

(No Model.)

C. H. ALCOKE.
ROLLER COASTING VEHICLE.

No. 310,356.

Patented Jan. 6, 1885.

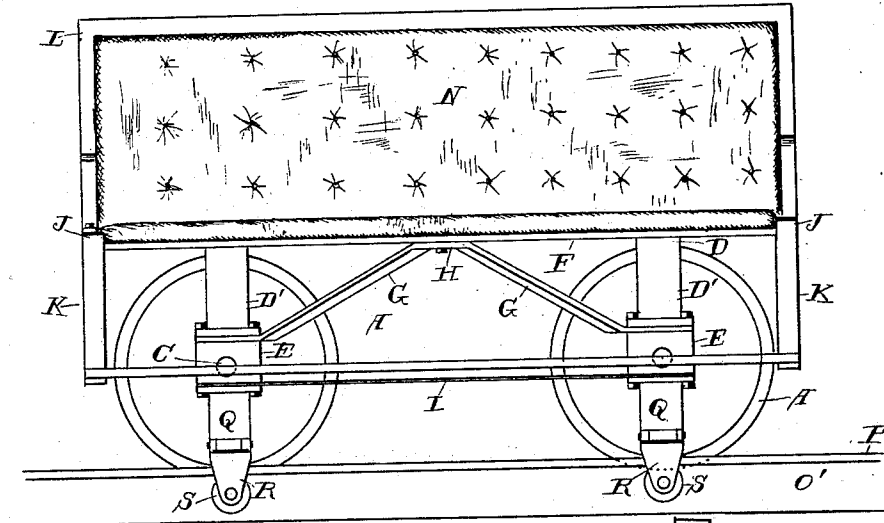


Fig. 1

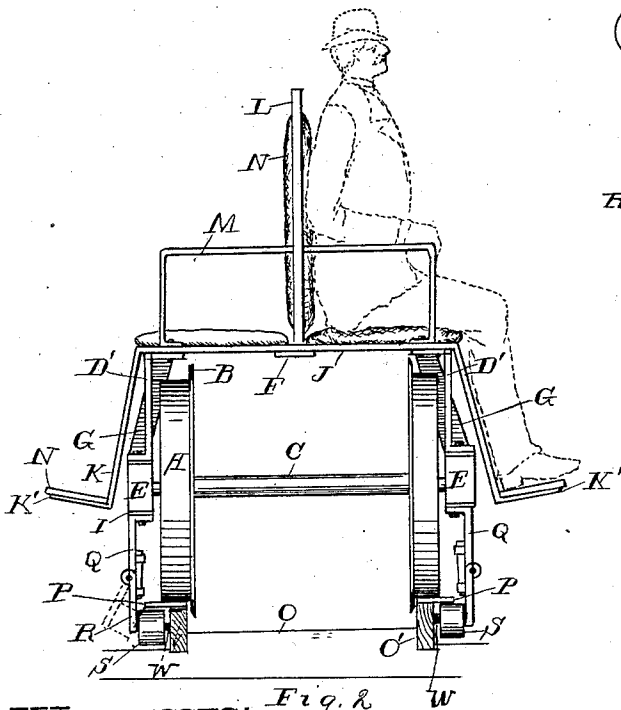


Fig. 2

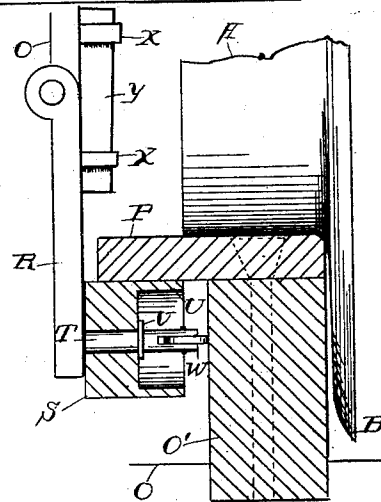


Fig. 3

WITNESSES: *Fig. 2*

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CHARLES H. ALCOKE, OF HAMILTON, OHIO.

ROLLER COASTING-VEHICLE.

SPECIFICATION forming part of Letters Patent No. 310,356, dated January 6, 1885.

Application filed August 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. ALCOKE, of Hamilton, in the county of Butler and State of Ohio, have invented a new and useful Improvement in Roller Coasting-Vehicles, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side view of my improved double-roller coaster. Fig. 2 is an end view, and Fig. 3 an enlarged vertical sectional view, of the rail and roller-guard.

