

(No Model.)

2 Sheets—Sheet 1.

D. S. VAN SLYKE.
TRIPLE TRACK SAFETY RAILWAY.

No. 547,823.

Patented Oct. 15, 1895.

Fig. 1.

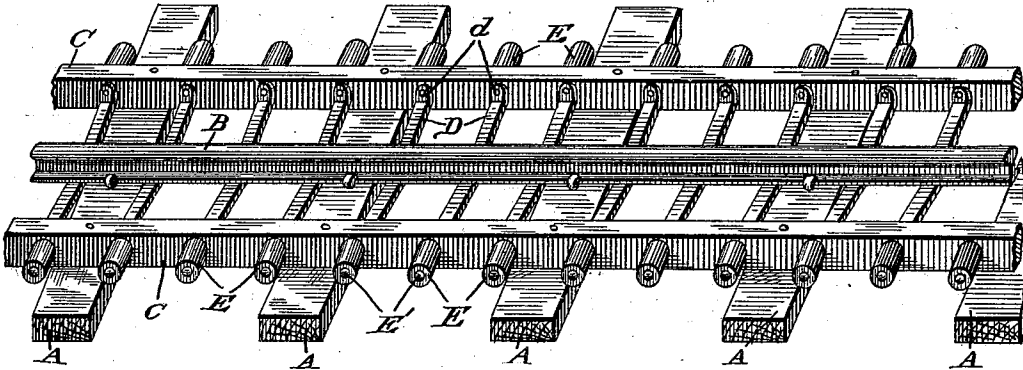


Fig. 2.

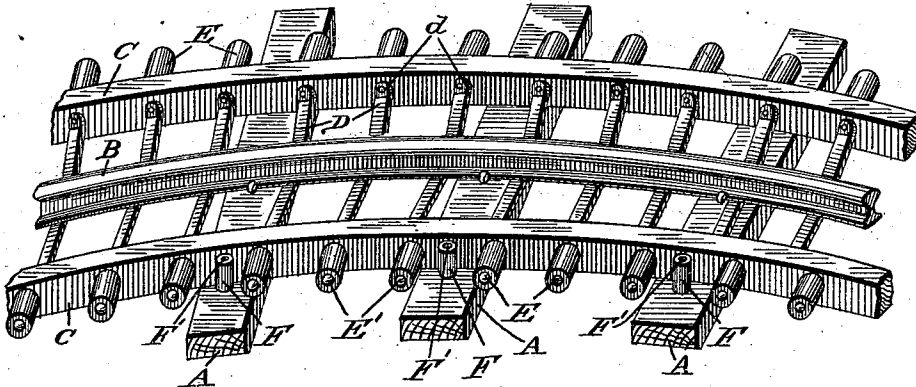


Fig. 3.

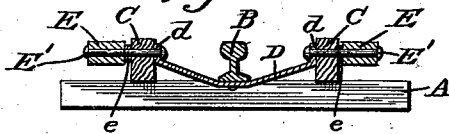


Fig. 4.

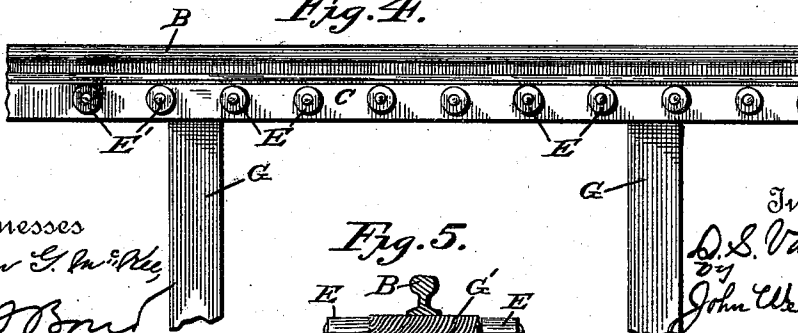
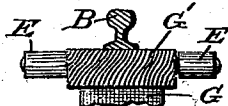


Fig. 5.



