

(No Model.)

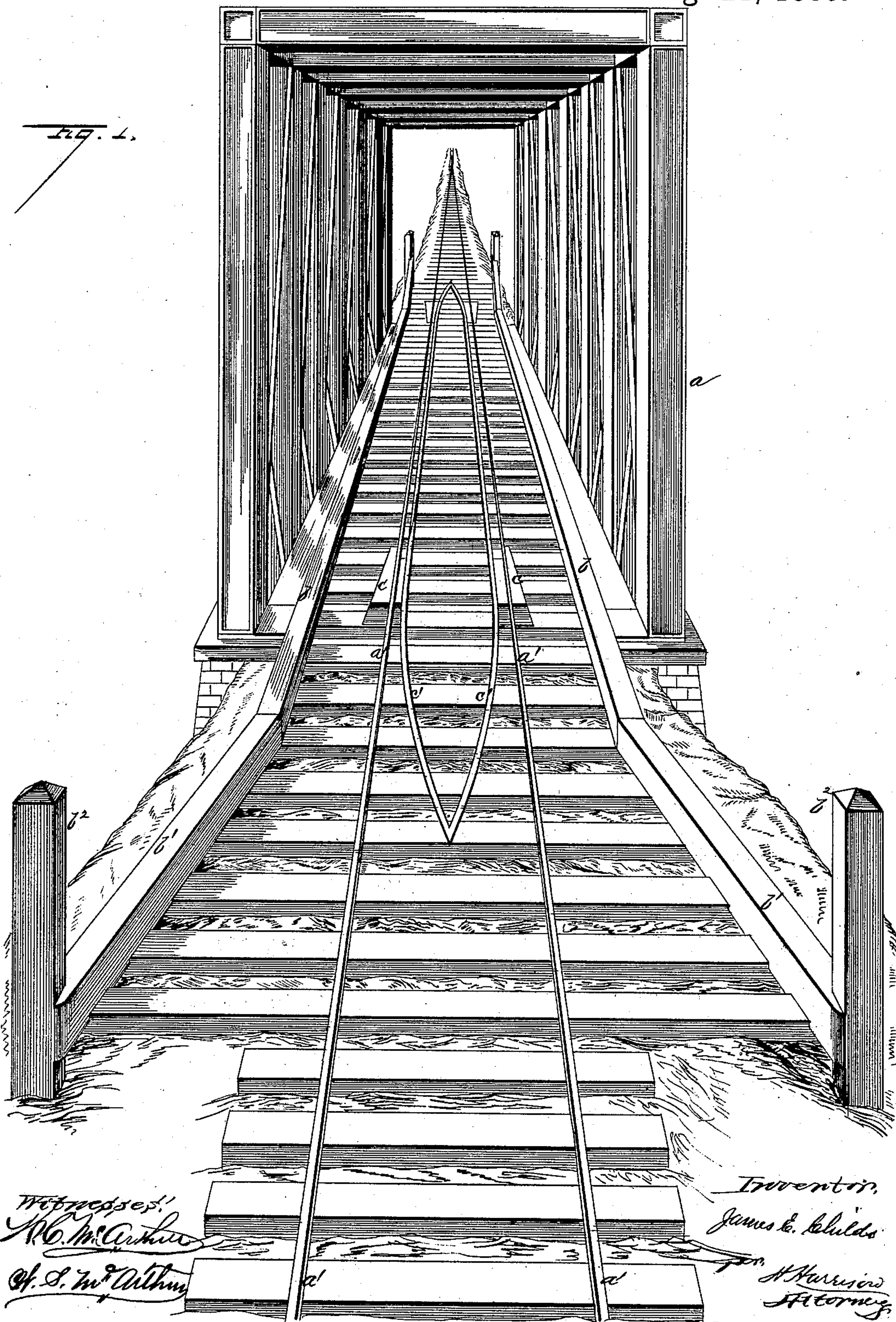
3 Sheets—Sheet 1.

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SAFETY GUARD FOR RAILROAD BRIDGES.

No. 388,122.

Patented Aug. 21, 1888.