The present invention relates to an improvement in the class of articles known as roller-coasters; and it consists of two pairs of wheels journaled within a frame having upwardly and outwardly thereon, at each side, seats for passengers, a rail having a flange outwardly, and a hinged guard extending downwardly from the journaled boxing, and is provided at its lower end with a pair of rollers journaled at its lower end, which is designed to have a bearing against the outer part of the rail for the purpose of preventing the car from becoming detached or removed from the track when the car is in motion, all of which will now be fully set forth in detail.

In the accompanying drawings, A are wheels of any size suitable for the purpose. I design to have a flange, B, somewhat larger than ordinary, and having an axle, C, to which they are connected, as in the ordinary car. This axle C is, however, designed to be somewhat shorter, preferably, relative to the height of the wheels than the ordinary wheels and axle. Immediately over these wheels and axle I provide transverse pieces D, turned down outwardly, D', at the sides of the wheels, and provided at their lower ends with the boxings E, having the ends of the axles C journaled therein. Longitudinal pieces F are designed to be secured to these transverse pieces, and suitable braces, G, connecting centrally, H, on the lower face of the side pieces, extend diagonally to and are connected with the journaled boxes E. A longitudinal piece, I, is secured to the lower side of the said journaled boxes E, and designed to connect them together. At each end of the longitudinal pieces F, I provide transverse pieces J, secured thereto and turned down, K, some distance and out-

wardly, K', at the foot. Centrally upon these pieces J, I erect vertical pieces L, and in the angle thus formed with the transverse pieces J, I secure arms M. Upon this transverse piece J and inclined part K and horizontal ends K', I provide suitable seats and back and foot rests, N. If found convenient, the arm-pieces M may be disposed longitudinally upon the seats. Upon the ties O, upon which I secure rail O', having upon its upper side a flange, P, extending downwardly from the lower side of the journaled boxes E, I provide pieces Q, to the lower part of which is hinged a piece, R, which has at its lower end inwardly a horizontal roller, S, secured thereto by means of a journal, T. The outer end of the roller S is provided with a recess, U, and upon the journal T, within this recess, I provide a retaining-piece, V, for the purpose of preventing the roller S from becoming detached. At the outer end of the journal T, I provide horizontally a caster, W, journaled therein, with its periphery extending outwardly therefrom somewhat. Inwardly from the pieces Q and R, I provide rings X, through which I pass a wedge-shaped bolt, Y, for the purpose of making the piece R rigid relative to the piece Q. These pieces Q and R are designed to be of such a length that when the wheels A rest upon the rails the roller S will rest beneath the flange P, while the caster W will have a bearing against the outer ends of the web of the said rail. As will be noticed, the length of the axles C is such that a pair of seats back to back on the upper part of the frame may have the foot-rests N outwardly from the boxings E.

This device, when constructed in the manner shown, even when the track is very narrow, will be prevented from becoming overturned by turning curves, or on account of inclination of the track, by means of the guard-rollers S beneath the flange P of the rails.

When it is desired to remove the car from the track for repairs or transporting it from place to place, the wedge-bolts Y are removed from the rings X, and the part R and roller S turned outwardly and upwardly, when the said coaster may be removed from the track and the wheels A run upon the ground.

I do not desire in this application to make

any claim on the construction of the rail and road-bed, and I therefore reserve the subject-matter of the same for a subsequent application.

5 What I claim is—

1. In a roller-coaster, the frame D D', to which the axles are journaled, having at the lower end of the said vertical limbs arms R, provided with the horizontal rollers, which
10 roll against the under side of the rail-flange, and rollers W, which rotate on a horizontal plane against the web of the rail, substantially as described.

2. In a roller coasting-vehicle, substantially
15 as described, and in combination with the vertical limbs D', the piece R, the journal T, and

horizontal roller S, recessed at U, and provided with the retaining-piece, as and for the purposes set forth.

3. The combination of the vertical limbs 20 D' of the frame to which the axles are journaled, with the wheels A, hinged roller-limb R, and flanged rail, as and for the purposes substantially as herein described.

In testimony that I claim the foregoing I 25 have hereunto set my hand, this 31st day of July, 1884, in the presence of witnesses.

CHARLES H. ALCOKE.

Witnesses:

C. D. ZERBE.

DUGALD MCKILLOP.