

No. 773,621.

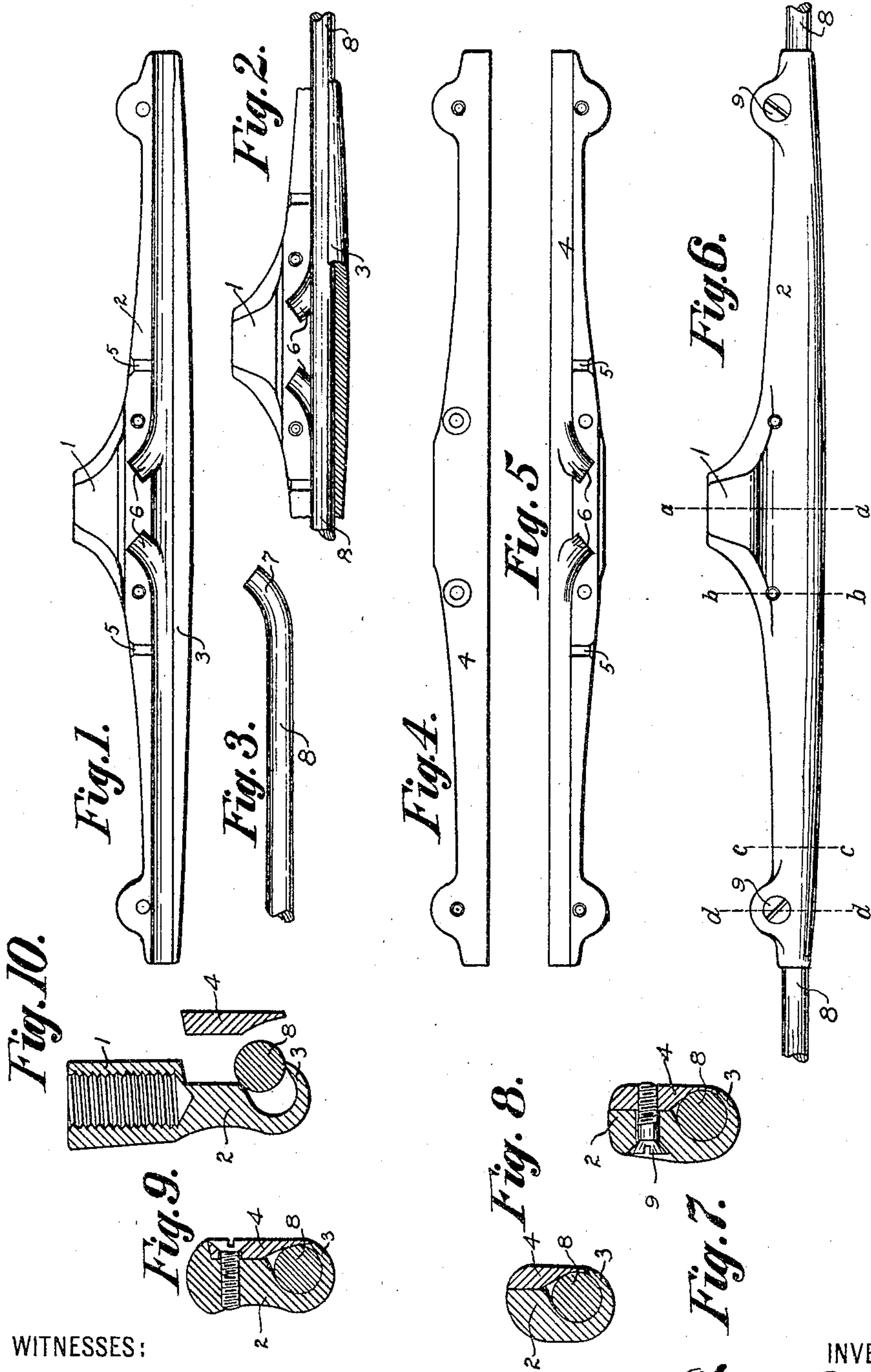
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COMBINED TROLLEY WIRE SPLICE AND SUPPORT.

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NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## COMBINED TROLLEY-WIRE SPLICE AND SUPPORT.

SPECIFICATION forming part of Letters Patent No. 773,621, dated November 1, 1904.

Application filed February 15, 1904. Serial No. 193,758. (No model.)

