

(No Model.)

J. H. DICKINSON.
AERIAL TRAMWAY.

No. 570,387.

Patented Oct. 27, 1896.

Fig. 2.

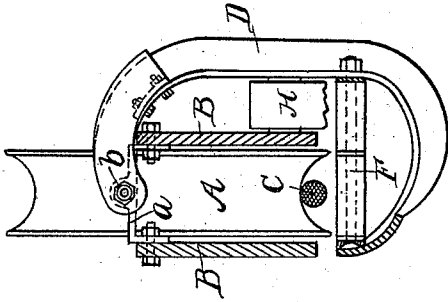


Fig. 9.

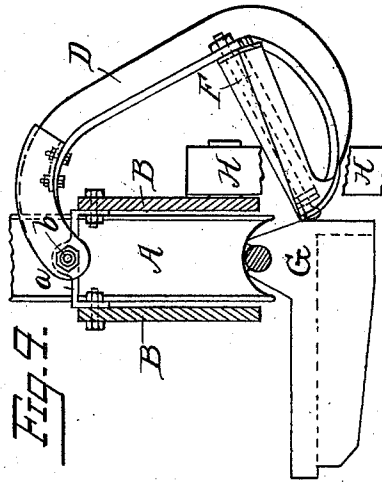


Fig. 1.

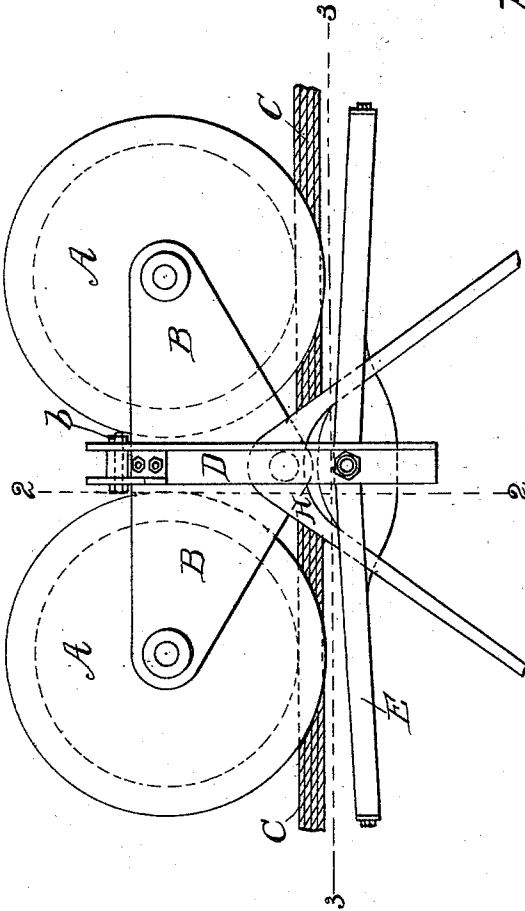
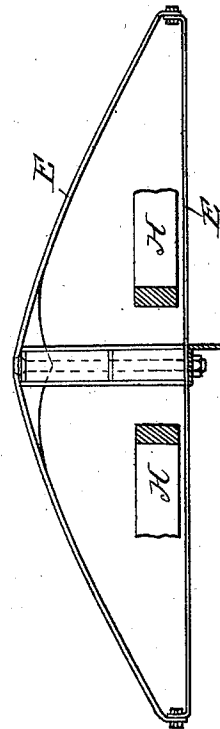


Fig. 3.



Witnesses.

Albert Popkins.
Alfred T. Loege.

Inventor
Joseph H. Dickinson,
by *[Signature]*
Attorney

UNITED STATES PATENT OFFICE.

JOSEPH H. DICKINSON, OF TRENTON, NEW JERSEY.

AERIAL TRAMWAY.

SPECIFICATION forming part of Letters Patent No. 570,387, dated October 27, 1896.

Application filed September 1, 1896. Serial No. 604,551. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HAINES DICKINSON, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Aerial Tramways; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in aerial tramways, and its object is to provide safety-guards for preventing the traveling carriage from leaving the tram-rope in cases of violent shock to the carriage.

In the accompanying drawings, Figure 1 represents a side view of the carriage embodying my invention. Fig. 2 represents a cross-section of said carriage, taken on the line 2 2 of Fig. 1, showing the guard in its normal position. Fig. 3 represents a plan view of my guard on the line 3 3 of Fig. 1; and Fig. 4 represents a cross-sectional view of a carriage provided with my invention, taken on line 2 2 of Fig. 1, showing the guard deflected as it passes a saddle.

Similar letters of reference indicate similar parts throughout the several views.

A A are the wheels of the carriage.
B B indicate the side of the carriage-frame in which are journaled the wheels.

C indicates the tram-rope.

D is the vertical frame of the guard.

E is the deflector-frame, attached to the vertical guard-frame D.

F is a roller supported by the guard-frame.

G is a saddle for supporting the tram-rope, and H is the hanger, by means of which the bucket or carriage-body is attached to the carriage-frame.

The carriage-frame is, as shown, of simple construction, and consists of the side plates

B B, connected together at their upper portion between the wheels by a channel-plate *a*, and the wheels are journaled in these side plates, as shown in Fig. 1. The channel-plate *a* is provided with a lug or pintle *b*, as shown in Figs. 2 and 4, upon which swings the guard-frame D. This guard-frame, on which is mounted the friction-roller F, is arranged to swing freely on the pintle *b* and has a lateral motion relatively to the carriage-frame. To keep the guard normally in a vertical position and the friction-roller F in a horizontal position beneath the tram-rope C while obviating the necessity of nicely balancing the same, I permit the guard-frame to rest against the upper part of the hanger H when in its normal position. Firmly attached to the guard-frame D is the frame E, bowed as shown in the plan view indicated in Fig. 3.

The operation of my device is as follows: When the carriage is traveling on the tram-rope between the points of support thereof, the guard maintains its position, as shown in Fig. 2, and the roller F travels beneath the tram-rope C. In the event of any sudden shock to the carriage or deflection of the tram-rope the roller F, being held beneath the tram-rope, prevents all possibility of derailment of the carriage, friction of the guard with the tram-rope being obviated by the easy turning of the roller. When the carriage is about to pass one of the saddles G or points of support of the tram-rope, one end of the bowed side of the frame E comes in contact with the saddle, and as the carriage moves the guard-frame D is laterally deflected, as shown in Fig. 4. As soon as the middle portion of the frame E has passed the saddle the guard D is restored to its normal position as the latter half of the bowed frame passes the saddle.

Having thus described my invention, what I claim is—

1. In an aerial tramway, a carriage adapted to travel thereon, in combination with a guard normally extending beneath the tram-rope,

and a bowed or tapered frame adapted to contact with the supports of the tram-rope, and deflect the guard laterally and upwardly during the period of contact; substantially
5 as shown and described.

2. In an aerial tramway, a carriage adapted to travel thereon, in combination with a laterally-deflectable guard normally extending beneath the tram-rope, and provided with a

roller and a bowed or tapering frame; substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH H. DICKINSON.

Witnesses:

L. RENÉ VILLARS,
G. SONIAT DU FASSAT.