C. W. WRIGHT.

TERMINAL COUPLING FOR ELECTRICAL CONDUCTORS.

APPLICATION FILED JULY 29, 1915.

1,255,264. Patented Feb. 5, 1918

Fig. 1.

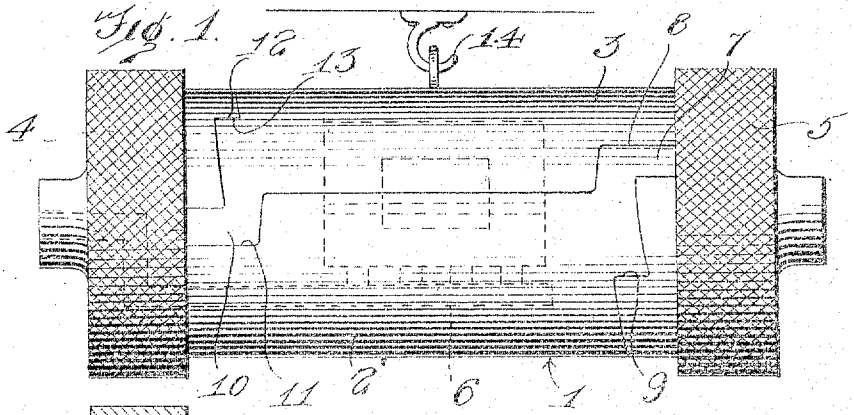


Fig. 2.

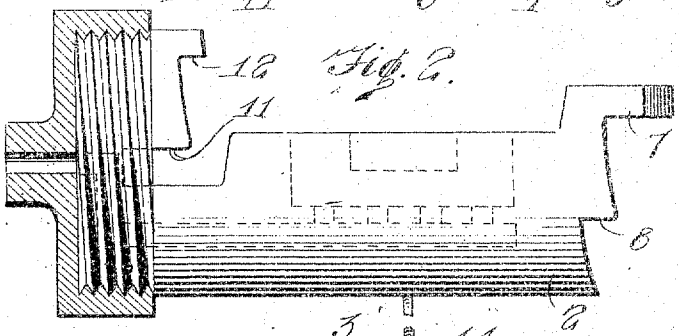


Fig. 3.

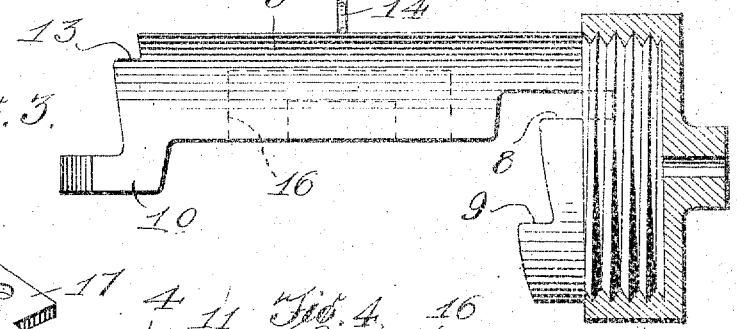


Fig. 5.

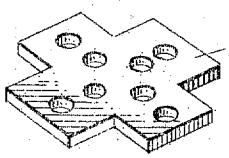
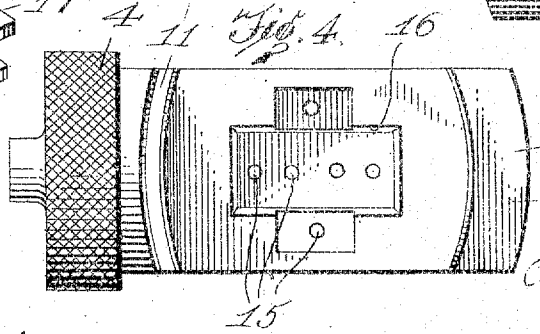


Fig. 4.



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TERMINAL COUPLING FOR ELECTRICAL CONDUCTORS.

1,255,264. Specification of Letters Patent. Patented Feb. 5, 1918.

Application filed July 29, 1915. Serial No. 42,602.

To all whom it may concern:

Be it known that I, CHARLES W. WRIGHT, citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Terminal Couplings for Electrical Conductors, of which the following is a specification.

My invention relates to electrical apparatus or appliances and more particularly to an improved connector or means for detachably and electrically connecting one or a plurality of conductor terminals.

The device of my invention is designed primarily as a constituent part of a copending application now on file and bearing Serial #33,362. In train annunciators (electrically operated) it is desirable that each car be equipped with an annunciator device and that the several devices be arranged in a single electrical circuit to be simultaneously operated from a common source. Now it is evident from the foregoing that a connecting plug or coupling for the electrical conductors must of a necessity be provided in order that the cars may be coupled and uncoupled in a manner common to the art. It is therefore a primary object of the present invention to provide a connecting plug of a novel design and construction whereby the conductor terminals may be coupled and uncoupled with accuracy, facility, rapidity and ease.

