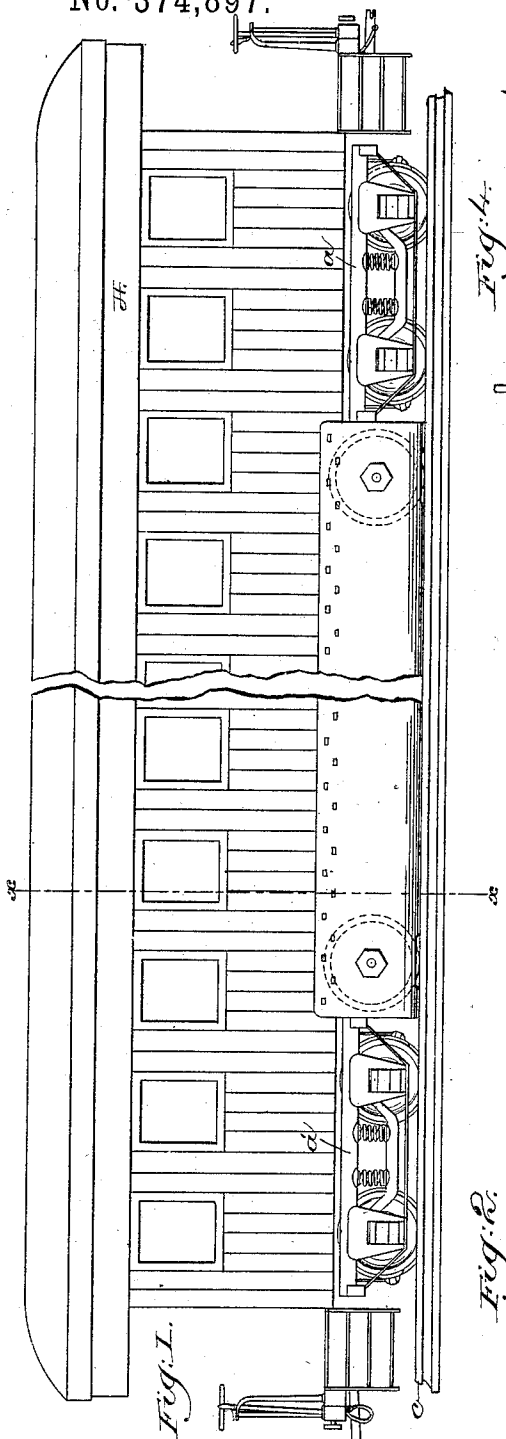


(No Model.)

C. C. HOLT.
RAILWAY CAR.

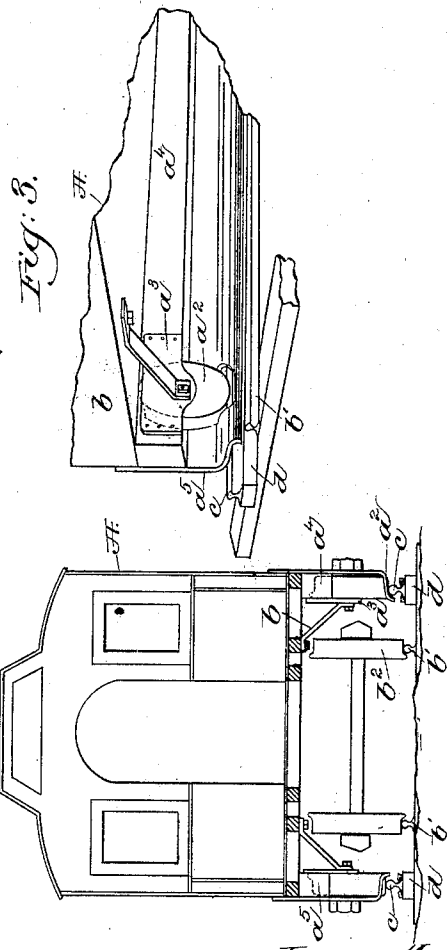
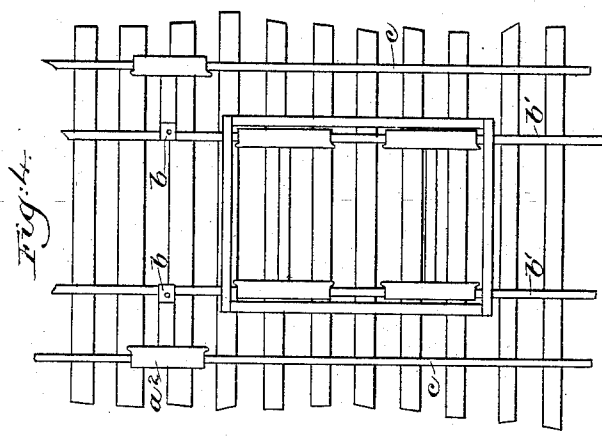
No. 374,897.

