

(No Model.)

W. F. ELY.  
SUSPENDED TRAMWAY.

No. 304,714.

Patented Sept. 9, 1884.

Fig. 1.

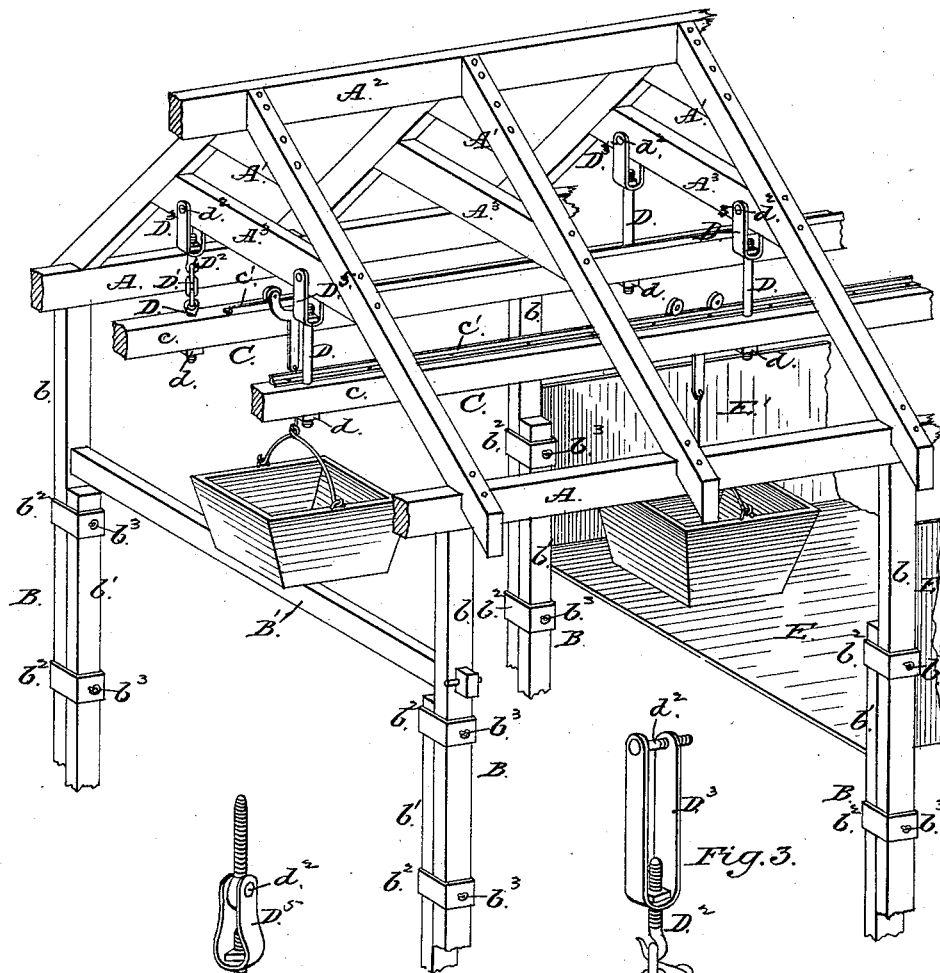


Fig. 2.

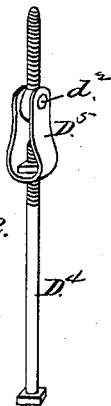


Fig. 3.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## SUSPENDED TRAMWAY.

SPECIFICATION forming part of Letters Patent No. 304,714, dated September 9, 1884.

Application filed July 14, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM F. ELY, a citizen of the United States, and a resident of Afton, in the county of Morris and State of New Jersey, have invented a certain new and useful Improvement in Suspended Tramways, of which the following is a specification.

My invention relates to an improved suspended tramway, the object being to provide an easily-adjustable track, upon which may be run a carrier for transporting earth or other materials for short distances.

It consists of a beam or rail upon which the traveler may run, suspended by means of a swinging adjustable suspending device within an adjustable frame, which may be easily adjusted as to height, and which may be lengthened or shortened at will; and it consists, further, in adding to the frame a protecting shield or guard, in case it is made to cross a street or roadway, the use of the shield being to catch any material which may drop from the carriage and prevent it from obstructing said street or roadway.

