No. 896,200. PATENTED AUG. 18, 1908.

J. J. DOSSERT.

BRANCH CONNECTION FOR ELECTRIC CABLES.

APPLICATION FILED MAR. 7, 1904.

Fig. 1

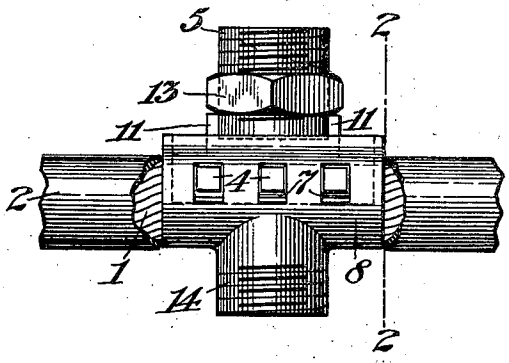


Fig. 2

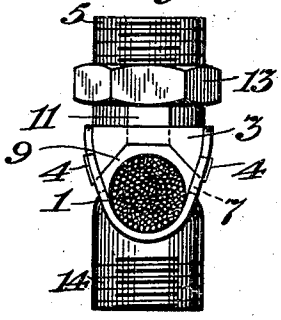


Fig. 3

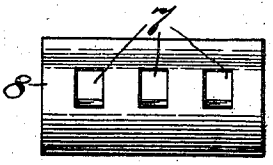


Fig. 4

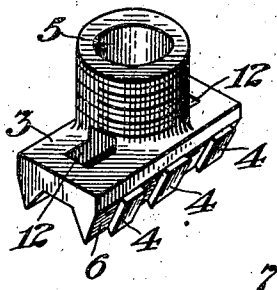


Fig. 5

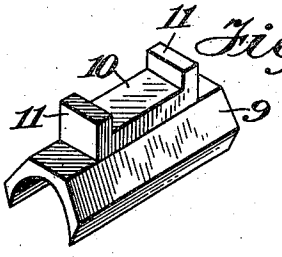
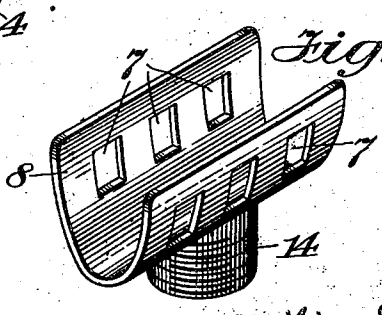


Fig. 6



Witnesses
Chas. F. Clagett
Thos. H. Brown

Inventor
John J. Dossert
By his Attorney
George H. Stockbridge

UNITED STATES PATENT OFFICE.

JOHN J. DOSSERT, OF NEW YORK, N. Y., ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO DOSSERT & COMPANY, A CORPORATION OF NEW YORK.

BRANCH CONNECTION FOR ELECTRIC CABLES.

No. 896,200. Specification of Letters Patent. Patented Aug. 18, 1908.

Application filed March 7, 1904. Serial No. 196,863.

To all whom it may concern:

Be it known that I, JOHN J. DOSSERT, a citizen of the United States, and resident of New York, county of New York, State of New York, have invented certain new and useful Improvements in Branch Connections for Electric Cables, of which the following is a specification.

My invention relates to improvements in branch connections for covered electric cables.

The object is to provide a connection which can readily be applied to any such cable for making any desired number of branch connections without severing the wires of the cables and without causing by its application any abrasion of the wires.

My invention will be understood by reference to the accompanying drawings, in which Figure 1 is an elevation of my improved branch coupling applied to a covered electric cable, a part of the covering of the latter being cut away to show the application; Fig. 2 is a cross section along the line 2—2 in Fig. 1; and Figs. 3, 4, 5 and 6, are detail views.

Referring to the first figure of the drawing, 1 is an electric cable made up of a number of strands of wire, and 2 is an insulating covering therefor. In applying my branch connection, the insulating covering is removed for a short distance, and practically corresponding to the width or length of the coupling, whereupon the coupling is applied to both sides of the bared portion of the cable and securely attached thereto.