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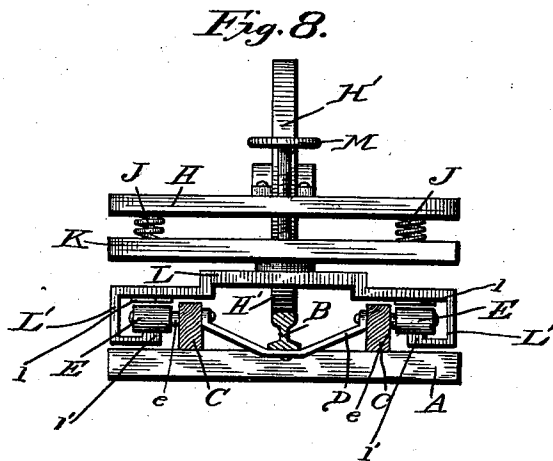
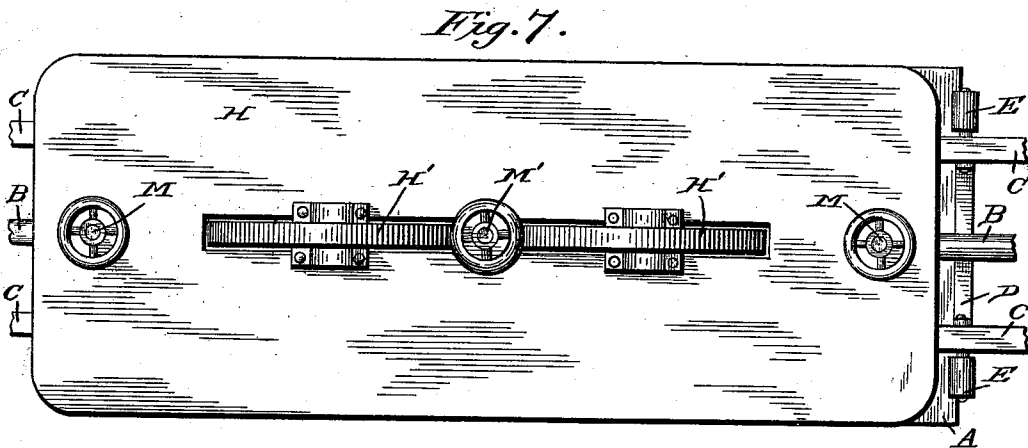
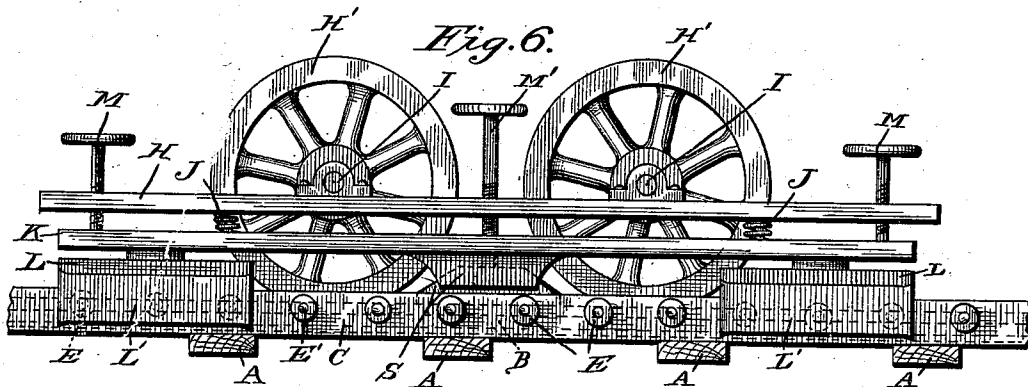
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2 Sheets—Sheet 2.

D. S. VAN SLYKE.
TRIPLE TRACK SAFETY RAILWAY.

No. 547,823.

Patented Oct. 15, 1895.



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UNITED STATES PATENT OFFICE.

DOLPHUS S. VAN SLYKE, OF LOS ANGELES, CALIFORNIA.

TRIPLE-TRACK SAFETY-RAILWAY.

SPECIFICATION forming part of Letters Patent No. 547,823, dated October 15, 1895.

Application filed July 12, 1895. Serial No. 555,723. (No model.)

To all whom it may concern:

Be it known that I, DOLPHUS S. VAN SLYKE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Triple-Track Safety-Railways; and I do hereby 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.

This invention relates to certain new and useful improvements in railways and pertains both to the tracks and to the truck.

It has for its objects, among others, to provide a simple and cheap triple-track railway with positively-acting means for avoiding the wear and tear upon the railway-tracks, to guard against the loss of life, to prevent jumping of the track or the possibility of the truck leaving the rails unless some portion of the truck or track becomes broken, which is not likely to occur.

A further object is to increase the speed attained by a reduction of the tractive force and also to materially decrease the cost of running the same.

