

W. H. HARRISON.
Elevated Railway.

No. 167,401.

Patented Sept. 7, 1875.

Fig. 1.

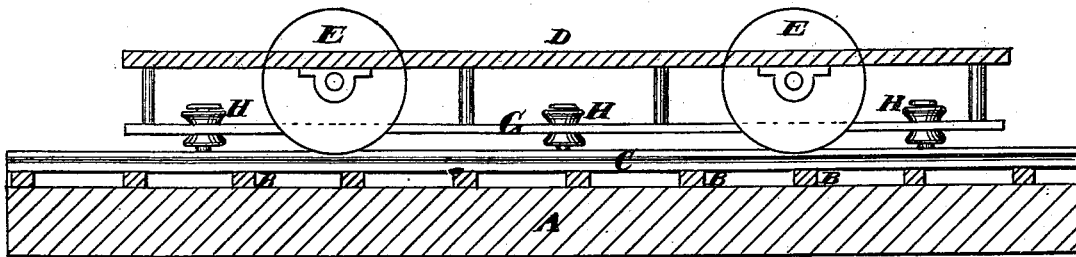
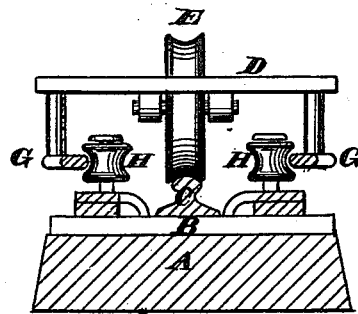


Fig. 2.



Witnesses
Geo. H. Strong.
C. M. Richardson

Inventor
Wm. H. Harrison
By his Atty's
Dewey & Co.

UNITED STATES PATENT OFFICE.

WILLIAM H. HARRISON, OF LIVERMORE, CALIFORNIA.

IMPROVEMENT IN ELEVATED RAILWAYS.

Specification forming part of Letters Patent No. **167,401**, dated September 7, 1875; application filed July 23, 1875.

To all whom it may concern:

Be it known that I, WILLIAM H. HARRISON, of Livermore, Alameda county, State of California, have invented an Improved Railway; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or improvement.

My invention relates to certain improvements in that class of railways which are known as single-track railways; and it consists in a novel means of guiding and steadying the carriage upon its single line of wheels by means of a series of rollers or pulleys, which are fixed upon each side of the rail, while the carriage is provided with a rail upon each side, which successively engages with the pulleys as the carriage passes, and thus maintains it in a proper position.

Referring to the accompanying drawing for a more complete explanation of my invention, Figure 1 is a longitudinal section of my railway and car. Fig. 2 is a transverse section.

A is the road-bed; B, the cross-ties or sleepers upon which the single rail C is laid. The carriage D is mounted upon suitable bearing-wheels, E, which are fitted to run upon the single rail.

In order to give this carriage stability, it will be necessary to guide it at times, although

when running at a high speed upon a perfectly straight line it will be nearly self-sustaining, like a hoop, and will only be thrown off its balance by imperfections in the road.

My guiding device consists of a rail, G, at each side, which is strongly secured to the car in any suitable manner, so that the pair of rails stand opposite each other beneath the level of the car-body. At intervals upon each side of the rail C pulleys H are fixed, so as to turn upon vertical axis, and these pulleys are so grooved that they receive the edge of the rails as they pass, and thus maintain the car in a perfectly horizontal position.

In the present case I have shown the pulleys as secured in pairs to strong metallic base-plates I; but any other desirable method may be employed. The ends of the guiding-rails are slightly beveled, so as to insure their taking the pulleys easily and without shock.

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

The improvement on single-track railways, the same consisting of the guiding-rails G, when secured to the car, in combination with the pulleys H, when secured upon each side of the rail, substantially as herein described.

WILLIAM HENRY HARRISON.

Witnesses:

A. M. CHURCH,
CURTIS H. LINDLEY.