(No Model.) 2 Sheets—Sheet 1.

P. HINKLE.

GRAVITY PLEASURE ROAD.

No. 307,942. Patented Nov. 11, 1884.

Fig. 1.

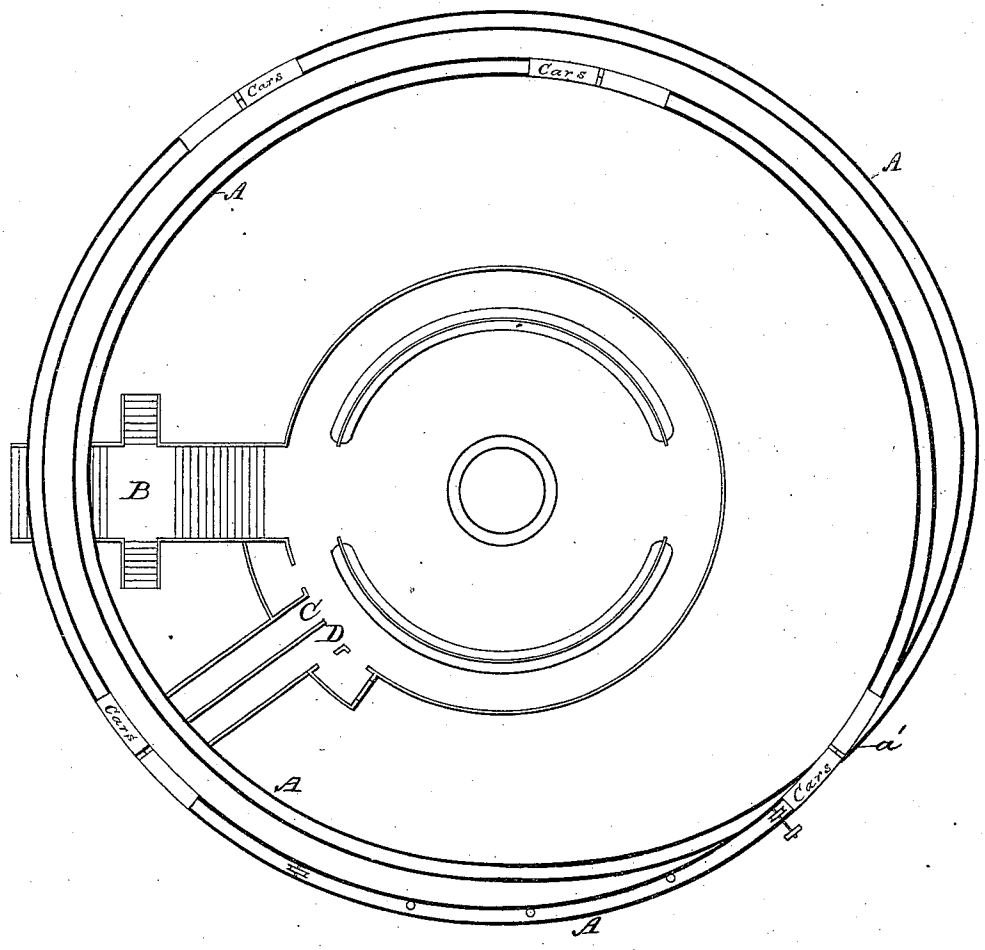
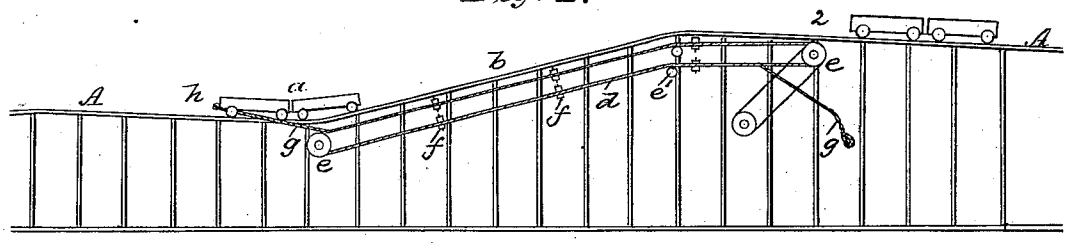


Fig. 2.