The elements of the coupling as such are shown assembled in Figs. 1 and 2 and in their several details in Figs. 4, 5 and 6. It will be understood that the elements of the coupling grasp the bared coupling on opposite sides. One element of the coupling consists of a part, 3, having lugs, 4, 4, 4, on its external surfaces and being formed in one piece with or connected to a screw-threaded tube, 5, as shown. The lugs 4, 4, 4 are formed on surfaces 6, 6, 6, which are inclined towards each other, and the said lugs are adapted to enter openings, 7, 7, 7, in a corresponding piece on the opposite side of the cable 1, the lugs 4 and openings 7, thus constituting complementary interlocking means for the yokes which serve to lock the parts together. The solid parts on which the lugs 4, 4, 4, are formed may be described as a pair of jaws. The openings 7, 7, 7 are formed in opposite sides of a comparatively thin yoke of metal, 8, which has spring enough to spread over the lugs and to spring back again and be held in place when the lugs enter the openings. The inner part of the yoke 8 is shaped so as to surround the cable 1 and form intimate contact therewith when pressed against it.

On the same side with the piece 3, and supported within the same, is a compression piece, 9, the interior of which is semi-cylindrical in shape like the inner terminal of the yoke 8. The exterior of the part 9 is preferably angular in shape, conforming to the inner shape of the part 3 already described. Upon one side of the part 9 is formed a plate or bar, 10, having lugs, 11, 11, which pass up through openings, 12, 12, in the part 3 so as to lie partly or wholly outside the screw-threaded tube 5. This relates to the illustrated form of the device.

In applying the branch connection, the part 9 is placed within the part 3 and pushed up into position so that the lugs 11, 11 rest just outside the tube 5. The yoke 8 is then sprung over the lugs 4, 4, 4, until the latter enter the openings 7, 7, 7. The nut, 13, is then screwed down upon the outside of the tube 5, pressing upon the lugs 11, 11 until a firm contact is made between the part 9 and the cable on one side and the yoke 8 and the cable on the other side. By using a suitable tool, a very firm connection can thus be made and afterwards any suitable branch connections between the tube 5 and a branching conductor can be brought about.

I generally prefer to leave a suitable portion of the screw-threaded tube 5 free beyond the nut 13 so that, a connection, such as is shown, for example, in Fig. 6 of my application Serial Number 165,974, filed July 16, 1903, can readily be made.

When it is desired to make a double branch connection from the cable 1, the yoke 8 will be formed in one piece with a screw-threaded tube, 14, from which, by similar means, connection can be made with a second branch circuit. When, however, only one branch connection is desired, the form of yoke illustrated in elevation in Fig. 3 will be employed, such yoke being destitute of the tube 14 and allowing for connection with a single branch circuit by means of the tube 5.

The object of raising the plate or bar 10 upon the surface of the part 9 is to increase

the strength of that part of the structure. This plate or bar might be dispensed with and the lugs 11 11 might extend directly from the normal surface of the part 9 so as to be pressed upon by the nut 13 when the latter is screwed down to make good contact.

It will be understood that the tube 5, instead of being externally screw-threaded, as shown, might be screw-threaded internally, and might receive a male screw which would press lugs similar to lugs 11, 11, but located so as to come in range with the interior of the tube 5 instead of with the exterior.

When the connection is made as described, the whole coupling may be wound with tape and thus protect it from the weather or other deleterious influences. Plainly, however, the coupling described requires nothing more than the baring of the cable just about the width or length of the branch coupling and then the application of the coupling as described. Of course, the cable may be bared to as great a distance as is desired or convenient, but it is only necessary to expose it for the distance mentioned.

The branch coupling herein described may be utilized for grounding electric cables and is found to be highly serviceable for this purpose. It may also be used in cases where it is desired to thaw out frozen pipes by means of an electric current.

I claim as my invention:—

1. A branch coupling for electric cables comprising a pair of engaging conducting yokes adapted to be brought into contact with the cable on diametrically opposite sides thereof, and means for compressing the cable between the said yokes, such means consisting of slots in one of the coupling yokes, corresponding lugs on the other coupling yoke, and a nut.

2. A branch coupling for electric cables comprising a pair of engaging conducting yokes adapted to be brought into contact with the cable on diametrically opposite sides thereof, and means for compressing the cable between the said yokes, such means consisting of slots in one of the coupling yokes, corresponding lugs on the other coupling yoke and a nut, one of the said yokes being provided with coupling means for a branch conductor.

3. In a branch coupling for electric cables, a coupling member comprising a resilient yoke, a second rigid coupling member, a separable yoke-piece fitting within the first named yoke and engaging therewith, complementary interlocking means between said resilient and rigid coupling members, and means for compressing the two yoke portions on diametrically opposite sides of the cable.