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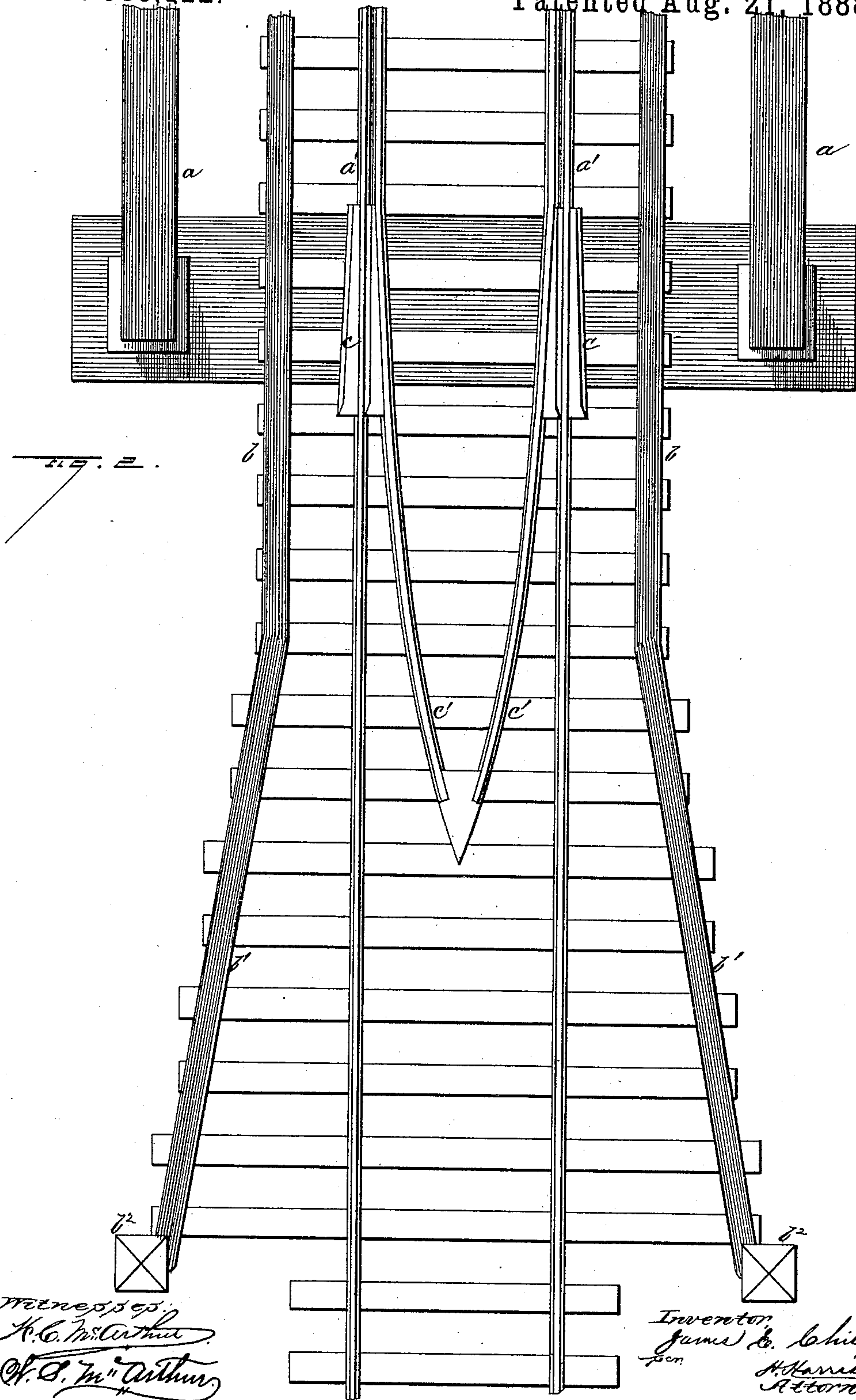
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