

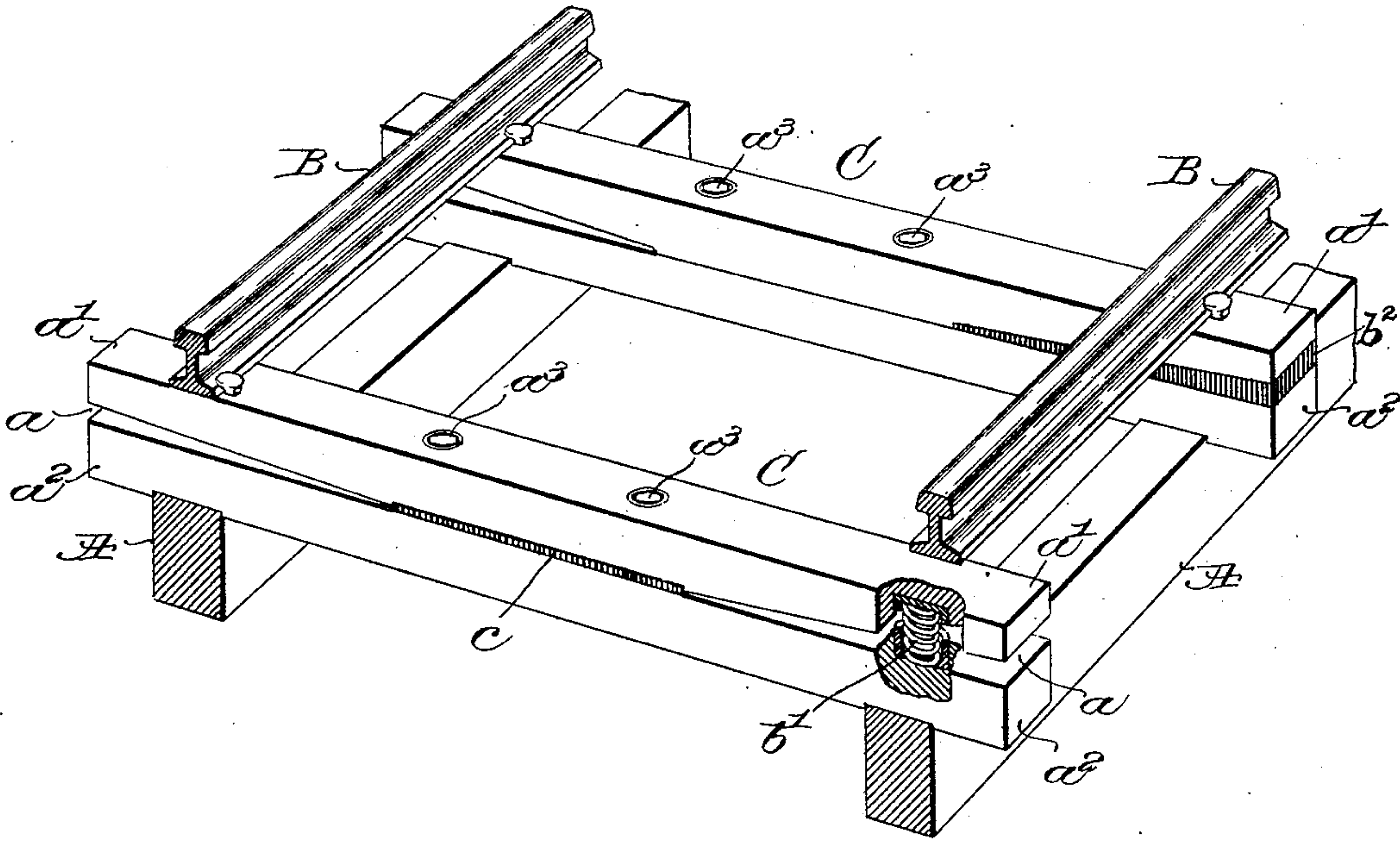
No. 713,311.

Patented Nov. 11, 1902.

L. C. KENDALL.  
RAILWAY CONSTRUCTION.

(Application filed Jan. 4, 1902.)

(No Model.)



Witnesses,  
Edward H. Allen  
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# UNITED STATES PATENT OFFICE.

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## RAILWAY CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 713,311, dated November 11, 1902.

Application filed January 4, 1902. Serial No. 88,386. (No model.)

*To all whom it may concern:*

Be it known that I, LEMUEL C. KENDALL, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Railway Construction, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention in railway construction has for its object to lessen the noise of railway-trains running on an elevated structure or on any structure.

15 In my invention, herein embodied in one of the best forms now known to me, I have so constructed the sleeper that the noise due to the cars running on the rail sustained by the sleeper is not transmitted by vibration into the remaining parts of the structure, as the 20 stringers on which the sleepers rest and the supports for the stringers.

I have produced a sleeper  $a'$ , that is supported between its ends on a cross-timber resting on the longitudinal stringers or side 25 timbers sustained by the usual uprights of the elevated structure, said sleeper sustaining directly the rails and preventing the vibration being passed through the sleeper to the construction on which the sleeper rests.

30 The figure in perspective shows a railway construction in part, it illustrating my invention in one form.

Referring to the drawing, A is supposed to represent longitudinal stringers or side tim- 35 bers of a suitable elevated or other structure, and B the rails to sustain the cars.

The stringers A, suitably sustained, support the cross-timbers  $a^2$ , which may be of wood or of any other suitable material. The 40 sleepers  $a'$  are supported between their ends on the cross-timbers  $a^2$ , and the ends of the sleepers are sustained above the ends of the cross-timbers, leaving a space between the sleeper and the cross-timber that acts to damp 45 and prevent the vibration of the sleeper due to the weight of the train running rapidly over the track from being transmitted through the sleeper into the cross-timber and stringers and whatever supports the latter.

I may, if desired, interpose a yielding me- 50 dium between the sleeper  $a'$  and the cross-timbers  $a^2$ , as shown at the right in the figure, and said yielding medium may be a spring, as  $b'$ , of any usual material—such, for instance, as wire—or it may be composed of 55 india-rubber or felt applied in a layer, as  $b^2$ , (see the drawing,) where the layer is made as a wedge-shaped piece inserted between the sleeper  $a'$  and the cross-timber  $a^2$ .

The sleeper is represented as united to the 60 cross-timber by suitable bolts  $a^3$ , and I may put a dampening layer, as  $c$ , of felt or other non-metallic substance, between the sleeper and cross-timbers.

I have shown the flanges of the rail B as 65 connected with the sleeper by suitable spikes or devices having a head to partially overlap the flange of the rails; but this invention is not limited to the particular manner shown of securing the rails to the sleeper. 70

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

1. In railway construction, stringers, cross-timbers connecting said stringers, sleepers 75 formed of separate superposed pieces connected only at their central portions, centrally sustained on said cross-timbers and adapted to support rails on their free ends, said free ends of the sleepers being uncon- 80 nected with the ends of and separated by a space from the ends of the cross-timbers.

2. In railway construction, stringers, cross-timbers connecting them, a sleeper centrally 85 sustained on said cross-timbers, non-metallic material interposed between the sleeper and the cross-timbers, and rails sustained at the free ends of the sleepers, said free ends be- 90 ing separated by a space from the ends of the cross-timbers.

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

LEMUEL C. KENDALL.

Witnesses:

JOHN C. EDWARDS,  
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