Patented Dec. 13, 1887.



Witnesses.

Fred. S. Greenleaf
Fred L. Emery.



Fraverdun.

Charles C. Holt.
by Crosby & Gregory
allys.

UNITED STATES PATENT OFFICE.

CHARLES C. HOLT, OF LAWRENCE, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO WILLIAM H. HUTCHINSON, OF SAME PLACE.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 374,897, dated December 13, 1887.

Application filed July 11, 1887. Serial No. 243,961. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. HOLT, of Lawrence, in the county of Essex and State of Massachusetts, have invented an Improvement in Railway-Cars, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to railway-cars, and has for its object to provide cars as now commonly constructed with means, as will be described, whereby additional safety is insured to the occupants in case a car should leave the track.

In accordance with my invention, two or more safety-wheels are supported below the car on each side thereof between the trucks, the said wheels being located above and outside the usual rails of the track and at such distance above the rails of the track as to permit the car to sway or rock sufficiently to pass safely around curves without striking or interfering with the usual rails of the track, but at all dangerous curves along embankments and at trestles and bridges the road-bed will be provided with auxiliary tracks, as will be described. The sides of the car between the trucks will preferably have fastened to them a strong guard or support to assist in sustaining the car if it should leave the track. The auxiliary track will be located outside the usual track on which run the wheels of the truck, and especially along dangerous places—such, for instance, as bridges and sharp curves—the surface of the rails of the auxiliary tracks being laid, preferably, just below and in line with the safety-wheels of the car, so that in case of accident the said safety-wheels may drop and ride upon the auxiliary track.

The particular features in which my invention consists will be pointed out in the claims at the end of this specification.

Figure 1 is a side elevation of a passenger-car of ordinary construction broken out to save space in the drawings, it being provided with safety-wheels in accordance with my invention; Fig. 2, a section of Fig. 1 on line *x x*, looking toward the left, only an axle and one pair of wheels of the car-truck being shown; Figs. 3 and 4, details to be referred to.

The car-body A, mounted upon trucks *a a'*, wheels *b*², and rails *b'* are and may be of ordinary construction, such as now commonly used.

Below the car A, on each side thereof, between the trucks *a a'*, are located safety-wheels *a*², having their shafts supported, as herein shown, by a hanger, *a*³, (see Figs. 2 and 3,) fastened to a beam, *a*⁴, secured to the under side or sill of the car, and a guard or support, *a*⁵, properly of metal, fastened to the side of the car, the said hanger being strengthened by a brace, *b*, bolted to the car-bottom.

The safety-wheels are supported at such distance above the level of the road-bed upon which are laid the rails *b'* for the wheels *b*² of the trucks *a a'* that the car is permitted to rock or sway when going round curves, as in cars now commonly constructed; but if the car sways more than safety will permit, then the safety-wheel will meet the auxiliary track, as *c*, which will be laid along the danger side of the curve or at both sides.

In case of accidents—such as the breaking of a rail or a car-wheel—along any part of the road-bed not provided with the auxiliary track *c*, then the car will tip to one side, but the guard-wheels meeting the sleepers the said car will be prevented from turning over upon its side, the wheels of the truck which remain in place running on the regular track, thus retaining the car in upright position and preventing it from being overturned until the train has been stopped.

On bridges, as well as along curves, the road-bed will be provided with an auxiliary track, the rails *c* of which are outside or beyond the rails *b'*.

The rails *c* are herein shown as laid upon a support, *d*, resting on the bed below and substantially in line with the safety-wheels *a*², the rails *c* being above the rails *b'*, so that in case of accident the said safety-wheels may drop upon and be supported by the said rails.

The guard or support *a*⁵ is herein shown as bent at its lower end to overlap the rails *c*, and is provided with a slot or opening through which the wheel *a*² projects; but it is evident that the said guard or support may be a straight sheet of steel.

I claim—

1. A railway-car having trucks $a\ a'$, supported upon rails b' , combined with safety-wheels a^2 , independent of the said trucks and rails and adapted to support the car in case it leaves the track, substantially as and for the purpose specified.

2. A railway-car supported upon trucks $a\ a'$, combined with safety-wheels a^2 , independent of the said trucks, and with a guard, a^5 , substantially as described.

3. A road-bed having two tracks or rails, as

$b'\ c$, a railway-car having its trucks supported by the rails b' , combined with safety-wheels a^2 , located below the car and substantially in line with the rails c , as and for the purpose specified. 15

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

CHARLES C. HOLT.

Witnesses:

G. W. GREGORY,

B. DEWAR.