(No Model.)

W. L. PEPPER.

TROLLEY.

No. 574,819. Patented Jan. 5, 1897.

Fig 3.

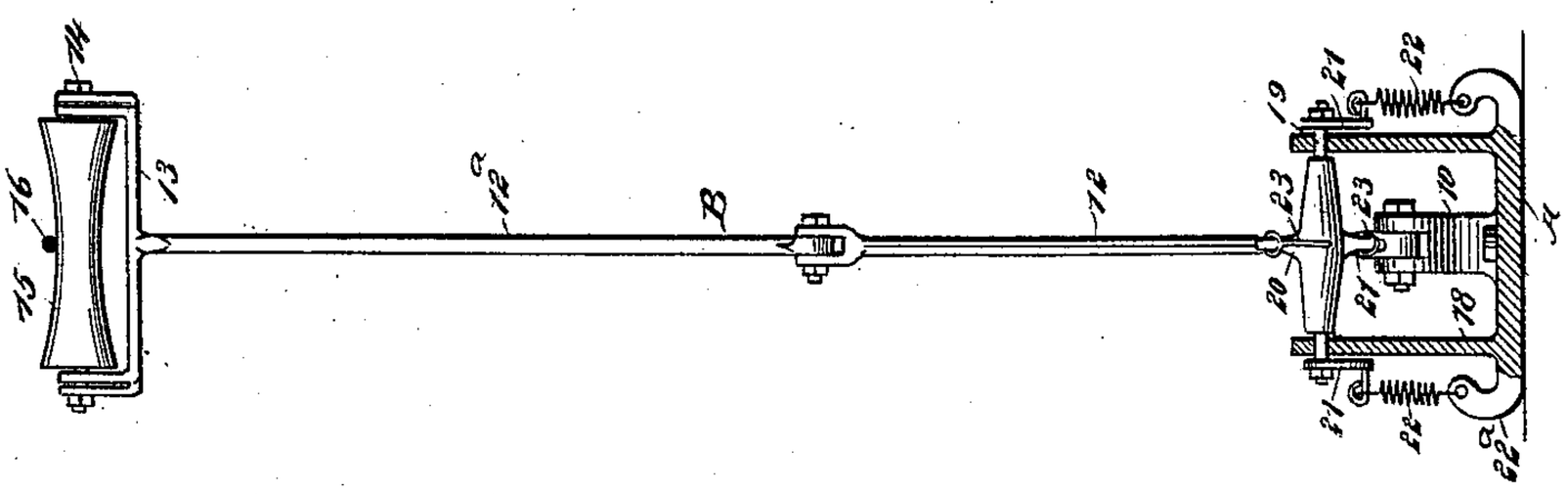


Fig 2.

