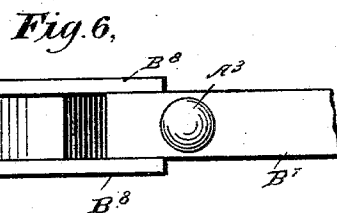
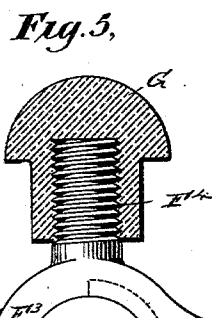
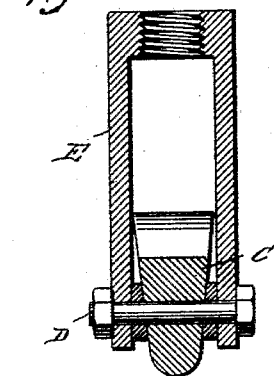
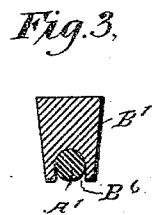
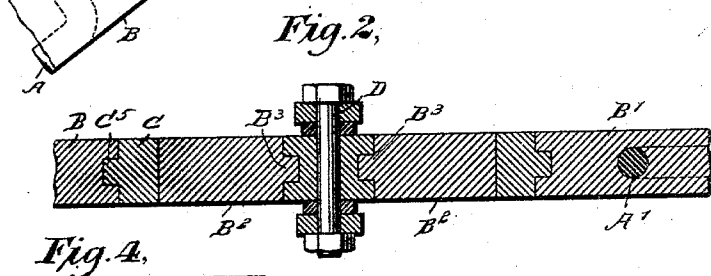
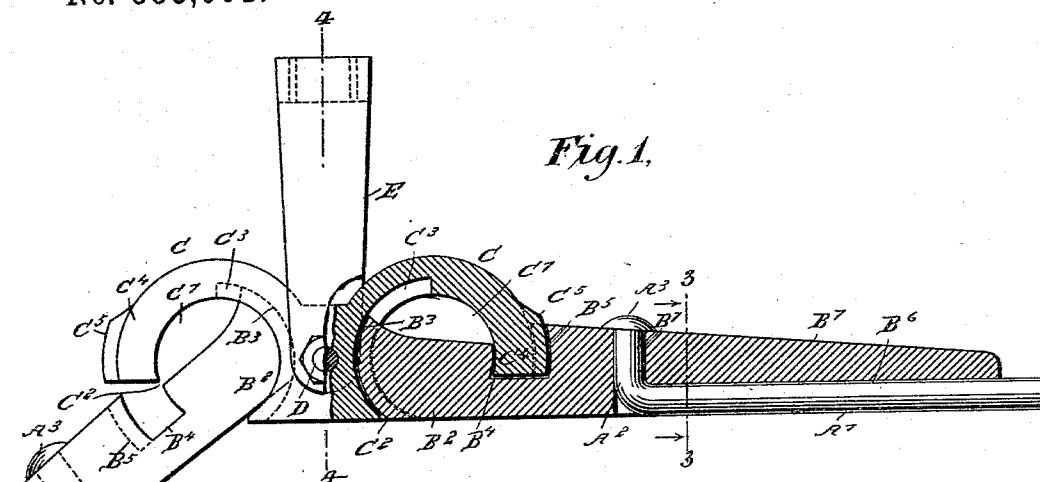


(No Model.)

T. FLETCHER.
TROLLEY CUT-OUT.

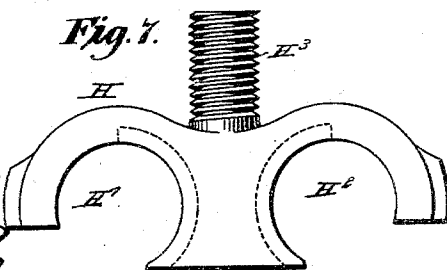
No. 553,061.

Patented Jan. 14, 1896.



WITNESSES:

Edward Thorpe.
[Signature]



INVENTOR
T. Fletcher
BY
Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

THEODORE FLETCHER, OF IDLEWILD, TEXAS.

TROLLEY CUT-OUT.

SPECIFICATION forming part of Letters Patent No. 553,061, dated January 14, 1896.

Application filed March 28, 1895. Serial No. 543,509. (No model.)

To all whom it may concern:

Be it known that I, THEODORE FLETCHER, of Idlewild, in the county of Bexar and State of Texas, have invented a new and Improved Trolley Cut-Out, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved cut-out designed for use on trolley-wires, electric light and power wires, and telegraph-wires, the cut-out being arranged to reduce the danger from such wires incident to the breaking of the live wires.