In the accompanying drawings, Figure 1 is a view in perspective of a portion of an adjustable frame, a suspended track, and a shield or guard; and Figs. 2 and 3 are detached views of the adjustable suspending devices for securing the track in position.

The frame consists of the sills A A, running parallel with the direction of the track and bridged across at intervals of their length by the trusses A' A', these trusses being tied together by the ridge-piece A<sup>2</sup>. The trusses A' are preferably made, as shown, with cross-tie beams A<sup>3</sup>, and to the tie-beams are suspended the tracks, as hereinafter described. The sills A A are supported at intervals of their length by vertical posts B B, made adjustable as to their length, preferably as shown in the drawings, wherein they are made of two overlapping sections, *b b'*, surrounded by stay-bands *b<sup>2</sup>*, and provided with lagscrews or bolts *b<sup>3</sup>* to secure them when adjusted. A tie beam or brace, B', may be made to connect each pair of supporting-posts in cases where their height renders such additional bracing necessary.

The track C, suspended within the frame, is

preferably made of a beam of wood, *c*, and may be capped with iron strips or rails *c'*, and may be of a shape or size to accommodate any of the well-known traveling carriages now in use, and there may be one or more of these tracks suspended in the one frame. I preferably use two tracks, as a much better result in the working may be thereby secured. The hanger or suspending devices for these tracks may be made as shown in Figs. 2 and 3, the latter, however, being preferable, as it allows a more ready adjustment of the track. It consists of an eyebolt, D, adapted to pass down through the track-beam, and is provided at its lower end with a retaining-nut, *d*. To the eye of the bolt is secured one end of a chain, D', adapted to be secured at its other end to the supporting-truss by means of a hook, D<sup>2</sup>, secured to the truss by a stirrup or open jaw, D<sup>3</sup>, made to embrace the cross-beam of the truss, and secured thereto by a bolt, *d<sup>2</sup>*.

In place of the hanger described there may be used a device, as shown in Fig. 2, wherein the bolt D<sup>4</sup>, passing through the track-beam, may be extended upward and connected directly to the stirrup D<sup>3</sup>, by being made to pass through the loop thereof, and provided with a screw-nut, and this stirrup may be secured to the frame by passing the securing-bolt *d<sup>2</sup>* through the eye of an eyebolt screwed into or attached to the frame. In either case the end sought is to provide a flexible hanger for the track to allow the weight of the load to retain it in its proper position with regard to the traveling carriage, and to allow of its being lengthened or shortened to adjust the height of the track. In certain cases, as when the track crosses a street, sidewalk, or roadway, it is necessary to keep this street or sidewalk free of all obstructions, and this I propose to do by securing a platform-guard, E, between the supporting-posts B B, immediately below the space occupied by the traveling carriage, and to this platform are added the vertical sides E' E'.

My tramway is used as follows: The sills A, with the trusses in position thereon, are mounted upon the supporting-posts B, and the latter are adjusted as to length to bring the frame to the proper height. The track or tracks are

suspended to the trusses and adjusted to the proper height by the adjustable hangers. The shield E is then placed in position, if it is needed, and the tramway is ready for the carriage.

- 5 The brackets or trays for receiving the load are suspended to the carriers, and may either be simple hods or trays, as shown, or may be in the form of an excavating-scoop, or otherwise.

10 I am aware that a swinging-track has heretofore been used, as in a hay-carrier. Therefore I do not claim this idea, broadly.

What I do claim is—

1. The combination, with a suspended tramway, and with the supporting-frame therefor, of adjustable supporting-posts, substantially as  
15 and for the purpose set forth.

2. In a suspended tramway, the combination,

with a rail or track, and with the supporting-frame therefor, of a flexible adjustable hanger, having a chain incorporated within its length  
20 to permit of said adjustment, substantially as and for the purpose set forth.

3. In a suspended tramway, the combination, with the track thereof, of a flexible adjustable hanger, a vertically-adjustable supporting-  
25 frame, and a platform guard or shield, substantially as and for the purpose set forth.

Signed at Madison, in the county of Morris and State of New Jersey, this 8th day of July, A. D. 1884.

WILLIAM F. ELY.

Witnesses:

AMOS C. RATHBUN,  
JOSEPH W. GENTRY.