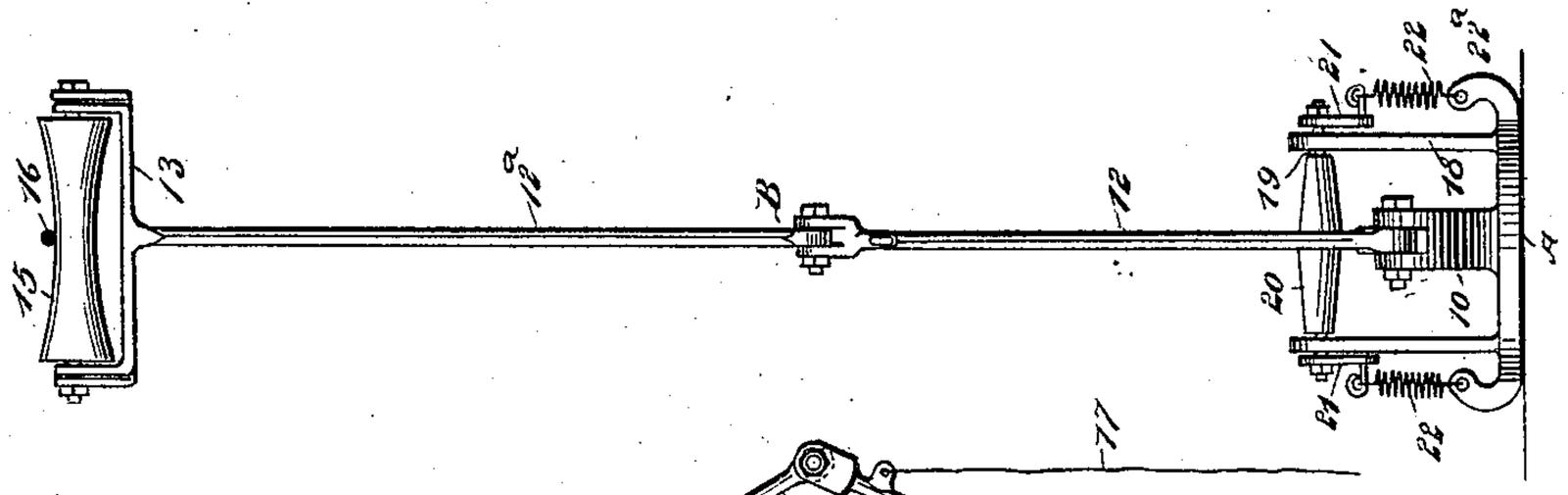
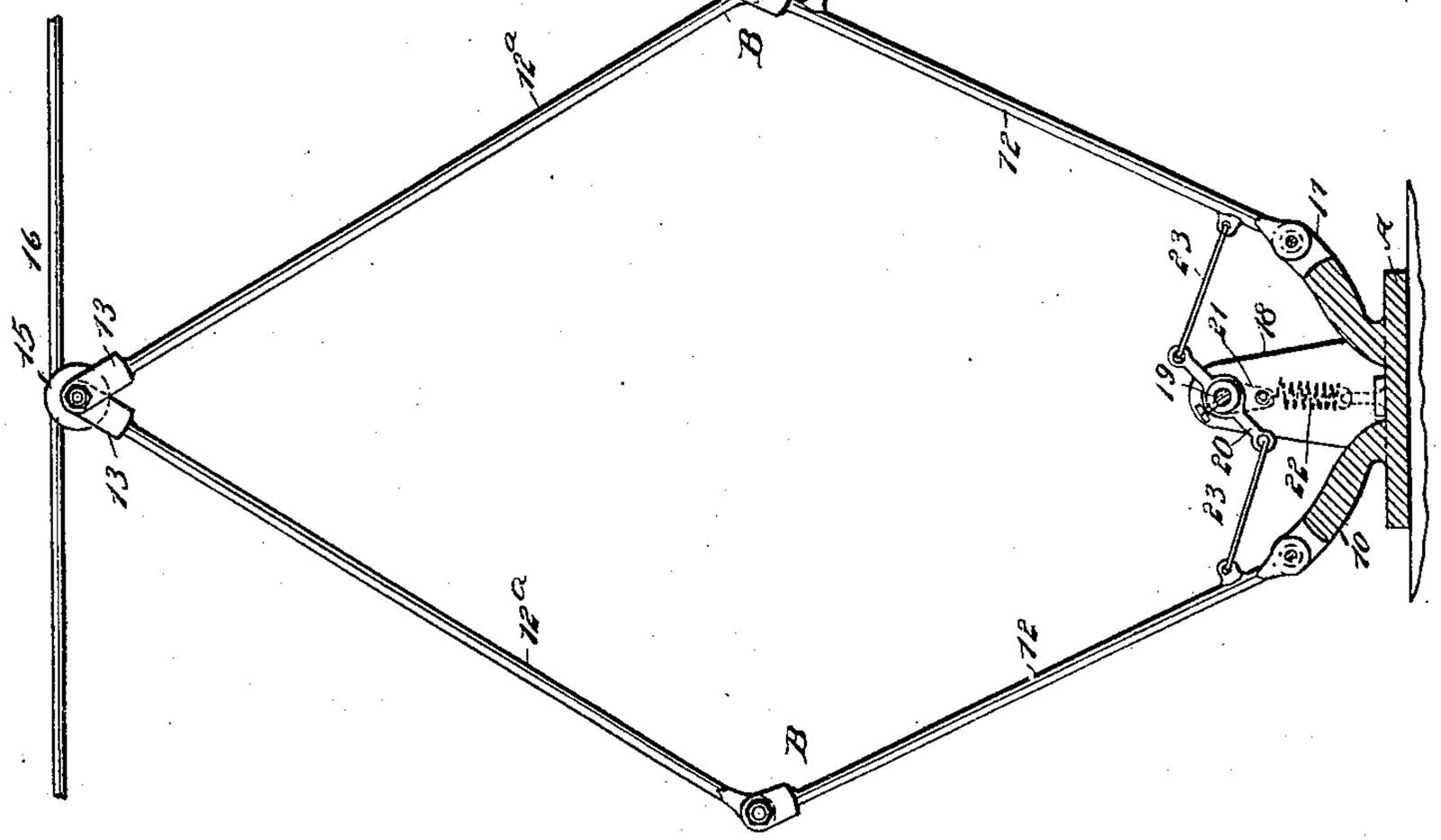


Fig 1.