The invention consists of a hanger made in sections coupled together and adapted to automatically uncouple as soon as the live wires break between adjacent hangers.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement with part in section. Fig. 2 is a sectional plan view of the same. Fig. 3 is a cross-section of the same on the line 3 3 of Fig. 1. Fig. 4 is a similar view of the same on the line 4 4 of Fig. 1. Fig. 5 is a side elevation of the improvement as arranged as a single hanger, part being in section. Fig. 6 is a plan view of one of the sections, and Fig. 7 is a side elevation of a modified form of the center piece.

The trolley-wire is made in sections A A', of which the adjacent ends are secured in the side sections B B', having a pivotal connection with the center piece C, connected by a bolt D with a supporting-piece E attached to the cross-wire for carrying the trolley-wire, the said cross-wire being supported in the usual manner on poles or by other means. Each side section B and B' is formed with a head B² adapted to pass into a segmental recess C', curved at the bottom at C² so that the head B² can readily slide out of the center piece at the time the wire breaks and swings to the ground between adjacent hangers. (See section B, shown in Fig. 1.)

In order to insure a proper connection between each side section B or B' and the cen-

ter piece C, I form the end of the head B² with a rib B³ fitting into a correspondingly-shaped groove C³ arranged in the center piece, as plainly indicated in the drawings. The free end C⁴ of the center piece C fits into a corresponding notch B⁴ in the head B², and a tongue C⁵, formed on the said free end, engages a corresponding groove B⁵ in the section B or B'. By this arrangement a perfect contact between the sections B and B' and the center piece C is established to insure proper transmission of the electric fluid. It is understood that the support E may be insulated from the center piece C of the hanger, but need not be insulated and usually is fastened to an insulator suspended from the cross-wire, or in any other suitable manner.

As illustrated in the drawings, the wires A and A' are fitted at their ends into longitudinally-extending recesses B⁶, formed in the under side of the sections B B', the inner ends of the recesses B⁶ terminating in an aperture B⁷, through which passes the bent end A² of the wire to be riveted on the top of the said section B or B', as at A³. Instead of making the hanger double, as indicated in Figs. 1 and 2, it may be made single, as shown in Fig. 5, and in this case the side sections F and F' have their heads F² and F³ fitted one into the other in the same manner as described above in reference to Fig. 1, in which the heads B² fit into the center piece. The section F' is for this purpose provided with a curved head F³, having an opening in its bottom for the passage of the head F² at the time the section F swings downward by the breaking of the wire, it being understood, however, that in this case the electricity passes in the direction of the arrow a' through the hanger. The section F is provided in its top with a threaded projection F⁴, carrying a glass head G for attachment to the cross-wire. Instead of the rib B³ and the tongue C⁵, I may provide the sections with side flanges B⁸, as indicated in Fig. 6.

As shown in Fig. 7, the support for the center piece H is made by a threaded projection H³ instead of the support E; but otherwise the center piece H is similar to the center-piece C, having the heads H¹ and H² to receive the heads B² of the side pieces B and B'.

Now it will be seen that if a wire should break the line at once swings down and the side piece connected with the broken end uncouples from the center piece C and falls to the ground, so that the broken wire becomes dead.

It is understood that telegraphic, power, and other wires may be provided with hangers of the construction described, so that no serious damage is caused by any one of them falling on a trolley-wire, for it would at once become disconnected and drop to the ground. The advantage of the double hangers for trolley systems is that both of the wire sections uncouple, whereas with the single hanger only the live end of the wire uncouples at the preceding place of suspension.

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

1. A trolley cut-out, provided with a hanger comprising side pieces, and a center-piece coupled with the heads of the side pieces and formed with openings in the bottom, to permit the heads to drop out of the center-pieces, the heads of the side pieces having segmental ribs at the end to engage in segmental grooves

in the center piece, substantially as shown and described.

2. A trolley cut-out, provided with a hanger made of two side pieces, one of which is formed with a segmental head having an opening at the bottom and a segmental rib near the free end, and the other is made with a head coupled with the segmental head and having a segmental groove to engage the segmental rib and adapted to drop out of the opening in the bottom, substantially as shown and described.

3. A trolley cut-out, comprising a center-piece formed with a segmental head with an opening at the bottom, a segmental groove and a segmental rib near the free end, and a side piece connected with the wire section and having a head formed with a rib for engagement with the said segmental groove, the said head being also provided with a notch and a recess to receive the free end of the center-piece head and its rib, substantially as shown and described.

THEODORE FLETCHER.

Witnesses:

D. M. SHOOK,

C. H. SHOOK.