*To all whom it may concern:*

Be it known that I, ALONZO B. ALLISON, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in a Combined Trolley - Wire Splice and Support; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a side elevation of the ear-plate, showing the cap removed. Fig. 2 is a side elevation of a portion of the ear-plate, showing the wire properly located and illustrating the cap removed. Fig. 3 is a view showing a portion of the trolley-wire bent to be connected to the splice or support. Fig. 4 is a view showing the outer face of the cap. Fig. 5 is a view showing the inner face of the cap. Fig. 6 is a side elevation of the ear-plate, showing the wire properly located with reference thereto. Fig. 7 is a transverse section on line *d d*, Fig. 6. Fig. 8 is a transverse section on line *c c*, Fig. 6. Fig. 9 is a transverse section on line *b b*, Fig. 6. Fig. 10 is a transverse section of the ear-plate, showing a transverse section of the wire and the wire in position to be seated into its groove, also showing the cap detached, this figure being a transverse section on line *a a*, Fig. 6.

The present invention has relation to a combined trolley-wire splice and support; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the ear, which is screw-threaded and is for the purpose of attaching the plate 2, together with the different parts carried thereby, to a proper support or arm, which support or arm forms no particular part of the present invention, as it will be understood that any kind of support may be employed, as the only object desired, so far as the present in-

vention is concerned, is to provide some means for holding the plate 2, together with the different parts carried thereby, in proper position, which supports and carries the trolley-wire.

The plate 2 is provided with the curved flange 3, which curved flange is formed of a length to correspond substantially with the length of the plate 2, and of course the ends of the flange 3 should be tapered, so as to not interfere with the movement of a trolley-wheel as it passes from the wire and comes in contact with the curved flange 3.

The curved flange 3 is so formed or bent that in order to place the trolley-wire in position (illustrated in Figs. 7, 8, and 9) the extended portion will have to be sprung slightly in order to allow the trolley-wire to become seated against the concaved face of the flange, by which arrangement the trolley-wire and the ear-plate 2 are temporarily connected together.

For the purpose of preventing any relative movement as between the support proper and the trolley-wire solder is applied before the cap 4 is placed in position, and after the cap has been placed in proper position, as illustrated in Figs. 7, 8, and 9, solder is poured into the apertures 5, thereby producing a solid connection between the ear-plate 2, its cap 4, and the trolley-wire.

When the support is to be attached at a point where the trolley-wire is separated, or, in other words, for the purpose of connecting two sections of wire together or splicing the wire or coupling the same, the ear-plate 2 and the cap 4 are provided with the curved grooves 6, said curved grooves being formed in the ear-plate 2 and the cap 4, so that when the cap 4 is properly attached the grooves will be opposite each other and the curved ends 7 of the trolley-wire 8 will be properly located in the grooves, it being understood that the wire-sections are to be placed in position before the cap 4 is connected, and after the cap is properly connected solder is applied, the solder being poured into the apertures 5.

It will be understood that no change in the construction of the ear-plates is necessary, regardless of their use either as a support or



as a coupler or a splice, owing to the fact that the grooves 5 do not interfere in any manner whatsoever when the device is to be used to support the wire at points intermediate the ends of the section, this feature being clearly illustrated in Fig. 2.

For the purpose of properly connecting the cap 4 to the ear-plate 2 screws 9 are employed. In the drawings four screws are employed or used, the end screws having the heads located against the ear-plate 2 and the center screws having their heads located against the cap 4. However, this may be reversed without departing from the nature of the present invention; but in use the connecting-screws should be located so that all of their heads will not come against one part—that is to say, all of the heads should not come against the ear-plate 2 or against the cap 4, but the screws located in opposite directions.

The cap 4 is so formed that when placed in position it will assist in holding the solder and at the same time assist in holding the wire in proper relative position.

It is well understood that in use the trolley-wire should present as near as possible a uniform surface for the travel of the wheel, so that the wheel will not be liable to be thrown from the trolley-wire, and in order to accomplish this the under side of the flange 3 is formed to correspond substantially with the form of the trolley-wire proper and of sufficient thinness to not interrupt the travel of the wheel along the wire at the points where the wire is supported, spliced, or coupled.

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

1. The combination of an ear-plate provided with a curved flange, said curved flange formed of yielding or spring material, a cap secured to the ear-plate and a trolley-wire located upon the convexed side of the curved flange all arranged, substantially as and for the purpose specified.

2. The combination of an ear-plate having a curved flange and a detachable cap, the cap and ear-plate having curved grooves the grooves of the ear-plate extended from the convexed edge or face of the curved flange of the ear-plate, solder-apertures formed in the ear-plate and cap, and means for attaching the ear-plate and cap together, substantially as and for the purpose specified.

3. The combination of an ear-plate and a trolley-wire, said ear-plate provided with a curved flange formed of spring material and adapted to hold the trolley-wire independent of the cap, a cap secured to the ear-plate and the cap and ear-plate provided with curved grooves and solder-apertures, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ALONZO B. ALLISON.

Witnesses:

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F. W. BOND.