

B. F. CARD.
 Railway-Track.

No. 208,957.

Patented Oct. 15, 1878.

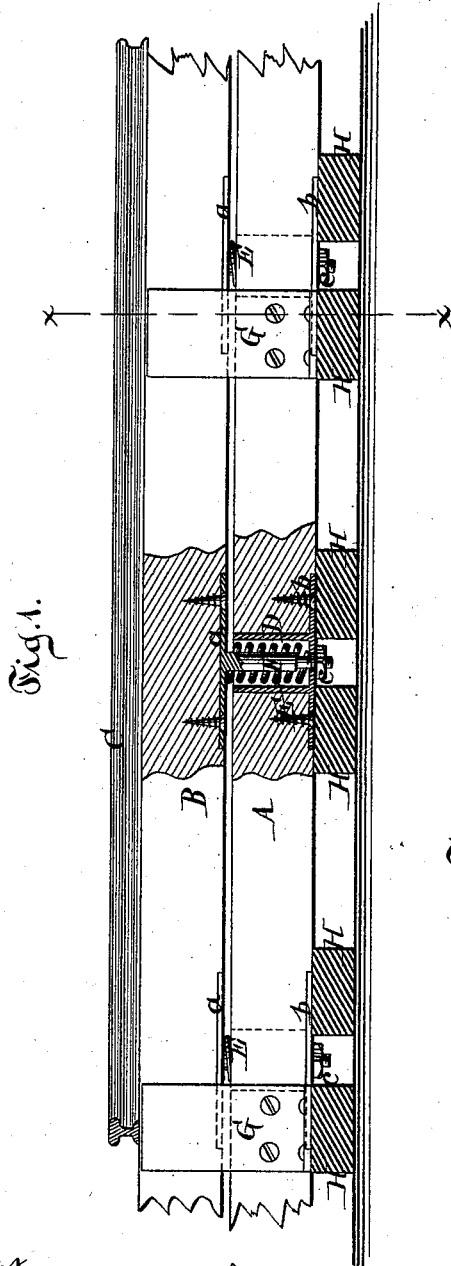


Fig. 1.

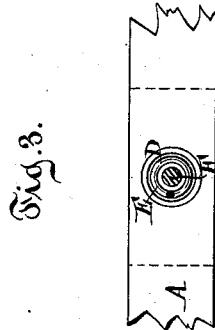
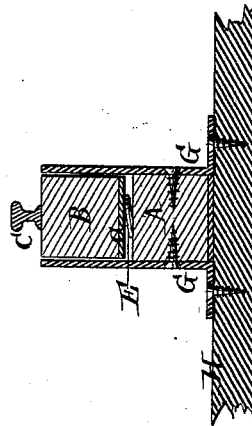


Fig. 3.

Fig. 2.



Witnesses
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BENJAMIN F. CARD, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN RAILWAY-TRACKS.

Specification forming part of Letters Patent No. **208,957**, dated October 15, 1878; application filed September 17, 1878.

To all whom it may concern:

Be it known that I, BENJAMIN F. CARD, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Attachment for Rails, of which the following, taken in connection with the accompanying drawings, is a full, clear, and accurate description.

The object of my improvement is, by means of the mechanism hereinafter described, to soften or deaden the noise of cars or trains running on the rails of railroads, either elevated or surface.

In the drawing, Figure 1 represents a side view of my rail, partly in section. Fig. 2 is a cross-section thereof in the plane of the line *x x*, Fig. 1. Fig. 3 is a top view of a portion of the lower stringer.

My improvement is constructed as follows:

On the ties or sleepers *H H* are placed longitudinally two wooden stringers, *A* and *B*, one above the other. On the top of the stringer *B* is placed the ordinary track-rail *C*. At suitable distances apart spiral springs *E*, or other springs made of sufficient length to project above the top of the stringer *A*, are placed in tubes, cylinders, or pedestals *D*. On the top of these springs *E* the stringer *B* rests.

The stringers *A* and *B* are so arranged with reference to the springs *E* that a small space is left between the stringers *A* and *B*.

The spiral springs *E* are made of sufficient strength and tension to bear the ordinary pressure of a train of cars. The said pedestals *D* are secured to plates *a* and *b*, which plates *a* and *b* are secured to the stringers *A* and *B* by bolts or other suitable means. Through the center of these spiral springs *E* is passed a bolt, *F*, the upper end of which is rigidly secured to plate *a*, and the other or lower end passes through the plate *b*. The lower end of said bolt *F* has a nut, *e*, which is used to tighten or loosen said bolt *F*, and thus secure its proper adjustment.

At suitable distances apart are also placed plates or angle-irons *G*, which are attached to the ties or sleepers *H H*, and also to the stringer *A*.

The operation of my improvement is as fol-

lows: When a train of cars is passing over the track-rail *C* it is depressed, thereby depressing the stringer *B* and causing the spiral springs *E* to contract, but not to such an extent as to allow the stringers *A* and *B* to touch each other to such an extent as to communicate the vibration of the stringer *B* to stringer *A* and its superstructure. The communication of the vibration of the stringer *B* and the track-rail *C*, caused by the passage of a train of cars over the same, is interrupted in its passage to the stringer *A*, thereby deadening or lessening the sound ordinarily occasioned by the passage of a train over ordinary track-rails.

The angle-irons *G*, secured and arranged as above set forth, prevent any lateral or swaying motion of the stringer *B*.

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

1. In combination with the stringer *A*, the stringer *B*, separated and supported above the stringer *A* by springs *E*, holding the ordinary track-rail *C*, for the purpose above set forth.

2. In combination with the ties or sleepers *H* and wooden stringer *A*, the track-rail *C*, supported and separated from the wooden stringer *A* by springs, for the purpose above set forth.

3. In combination with the stringer *B*, separated and supported above the stringer *A* by spiral springs *E*, fitting into the tubes, cylinders or pedestals *D*, surrounding the bolt *F*, said stringer *B* supporting the track-rail *C*, for the uses and purposes above set forth.

4. In combination with ties or sleepers *H* and stringer *A*, the track-rail *C*, supported and separated from the stringer *A* by spiral springs *E*, fitting into tubes, cylinders, or pedestals *D*, surrounding the bolt *F*, for the uses and purposes above set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of September, 1878.

BENJAMIN F. CARD.

In presence of—

EDGAR J. PHILLIPS,
R. T. VAN BOSKERCK.