The invention is applicable to elevated as well as to surface roads. I provide a central rail, upon which the weight of the car is brought under normal conditions, and side timbers having roller-bearings for the sliding truck, with means for causing the increase of friction thereupon when ascending a steep grade.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of a section of the track embodying the invention. Fig. 2 is a similar view of the track, showing a curve therein. Fig. 3 is a vertical transverse section through the track. Fig. 4 is a side elevation showing its application to an elevated road. Fig. 5 is a vertical cross-section showing a modified form of track. Fig. 6 is

a side elevation showing the truck upon the track. Fig. 7 is a top plan of Fig. 6. Fig. 8 is an end elevation showing the truck upon the track, the latter being in section.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the ties or cross-timbers, to which is secured the centrally-disposed rail B of known form and held in position by any of the well-known means of fastening.

C C are longitudinally-disposed timbers or beams also held to the ties or cross-timbers in any suitable manner parallel with the central rail B. These beams or timbers C are braced by the metallic braces D, the ends of which are flanged, as seen at d, and secured to the inner faces of the said beams, as seen best in Fig. 3, the said braces being inclined toward the center from each end and extended under the central rail, as shown, and secured thereto, if desired, in any convenient way.

E represents horizontally-disposed rollers projecting from the outer faces of the timbers or beams C and mounted on the axles or shafts E', supported in the said beams or timbers, as seen best in Fig. 3. Suitable washers e may be provided upon the said axles or shafts between the outer face of the beam and the inner end of the rollers, as shown in Fig. 3. In Fig. 2 I have shown a curve in the road-bed, and at such points I provide the vertically-disposed rollers F, carried by the vertical shafts or axles F', suitably held in the cross timbers or ties. These are for the purpose of preventing the sliding trucks from crowding against the ends of the rollers E in passing around the curve.

In Fig. 4 I have shown the construction above described as applied to an elevated road, and in this instance the longitudinal timbers and rail are supported on the pillars or uprights G. The central rail is also shown as elevated above the side timbers. In Fig. 5 I have shown a construction in which the central rail and side rollers are all supported upon the longitudinal timber G', this form of construction being designed for a single-track railway and is simply illustrated to show some of the modifications which may be resorted

to without going beyond the scope of the invention.

H represents the upper bed or platform of the car, to which the driving-wheels H' are secured, being carried by the axles I, supported in suitable boxes in the usual manner. These wheels are of course arranged centrally of the truck to travel upon the rail B. This platform or upper bed rests upon the springs J, which are held between the same and the lower platform K.

L is the sliding truck, the opposite ends of which are formed with the downwardly and inwardly extending portions L', having upper and lower wear or bearing plates l and l', as seen best in Fig. 8, and between these plates the rollers E are designed to work, as shown. Near each end of the truck is a screw M, passed through the upper platform or bed and acting upon the lower platform for the purpose of forcing the driving-wheels down on the rail. These screws are adapted to be turned to raise the upper platform and increase the bearing of the plates l' upon the rollers, as will be readily understood.

S is a brake adapted to be forced down upon the central rail, when desired, by the screw-shaft M'.

When the train is on a level or on a down-grade, the weight of the train can, at the will of the trainmen, be nearly or entirely thrown on the center rail, thereby lessening the friction of the rollers and making it possible to attain greater speed with less power. On an ascending grade the screws M are brought into use, drawing upon the sliding truck L and bringing the under side bearing l' thereof up against the rollers E to any extent of power under the control of the trainmen. The portions L' of the sliding truck engaging as they do under the roller E render it almost impossible for a train to be derailed.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is—

1. A railway track having a central rail and

having horizontally-disposed rollers upon the outer sides thereof, substantially as specified.

2. A railway track having a central rail and having horizontally-disposed rollers at the outer sides thereof, and vertically-disposed rollers at the curves, substantially as and for the purpose specified.

3. A railway track having a central rail and parallel side timbers, braces inclined from their ends toward the center and horizontally-disposed rollers mounted on axles supported in the side timbers, as set forth.

4. A railway truck comprising an upper and a lower platform and means for moving the one vertically with relation to the other, as set forth.

5. The combination with the track having horizontally-disposed rollers, of the truck having a sliding frame with portions to embrace said rollers, as set forth.

6. The combination with the track having horizontally-disposed rollers, of the truck having two portions with means for moving the one vertically with relation to the other and the lower one having portions embracing said rollers, substantially as specified.

7. A railway truck having an upper and a lower platform, springs between the two platforms, and screws for moving the one vertically with relation to the other, substantially as and for the purpose specified.

8. The combination with the track having horizontally-disposed rollers, of the truck having two platforms with means for moving the one with relation to the other vertically, the lower portion having inwardly-extending portions with bearing plates at the top and bottom and between which said rollers are adapted to work, substantially as specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

DOLPHUS S. VAN SLYKE.

Witnesses:

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