

G. R. DUNN.
TROLLEY CAR POLE ATTACHMENT.
APPLICATION FILED OCT. 13, 1909.

971,494.

Patented Sept. 27, 1910.

Fig. 1.

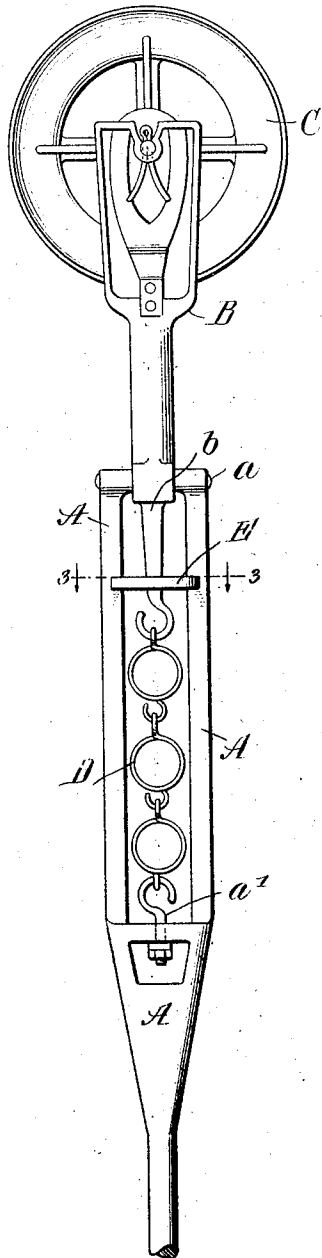


Fig. 2.

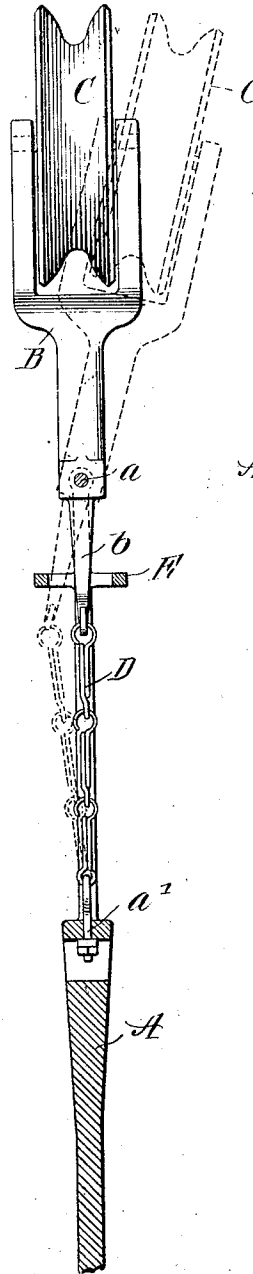
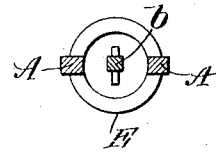


Fig. 3.



WITNESSES

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GEORGE R. DUNN, OF SAN PEDRO, CALIFORNIA.

TROLLEY-CAR-POLE ATTACHMENT.

971,494.

Specification of Letters Patent. Patented Sept. 27, 1910.

Application filed October 13, 1909. Serial No. 522,379.

To all whom it may concern:

Be it known that I, GEORGE R. DUNN, a citizen of the United States, and a resident of San Pedro, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Trolley-Car-Pole Attachments, of which the following is a specification.

My invention is an improvement upon the one for which I have received Letters Patent of the United States, No. 882,495, dated March 17, 1908.

My present improvement is a safety attachment for the frame of the apparatus, by which the movement of the frame relative to the forked bar carrying the trolley-wheel is limited, so that the wheel will maintain its proper position relative to the wire even if the spring chain connected with the harp should break or become detached.

The invention is illustrated in the accompanying drawing, in which—

Figure 1 is a side elevation of the same; Fig. 2 is a longitudinal section thereof; and Fig. 3 is a horizontal section on the line 3—3 of Fig. 1.

In my present invention as in the former one, I employ a slotted frame A in whose head a forked bar B, carrying the trolley wheel C, is pivoted so that the frame may assume an angle to said bar and wheel, as shown in Fig. 2. The shank *b* of said bar B extends below the pivot and is provided with a hook with which a spring chain D is engaged, the lower end of said chain being detachably connected at *a'* with the shank of the frame A. The wheel is thus adapted to

keep its vertical position when following the conducting wire in passing around curves, etc., the bar B being allowed to swing laterally and assume an obtuse angle to the frame A, as shown by dotted lines in Fig. 2. The spring chain allows this lateral movement, and in my former invention there was no limit to such movement save the tension of the chain. In my present invention, however, I employ a safety attachment comprising a ring E through which the shank *b* of the wheel-carrying bar B passes and in which it is free to move laterally so far as permitted by the diameter of the ring. The latter is provided with lateral slots or notches that receive the inner edges of the members of the forked frame A and it is secured in position adjacent to the lower end of the shank *b* of the bar B. It will be seen that the ring E serves as a guard or safety attachment which will permit due lateral swing of the bar B so that all curves can be turned safely even if the chain D should be broken or become detached.

What I claim is:—

The improved trolley-pole attachment comprising a slotted frame provided with a fixed, transverse ring a short distance below its head, a trolley wheel bar pivoted in said head and provided with a shank extending through the said ring, and a spring chain connecting the shank with the lower portion of the frame, as shown and described.

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Witnesses:

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