The above and additional objects are accomplished by such means as are illustrated in their preferred embodiment in the accompanying drawings, described in the following specification and then more particularly pointed out in the claims which are appended hereto and form a part of this application.

In describing my invention in detail reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a side elevation of a connector constructed in accordance with my invention;

Fig. 2 is an elevation, partly in section, of one of the connector sections;

Fig. 3 is a similar view, the complemental or interlocking connector section being shown;

Fig. 4 is a face view of one of the mentioned sections; and

Fig. 5 is a detail perspective view of a porcelain filling.

Before proceeding with a description of the drawings I desire to call particular attention to the fact that while I have evolved my invention with reference to its use as a constituent part of an electrically operated train annunciator, the same, if desired, may be used under any and all circumstances wherein it is desired that one or a plurality of electrical conductor terminals be connected and disconnected with facility and ease.

Referring now to the drawings by numerals, 1 designates as an entirety the connector or coupling, 2 and 3 the respective interlocking connector or coupler sections, 4 and 5 the respective interiorly threaded locking caps or fastening members and 6 the passage ways through which the electrical conductors (not shown) pass.

Each of the mentioned caps or fastening members 4 and 5 is adapted for threaded engagement with the respective coupler sections 2 and 3, the cap 5, when locked or fastened, overlapping one end of the coupler section 3 and the cap 5 when locked or fastened, overlapping one end of the coupler section 2, such arrangement maintaining the respective coupler sections against lateral displacement and the conductor terminals at all times in conductive relation so that an electrical current may pass from one to the other of the railway cars in connection with which the connector or coupler is used.

An extension 7 is formed upon the coupler section 2 to fit a complemental recess 8 therefor formed in the coupler section 3. A shoulder 8 is formed upon the said section 2 to bear against a shoulder 9. The coupler section 3 is in turn provided with an extension 10 adapted for fitting engagement with a recess 11 therefor in the coupler section 2. Said section 2 is also provided with a shoulder 12 for engagement with a shoulder 13 of the section 3. By the construction noted it is evident that the respective coupler sections are of a peculiar construction whereby to be easily interlocked by relative lateral movement and securely fastened when thus interlocked against continued lateral movement by means of the fastening cap or member 5. To fasten the caps 5 it is but necessary that they be oppositely turned. When assembled or fastened together, the coupler sections 2 and 3 form a substantially cylindrical casting of a neat and attractive

design. In use, the coupling is adapted to be suspended as indicated at 14 at any convenient point exteriorly of the car in connection with which it is used.

In Fig. 4 I have shown the coupler section 2 as recessed, the passage way 6 terminating in a plurality of smaller passage ways designated 15 each leading to the recess in turn designated 16. When so formed, a porcelain filler 17 is adapted to be arranged in the recess and to act as a support whereby the terminals (not shown) of the conductors leading thereto may be maintained in an upright position and in firm contact with conductor terminals (not shown) carried by the coupler section 3. The latter coupler section 3 is likewise recessed and equipped with a filler similar to that described as forming a part of the section 2.

It will be observed from the foregoing that movement other than lateral cannot be effected under any circumstances when once the coupler sections are interlocked; that the only operation incident to a connection of the conductor terminals is that outlined above, viz: laterally and relatively moving the coupler sections until interlocked and thereafter operatively turning the cap members until in overlapping engagement with the respective coupler sections 7 and 10; and that the sections constituting the connector, when uncoupled, are adapted to be carried, one coupling section at the end of each car.

It will be understood that the above description and accompanying drawings comprehend only the general and preferred embodiment of my invention and that various minor changes in details of construction, proportion and arrangement of parts may be made within the scope of the appended claims and without sacrificing any of the advantages of my invention.

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

1. In a connector for electrical conductors, overlapping complemental connector sections having surfaces to permit mutual abutting engagement at their ends, the end of each section having a laterally offset extension for engagement in a corresponding recess formed in the abutting surface of the coacting section, whereby separation of the sections longitudinally and transversely is precluded.

2. In a connector for electrical conductors, overlapping complemental semi-cylindrical connector sections, having surfaces to permit mutual abutting engagement at their ends, the end faces of the sections and the abutting surfaces being convexed and concaved respectively in a diametrical direction, the end of each section having a longitudinally extended laterally offset extension for engagement in a corresponding recess formed in the abutting surface of the coacting section, whereby separation of the sections longitudinally, transversely, and laterally, is precluded.

3. In a connector for electrical conductors overlapping complemental semi-cylindrical connector sections, having mutual abutting engagement at their ends, the end of each section having a longitudinally extending laterally offset extension for engagement in a corresponding recess in the abutting face of the coacting section, whereby separation of the sections in a longitudinal and transverse direction is precluded, and caps mounted on the ends of the sections to preclude lateral separation of the sections.

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

CHARLES W. WRIGHT.

Witnesses:
F. WRIGHT,
MARY M. WRIGHT.