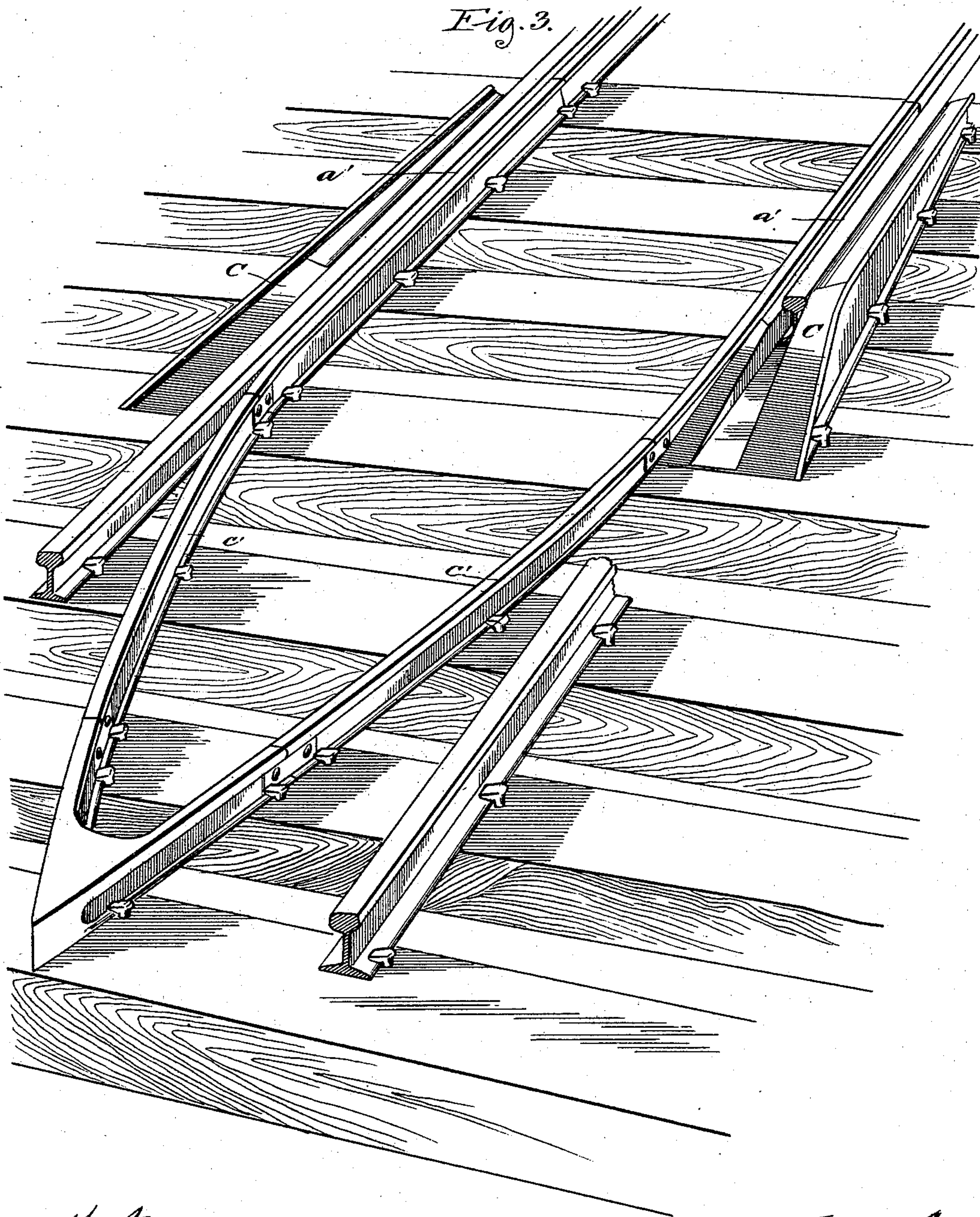
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No. 388,122.

