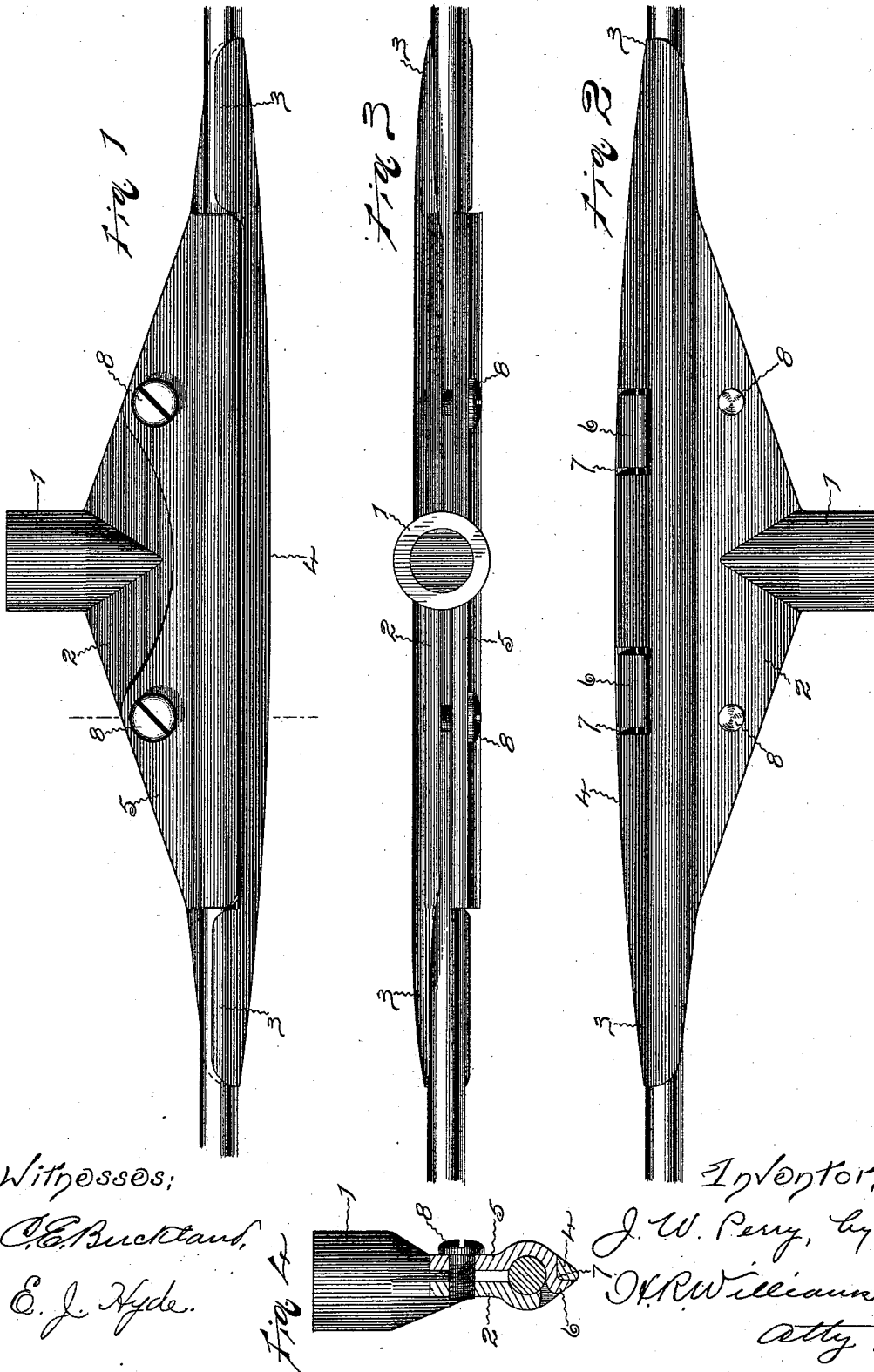


(No Model.)

J. W. PERRY.
TROLLEY WIRE CLIP.

No. 528,561.

Patented Nov. 6, 1894.



UNITED STATES PATENT OFFICE.

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TROLLEY-WIRE CLIP.

SPECIFICATION forming part of Letters Patent No. 528,561, dated November 6, 1894.

Application filed May 5, 1894. Serial No. 510,143. (No model.)

To all whom it may concern:

Be it known that I, JAMES WILLIAM PERRY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Mechanical Clips, of which the following is a specification.

The invention relates to the class of clips that are detachably clamped to trolley or other similar wires and connect them with the supporting bells or insulators; and the object is to provide a simple, cheap and strong clip which can be quickly made to tightly grasp and securely hold a wire, or be released therefrom, without disturbing the wire or its connections, and which can be so constructed that it can be connected with or disconnected from any common form of insulator without removing the insulator from position on its support.

Referring to the accompanying drawings; Figure 1 is a view of one side of the clip. Fig. 2 is a view of the other side. Fig. 3 is a plan, and Fig. 4 is a section of the same.