4. In a branch coupling for electric cables, a coupling member supporting a resilient yoke, a second coupling member carrying a yoke adapted to fit within the first named yoke and engage therewith, in combination with means for compressing the two yoke portions on diametrically opposite sides of a cable, one of the said yokes being provided with coupling means for a branch conductor.

5. A branch coupling for electric cables, comprising two yokes of substantially equal length arranged on diametrically opposite sides of the cable and provided with complementary interlocking means consisting of lugs on one yoke and openings in the other, a relatively movable intermediate piece inserted between the said yokes, a tubular extension projecting from one of the yokes and constituting a coupling means for a branch conductor, and means coöperatively associated with said tubular extension and with the said intermediate piece for compressing the cable between the yokes and said intermediate piece.

6. A branch coupling for electric cables, comprising two yokes of substantially equal length arranged on diametrically opposite sides of the cable and provided with complementary interlocking means consisting of lugs on one yoke and openings in the other, a relatively movable intermediate piece inserted between the said yokes, and means coöperatively associated with the said intermediate piece for compressing the cable between one of the yokes and said intermediate piece, and an integral extension projecting from each yoke, said extensions constituting coupling means for branch conductors.

7. A branch coupling for electric cables comprising a pair of engaging conducting yokes, one of which is provided with coupling devices for a branch conductor, one of the said yokes being made up of the yoke piece proper, and a pair of jaws between which a rib on the yoke piece is adapted to lie.

8. A branch coupling for electric cables comprising a pair of engaging conducting yokes, one of which is provided with coupling devices for a branch conductor, one of the said yokes being made up of the yoke piece proper, a pair of jaws between which a rib on the yoke piece is adapted to lie, and means for causing the engagement of the said jaws and the opposite yoke.

9. A branch coupling for electric cables comprising a pair of engaging conducting yokes, one of which is provided with coupling devices for a branch conductor, one of the said yokes being made up of the yoke piece proper, a pair of jaws between which a rib on the yoke piece is adapted to lie, means for causing the engagement of the said jaws and the opposite yoke, and means for exerting pressure against the said rib and forcing the attached yoke piece evenly against one side of the cable, whereby the cable is acted upon from opposite sides by equal compressing forces acting radially upon the cable.

10. A coupling for electric cables, comprising a pair of engaging yokes arranged on diametrically opposite sides of the cable, one of said yokes being rigid and provided on opposite sides with lugs 4, and the other yoke having yielding walls provided with openings 7, adapted to take over the said lugs whereby to provide a relative movement between the yokes, in combination with means for compressing the cable between the yokes whereby said cable is pressed equally from opposite sides without danger of distortion or abrasion.

11. A branch coupling for electric cables comprising a pair of separable conductor engaging yokes provided with complementary interlocking means, said yokes being adapted to surround the cable, means for compressing the cable between said yokes, and one of said yokes being provided with an integral tubular extension constituting a coupling means for a branch conductor.

12. A branch coupling for electric cables comprising a pair of separable conductor engaging yokes provided with complementary interlocking means, said yokes being adapted to surround the cable, a tubular extension formed integral with one of said yokes to receive a branch conductor, and means for compressing the cable between the yokes.

13. A branch coupling for electric cables comprising a pair of yokes adapted to surround the cable and provided with complementary interlocking means, a compression piece fitting between the said yokes, a tubular extension on one of said yokes to receive a branch conductor, and means for forcing said compression piece against the cable, consisting of a nut surrounding said tubular extension and adapted to bear against a part of the compression piece.

14. A branch conductor for electric cables comprising a pair of yokes adapted to surround a cable and provided with interconnecting means, a compression piece fitting within one of the yokes and held against rotation therein, lugs on said compression piece, a tubular extension on one of the yokes to receive a branch conductor, and a nut threaded on said tubular extension and adapted to bear against the lugs on the compression piece to force the latter in contact with the cable.

15. A branch coupling for electric cables comprising a pair of yokes adapted to be brought into contact with the cable on diametrically opposite sides thereof and one of which is provided with coupling means for a branch conductor, a compression piece carried by one of said yokes and provided with lugs, and means engaging said lugs for compressing the cable between one of the yokes and compression piece.

Signed at New York, in the county of New York, and State of New York, this fourth day of March, A. D. 1904.

JOHN J. DOSSERT.

Witnesses:

WM. H. CAPEL,

GEORGE H. STOCKBRIDGE.