clamping engagement with a main line wire, and a second clamping member threaded into the top wall of the body adjacent the opposite end thereof and adapted for movement toward the bottom wall of the body into clamping engagement with a branch line wire.

3. A connecter for main and branch line wires comprising a hollow connecter body open at each end and including a top wall, side walls, and a bottom wall, said side walls being provided with aligned slots opening at one end of the connecter body and having their lower edges lying in a like plane with the inner face of said bottom wall, means threaded in the upper wall of the connecter body intermediate the ends of said slots for movement toward and away from the underlying bottom wall, and means for securing one terminal of a conductor within the opposite end of the connecter body from that in which said slots are formed.

4. A connecter for connecting a branch line wire at a right angle to a main line wire comprising a hollow connecter body open at each end and including a top wall, side walls, and a bottom wall, transversely aligned slots provided in the side walls and opening at one end of the connecter body for the reception of the main line wire transversely of the connecter body, means for clamping the main line wire within said slots, a stop formed substantially midway of the connecter body and closing the opening through said body, said stop serving to limit the insertion of a branch line wire into the opposite end of the connecter body, and means for clamping one terminal of the branch line wire in longitudinal relation within the connecter body.

5. In a connecter for main and branch line wires, a hollow connecter body having a longitudinally extending opening in one side wall thereof for the reception of a main line wire, and a screw carried by the top wall of the connecter body and movable toward the bottom wall of the body for clamping the main and branch line wires thereto.

ROZELLA C. ARMEN.