S. H. SHREVE.

ELEVATED RAILWAYS.

No. 180,660. Patented Aug. 1, 1876.

Fig. 1.

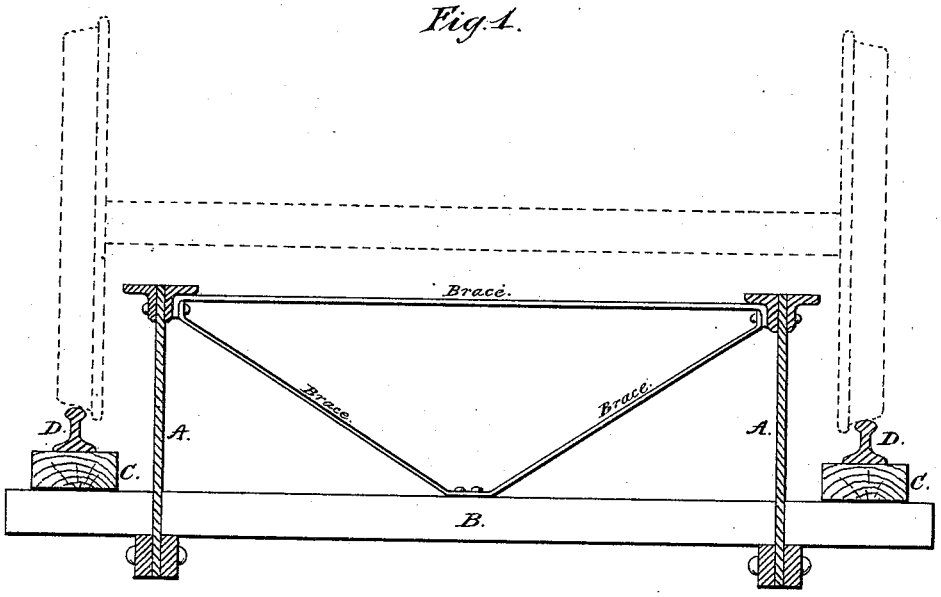
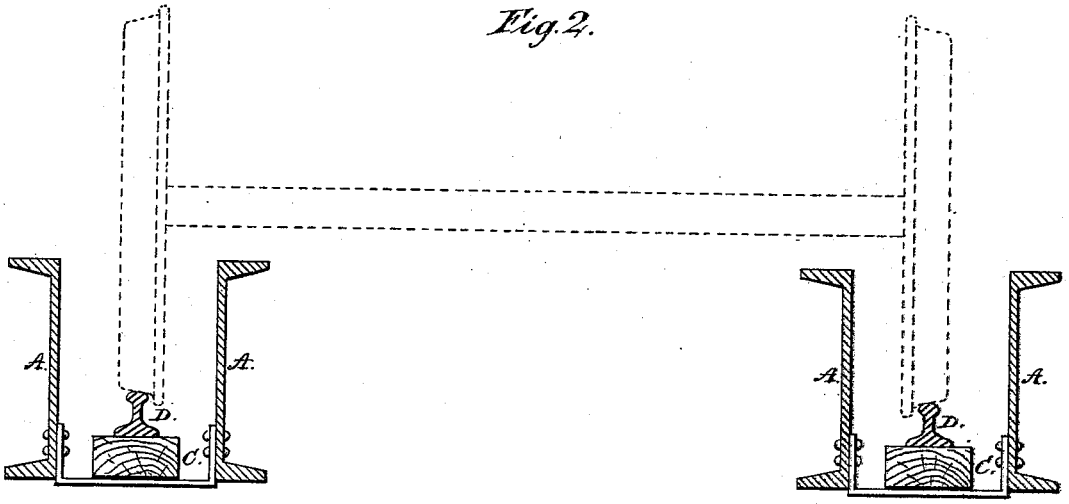


Fig. 2.



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UNITED STATES PATENT OFFICE.

SAMUEL H. SHREVE, OF TOM'S RIVER, NEW JERSEY.

IMPROVEMENT IN ELEVATED RAILWAYS.

Specification forming part of Letters Patent No. **180,660**, dated August 1, 1876; application filed April 23, 1875.

To all whom it may concern:

Be it known that I, SAMUEL H. SHREVE, of Tom's River, in the county of Ocean and State of New Jersey, have invented a new and Improved Method of Preventing the Derailment of Cars on Bridges, Elevated Railways, and other places where rails are supported by a longitudinal beam or girder; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of my invention consists in using the longitudinal beams or girders, which support the rails over a span or opening, as guards to prevent the cars or other vehicles from overturning or running off the track in case of any accident occurring to throw the wheels off the rails, such as the breaking of the rails, or the wheels, or the axles, or any other cause. This I accomplish in various ways: first, as shown in Figure 1, on the accompanying drawing, which represents a cross-section, where A A are two longitudinal girders, resting at the ends upon supports, which are not shown in the drawing, as they are no part of my invention. B is a beam, passing through the web of the girders, and supporting the wooden beams C C, on which the rails rest.

The position of the car-wheels is shown by the dotted lines in the figure.

My invention is, instead of having the ties placed upon the longitudinal girders, as is usually done, and the rails then placed upon the ties, to have a portion (as much as may be necessary) of the longitudinal girders A A rise up above the rails, so that if an axle, wheel, or rail breaks the upper part of the longitudinal girder may form a support for the car, engine, or other vehicle, and prevent their being thrown from the track.

The beam B B, which is shown as resting on the lower flange of the longitudinal girders, and which supports the rails, may be suspended beneath the girder, or may be placed at any point through its web, and secured, so that the object referred to may be attained whatever be the depth of the girder.

Fig. 2 shows another method of securing the same result. In this case A A A A are four longitudinal girders, supporting the rails D D, and acting, in case of accidents, in the same manner as the girders described in the previous figure.

In either method of arranging the girders, my invention is to bring the upper flanges of the inside girders very near the bottoms of the cars, or the boxes of the wheels, or near some guide, which may be attached in some manner to the vehicle, so that in case an axle (for example) breaks, the tendency of one or both sides of the car to fall down, or of the car to overturn, may be prevented by the bottom of the car, or the boxes, or the guides referred to resting upon the upper flanges of the girders.

I claim—

In an elevated railway, the arrangement described of the supporting-girders, laterally in respect to the wheels of the cars, and vertically in respect to the axles, so that in case the car leaves the track, or a wheel breaks, the axles will bear on the girders, as specified.

SAMUEL H. SHREVE.

Witnesses:

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