Patented Aug. 21, 1888.



Witnesses,
J. J. Mann,
Frederick Goodwin

Inventor,
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UNITED STATES PATENT OFFICE.

JAMES E. CHILDS, OF NEW YORK, N. Y., ASSIGNOR TO WILLIAM J. MORDEN, OF CHICAGO, ILLINOIS.

SAFETY-GUARD FOR RAILROAD-BRIDGES.

SPECIFICATION forming part of Letters Patent No. 383,122, dated August 21, 1888.

Application filed March 21, 1888. Serial No. 267,949. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. CHILDS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Safety-Guards for Railroad-Bridges, of which the following is a specification, to wit:

This invention relates to an improvement in railroad-bridge guards; and it consists in certain peculiarities of the construction and arrangement of the same, substantially as will be hereinafter more fully set forth and claimed.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of my device as applied to a bridge, and Fig. 2 is a plan view of one end of a bridge and its approach with my invention in use. Fig. 3 is a perspective view designed to show the rerailing devices in detail and their relation to the track-rails.

a represents a railroad-bridge of any suitable or desirable construction, and *a'* the track laid over the bridge in the usual manner.

Many fatal accidents occur at railway-bridges by the accidental derailing of one or more trucks or cars at a greater or less distance from the bridge, and by a gradual lateral movement the derailed cars are brought into position to strike the end of the bridge and carry it off its abutments by the shock, thereby destroying not only the derailed cars, but also all the others with which they may be connected.

The object I have in view is, first, to provide a means for breaking the coupling and cutting out the derailed cars before reaching the bridge, if they are so far off the track as to be in a position to strike the bridge; and, second, to return them easily and gradually to the track if they are not so far out of line. I do this as follows:

b represents a pair of strong and heavy guard-rails, laid one upon each side of and parallel with the track across the bridge and as far beyond the ends of the bridge as may be deemed desirable. I have herein shown these guards as formed of heavy oak beams; but they may

of course be made of any suitable material, but must be firmly secured and of sufficient height to preclude all danger of a derailed wheel mounting over them. At each end these guards are spread apart or inclined outwardly, as at *b'*, and are secured to a post or fender, *b''*, set firmly in the ground and projecting to a sufficient height to engage the car-body. It will be noted that these posts are set up in a line with the sides of the bridge, as will more clearly appear in Fig. 2.

I also provide the track with a rerailing device consisting of a pair of plates, *c*, which are situated at the ends of the bridge, or as near that point as is deemed advisable, and, as in the drawings, it will be seen that these rerailing plates should be at or near the smaller ends of the expanding throat of the side guards. These plates *c* extend upon both sides of the main-track rails and are inclined upwardly from their rear toward their forward ends, or, in other words, are inclined upward in the direction in which a train is to pass. The incline upon the inner side of the main-track rail rises rapidly to a height just sufficient to lift the wheel-tread even with the top of rail, and the outside incline lifts to the top of rail-head in order to carry the outer wheel-flange over the rail, as will be at once understood. From the plates *c* a pair of guard-rails, *c'*, are secured to the ties and extended some distance in their rear to a point in the center of the track, as in Fig. 2.

In use, a derailed truck approaching the bridge is engaged by the side guards, *b*, or their inclined ends, and is gradually forced over toward the track till its inside wheel is engaged by the inner guard-rails, *c'*, which continue to draw the truck-wheels back to their proper position till they are carried up and onto the main rails by the inclined plates *c*, and the car is carried across the bridge and onward in safety.

Should the car be too far in a lateral direction before approaching the guard for its truck to be properly acted upon by the side guard, it is engaged by the post *b''* and the coupling broken and car stopped before it reaches the bridge or can injure it. In this way it will be seen that complete safety from accident upon the bridge is had.

In Fig. 1 have shown a single-track road having this guard at both ends of the bridge, because trains run in both directions upon the same track; but in double-track roads it is only
5 necessary to provide guards at the end first approached by the train, as will be understood at once.

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

1. In a safety-guard for railroad-bridges, the combination, with the bridge and the track laid upon it, of a pair of parallel guards arranged beside the track and having their ends flared
15 apart and provided with posts or stops in line

with the sides of the bridge, substantially as shown and described, and for the purpose set forth.

2. The combination, with the bridge and the main-track rails, of the side guards, *b*, provided
20 with flared ends *b'* and posts or stops *b''*, and the rerailing plates *c* and their guard-rails *c'*, meeting at the center of the track, substantially as and for the purpose set forth.

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

JAMES E. CHILDS.

Witnesses:

JOHN B. KERR,

GEORGE MARSDEN.