WITNESSES:

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WILBUR LEE PEPPER, OF PHILADELPHIA, PENNSYLVANIA.

TROLLEY.

SPECIFICATION forming part of Letters Patent No. 574,819, dated January 5, 1897.

Application filed April 2, 1895. Serial No. 544,173. (No model.)

To all whom it may concern:

Be it known that I, WILBUR LEE PEPPER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Trolleys, of which the following is a full, clear, and exact description.

My invention relates to an improvement in trolley-poles, and especially to an improvement in what are known as "twin" or "dual" trolley-poles, both poles to be carried by a single car and both to be united for contact with a trolley-wire.

The object of this invention is to provide a simple and economic device whereby both trolley-poles may be made to leave the wire at the same time and simultaneously return for contact with the wire, and, furthermore, to so construct the trolley-poles that they will unite in supporting a trolley-wheel, which may be made much longer than those in common use.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is a side elevation of the device, the base being in section. Fig. 2 is an end view of the device, and Fig. 3 is a vertical transverse section taken near the center of the base of the device.

In carrying out the invention the base-plate A is provided, which plate is secured to the top of the car, and the said base-plate carries two standards 10 and 11, extending in direction of opposite ends of the car, whereby the said standards are made to diverge at their upper ends. Each standard has pivotally attached to its upper extremity a trolley-pole B, and each pole is made in two sections 12 and 12^a, the sections being pivotally connected or hinged, and the upper sections 12^a of the trolley-poles are made to terminate at their upper ends each in a yoke 13, and these yokes are pivotally connected by the trunnions 14 of a trolley-wheel 15, located between the members of the yokes, as shown in Fig. 2, and the said trolley-wheel is concaved, being narrowest at its center, in order that the trolley-wire 16 may contact, virtually, with the central portion of the wheel.

The lower section of one of the trolley-arms is provided with the usual cord 17, which extends downward within reach of the conductor or other person appointed to control the trolley. At each side of the said base-plate, opposite the space between the center of the trolley-supporting standards 10 and 11, uprights 18 are erected, and in said uprights a shaft 19 is journaled, having secured thereon at its center, between said trolley-arms B, a lever 20, the lever being made to extend an equal distance beyond opposite sides of the shaft.

The shaft is provided at each outer end with a crank-arm 21, and each crank-arm has attached to it a spring 22, the said springs being attached to lugs 22^a, made to extend from the base, as shown in Figs. 2 and 3, and each end of the lever 20 is connected with the lower member of a trolley-arm B near its pivotal connection with the base by means of a link 23 or its equivalent. The springs 22 normally hold the crank-arms 21 in a vertical position, and consequently the lever 20 in a diagonal position with respect to the base, and the influence of the lever on the trolley-arms will be to hold the arms in such manner as to bring the wheel 15 against the trolley-wire, the lower links and pivoted sectional arms constituting a toggle connection between the base and the trolley-arms, and the two trolley-arms, taken in connection with the base, form substantially a lozenge figure.

It is evident that when downward tension is exerted upon the rope or cord 17 to draw one of the trolley-arms downward the lever 20 will be straightened, and consequently the opposing trolley-arms will be spread apart at the same time and the trolley-wheel 15 will leave the trolley-wire.

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

1. The combination, with oppositely-disposed trolley-arms, each constructed in pivoted sections, the upper sections of the arms being pivoted to the trolley-wheel and the lower sections of the arms pivotally attached

to a support, of a shaft journaled between the trolley-arms, provided with spring-controlled crank-arms at its ends, a lever carried by the said shaft, and a link connection between the ends of the lever and the lower sections of the said trolley-arms, substantially as shown and described.

2. The combination with a base, oppositely-arranged trolley-arms pivoted to the base, the said arms being constructed in pivotally-connected sections, and a trolley-wheel mounted in the upper ends of the upper sections of the said arms, of a shaft between the trolley-arms and provided with crank-arms at its ends, springs secured to the crank-arms and to the base, a lever secured at the center of its length to the shaft, and links connecting the ends of the lever with the lower sections of the trolley-arms, substantially as herein shown and described.

WILBUR LEE PEPPER

Witnesses:
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