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EXAMINER'S ROOM.

H. L. GRISWOLD & T. KERIN.  
TROLLEY WIRE SPLICER.  
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Fig. 1.



Fig. 2.

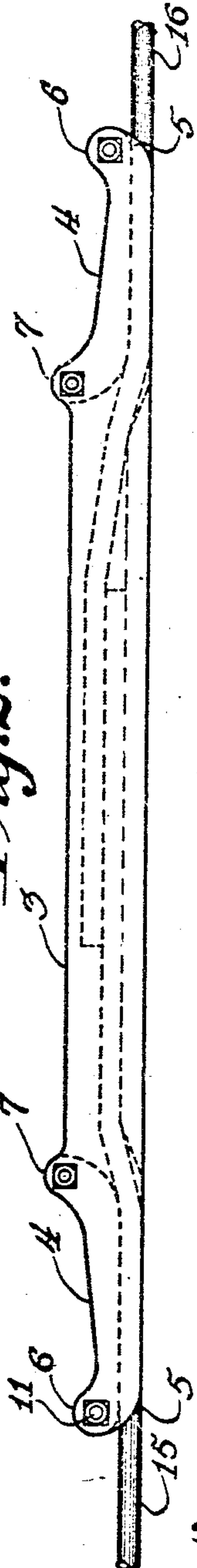


Fig. 3.



Fig. 4.



WITNESSES:

John D. McLaughlin  
H. P. Schroeder

INVENTORS,  
Howard L. Griswold,  
Thomas Kerin,

E. E. Sherman,  
ATTORNEY.



44.1  
UNITED STATES PATENT OFFICE.

HOWARD L. GRISWOLD AND THOMAS KERIN, OF OAKLAND, CALIFORNIA.

## TROLLEY-WIRE SPLICER.

963,288.

Specification of Letters Patent.

Patented July 5, 1910.

Application filed June 26, 1909. Serial No. 504,571.

*To all whom it may concern:*

Be it known that we, HOWARD L. GRISWOLD and THOMAS KERIN, citizens of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Trolley-Wire Splicers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to wire splicers, and the principal object of the same is to provide a device of the character described which may be used for splicing trolley wires.

With the above and other objects in view the invention contemplates employing a coupling sleeve which is made in the form of a wire receiving groove open at its top and ends, the intermediate portion of the groove being provided with a bottom plate which presents a flat bottom surface which is in alinement with the bottom edges of the open ends of the groove, the ends of said plate being beveled or inclined. End clamps are arranged between the open ends of said groove and are adapted to clamp the trolley wire to the beveled ends of said plate so that the ends of said wire may be held within said groove in overlapping relation.

In carrying out the objects of the invention generally stated above it will be understood, of course, that the essential features thereof are susceptible of changes in details and structural arrangements, one preferred and simple embodiment of which is shown in the accompanying drawings, wherein—

Figure 1 is a top plan view of the improved splicing sleeve. Fig. 2 is a side elevation thereof. Fig. 3 is a central vertical sectional view taken on the line 3—3, Fig. 1. Fig. 4 is a detail view of one of the wire clamps employed in connection with the splicing sleeve.

Referring to said drawings by numerals, 1 designates the flat bottom plate of the improved coupling or splicing sleeve, said bottom having its ends beveled or inclined as indicated at 2. Said plate has preferably formed integrally therewith a pair of upstanding spaced apart vertically arranged side members 3 which form a holding groove in which the wires to be spliced or coupled are held. Said side members have the upper edge of their end portions reduced and downwardly inclined as indicated at 4 and their bottom edges are straight and arranged

parallel with and in the same plane as the bottom of the plate 1. The ends of said side members are rounded as indicated at 5 and curve outwardly and upwardly to form oppositely disposed end ears 6 through which bolt holes are formed. At the junction of the reduced end portions of said groove or sleeve with the intermediate portion thereof, upstanding ears 7 are provided through which openings are formed. As will be seen by reference to Fig. 3, the intermediate ears 7 of the sleeve are directly above the beveled ends of the plate 1.

A wire clamping member is arranged between the open ends of the coupling sleeve, said clamping member having its upper edge curved to conform to the contour of the upper edge of the end portions of said sleeve, the inner end of said clamp being provided with an attaching ear 8 adapted for pivotal connection with the intermediate ears 7 of the sleeve by means of a bolt 9. The outer end of said clamping member is also provided with an ear 10 which is adapted to be held in rigid relation with the end ears 6 by means of a bolt 11. The inner end of the clamping members when in position within the clamping sleeve is directly over the beveled ends of the plate 1, the bottom edge of said inner end of the clamping members being rounded. The body portion of said clamping members has its lower surface in a straight plane as indicated at 12 which is in the same plane as the straight flat top surface of the plate 1, and at a slight distance above the lower edge of the straight open bottom of the open end portion of the sleeve. The outer end of the clamping members is rounded as indicated at 13. Preferably the intermediate body portion of each clamping member is cut away or slotted as indicated at 14, so as to reduce the weight of the same.

In applying the device for connecting the ends of wires, said ends being designated by the numerals 15 and 16, respectively, the clamping members have their outer ends disengaged from the end ears of the sleeve and are then rocked upwardly on their intermediate connection with said sleeve, the wires 15 and 16 are then threaded into the sleeve and may be arranged in overlapping relation as indicated by dotted lines in Fig. 2. The clamps are then rocked back on their pivots so that they will enter the sleeve and bind the wires in engagement with the bev-



eled ends of the plate 1, after which their ends are fastened to the end ears of the sleeve by means of the bolts 11.

It will be seen from the foregoing, that the arrangement of the clamps with the sleeve is such that when being rocked to their wire clamping position, they act as a cam lever, their inner rounded end portion being the cam which forced the wires to binding engagement with the plate 1. To release the wires, the end bolts are disengaged from the end ears of the clamps and the sleeve, whereupon, by means of the open ends of said sleeve, the clamps may be readily forced upwardly to release their inner pivoted ends from engagement with the wires.

The invention is of especial advantage in connection with the use of rolling or sliding contacts, for it will be seen that the rounded ends of the sleeve guide the contact so that it will be gradually forced to the straight bottom of the sleeve and the plate, thereby permitting said contact to pass along the coupling or splicing sleeve when moving at a high rate of speed.

What we claim as our invention is:—

1. A trolley wire splicing device comprising a bottom plate, spaced apart vertically arranged side members carried by said plate and forming a wire receiving groove the ends of said members projecting beyond the ends of said plate and being open, and a clamping lever pivotally mounted within the open ends of said members and adapted to clamp a wire to the ends of said plate.

2. A trolley wire splicing device comprising a plate having beveled ends, spaced-apart parallel members carried by said plate and forming between them a wire-receiving groove, said members projecting beyond the ends of said plate, and a clamping lever pivotally mounted in each end of said groove and adapted to clamp a wire to the beveled ends of said plate.

3. A wire splicing device comprising a bottom plate having beveled ends, oppositely disposed spaced apart vertically arranged side members carried thereby, the ends of said members projecting beyond the ends of said plate and being reduced, ears projecting from the upper edge of the reduced end portions of said side members, said ears being arranged in pairs the members of which are oppositely disposed and the inner set of ears of the side members being arranged above the beveled ends of said plate, and a cam lever having its cam surface pivotally mounted in the intermediate ears of the said side members and its other end adapted to be locked in engagement with the other ears of said side members whereby said cam surface will bind a wire in contact with the beveled ends of said plate.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

HOWARD L. GRISWOLD.  
THOMAS KERIN.

Witnesses:

H. C. SCHROEDER,  
F. P. SCHROEDER.