The body of the clip illustrated in the views, which is usually cast to shape of any suitable metal having the requisite strength, has a cylindrical part 1 which is preferably tapped for receiving the threaded stem of any common form of bell or other standard supporting insulator, upon which threaded stem this tapped socket may be screwed before or after the insulator has been placed in position, as is most convenient. Of course, the part 1 may be threaded on the exterior so that it may be screwed into a tapped part of the insulator, if desired. Extending from this part 1 is an elongated web 2, the long edge of which is curved or bent around so as to form a part of the wall of the wire-holding trough or pocket. It is preferred that the ends 3 of this web be bent around to such an extent that they will pass beneath the wire which they are to support so that the wire cannot drop out of the pocket or trough. The contour of the long trough edge of the web from one end 3 to the other end 3 is made on a curve so as to provide an easy tread or run 4 for the trolley or other wheel as it passes along the clip, the ends preferably having feather

edges so as to offer no obstruction or unevenness which would cause the wheel to jump or jar at the clip and spark or produce undue strain on the wire. The other part of the wall of the wire trough or pocket is formed by a curved portion of a clamp plate 5. This clamp plate has on one edge one or more projecting ears or fingers 6 that are formed to pass through and hook against the walls 7 of openings made for them in a part of the web. These openings through which the fingers pass are usually made near the bottom edge of the web adjacent to the trough so that the fingers that thus hinge or hold one edge of the clamp plate in position will lie near the wire. The other edge of the clamp plate is secured to the web by bolts or screws 8.

The outside contour of the lower edge of the clamp plate where it fits the other part conforms to the configuration of the clip so that a trolley wheel will run smoothly past the clip. The fingers that loosely hold the lower edge of the clamp plate in position act as a fulcrum when the upper edge of the clamp plate is drawn to the web by the screws or bolts, so that great force can be employed for securely clamping and holding any portion of a wire that is placed in the trough or pocket of the clip between the two parts. Of course it will be understood that the fingers may be made on either part and the openings for them made in the other part, as desired, without departing from the invention.

It is desirable that the fulcrum fingers that hinge one edge of the clamp plate should be made close to the wire pocket or trough and that the clamping screws or bolts pass through the parts at a farther distance away in order that a strong leverage may be obtained for drawing the parts together and insuring a secure clamping of the wire between them. The gripping of a wire clamped in this manner is so strong that should the wire become broken on either side of the clip, it cannot pull from the clip and drop down on the side that is unbroken. When, however, the screws or bolts are loosened, the clamping plate is released and can be quickly taken away, so that a wire may be removed from the clip without taking the clip from the bell or insulator.

A clip made in this manner is cheap, easily put together or taken apart and, being simple and substantial, it is not liable to become damaged or disarranged. Wires supported by this clip are firmly and securely held without any danger of their accidentally pulling away or breaking from the trough or pocket, but wires thus held can be released from this clip very quickly at any time desired by removing the clamping screws or bolts without disturbing the wire or removing the clip from the bell or insulator.

The clip can be quickly made to tightly grasp any wire and may be removed from any wire that it holds without disturbing the wire or the insulator, and the trolley or other wheel will pass this clip in such a manner that the least possible amount of strain or wear will come upon the wire where it is connected with the insulator, thus lengthening the life of the wire and the insulator.

I claim as my invention—

1. A clip having means for attachment to an insulator, and a trough or pocket for the wire, the walls of said wire pocket being formed by separate parts that are held together on one side of the wire by a non-adjustable fastening and on the other side of the wire by an adjustable fastening, substantially as specified.

2. A clip having means for attachment to an insulator, and a trough or pocket for the wire, the walls of said wire pocket being formed by separate pieces that are held together on one side of the wire pocket by fingers on one part engaging openings on the other part and on the other side of the pocket by clamping bolts or screws, substantially as specified.

3. A clip having a body consisting of a screw socket and an elongated web with a curved recess forming a portion of the wall of the wire pocket, the ends of the curved portion of the web only being bent around to pass under and up on the opposite side so as to support the wire without the aid of the clamp plate, a clamp plate having a curved recess forming the other portion of the wall of the wire pocket and holding the wire in the pocket, and fastenings for holding the body and the clamp plate together, substantially as specified.

4. A clip having a body consisting of a screw socket and a web with a curved recess forming a portion of the wall of the wire pocket, a clamp plate forming the other portion of the wall of the wire pocket, with fingers loosely engaging with openings in the web for fastening one edge of the clamp plate to the body, and screws for fastening the other edge of the clamp plate to the body, substantially as specified.

5. A clip formed in two parts with a wire pocket between them, one part being loosely hinged to the other part on one side of the wire pocket, and a removable fastening on the other side of the wire pocket for drawing the parts together so that they will bite the wire between them, substantially as specified.

6. A wire clip formed in two parts with a wire pocket between them, one part having a tread curved from end to end on the bottom and the other part removably held to the first part so that they will bite the wire between them, substantially as specified.

JAMES WILLIAM PERRY.

Witnesses:

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CHARLES W. SPARHAWK.