Witnesses:
J. C. Brecht
J. R. Nottingham

Inventor:
Philip Hinkle
by R. K. Evans
Attorney.

(No Model.) 2 Sheets—Sheet 2.

P. HINKLE.

GRAVITY PLEASURE ROAD.

No. 307,942. Patented Nov. 11, 1884.

Fig. 3.

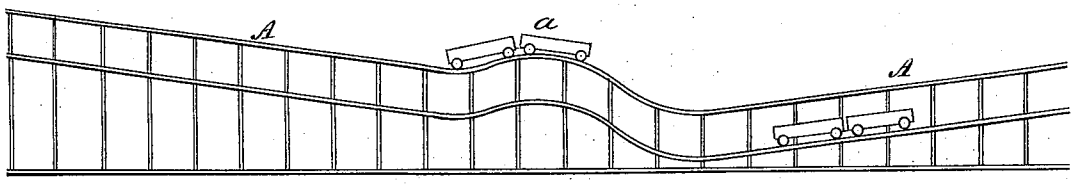
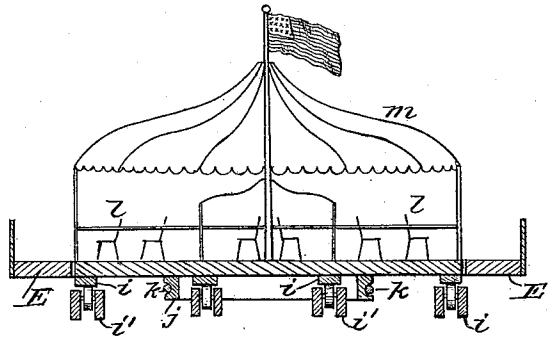


Fig. 4.



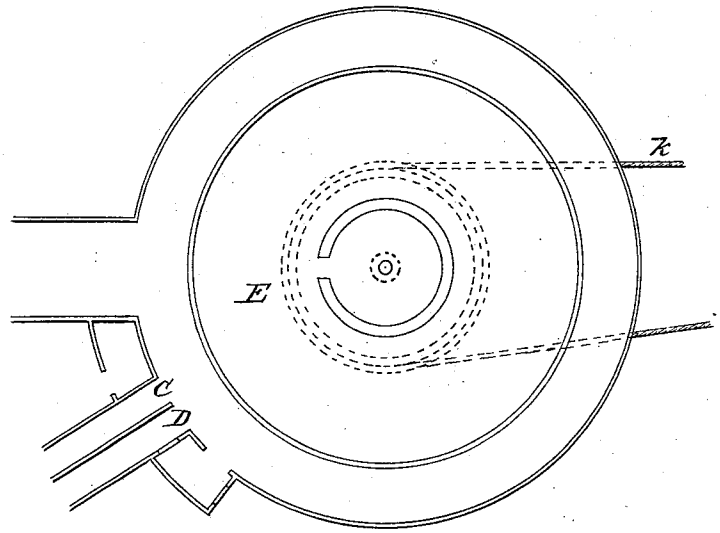


Fig. 5.

Witnesses:
T. C. Brecht
J. R. Nottingham

Inventor:
Philip Hinkle
by R. K. Evans
Attorney.

UNITED STATES PATENT OFFICE.

PHILIP HINKLE, OF SAN FRANCISCO, CALIFORNIA.

GRAVITY PLEASURE ROAD.

SPECIFICATION forming part of Letters Patent No. 307,942, dated November 11, 1884.

Application filed August 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, PHILIP HINKLE, of San Francisco, in the county of San Francisco and State of California, have invented certain Improvements in Gravity Railways; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan view showing the general construction of the road. Fig. 2 is a side elevation illustrating the point of starting of the cars. Fig. 3 is a side elevation showing the undulatory character of the tramway. Fig. 4 is a vertical section through the platform to hold the audience. Fig. 5 is a plan of the audience-holding platform.

My invention relates to gravity pleasure roads having cars which run on tracks, the cars returning by gravity and momentum to their starting-point, and has for its object to increase the distance of possible travel of the cars within the necessarily circumscribed space in which such structures are built, and also to enable an audience to observe the operation of the cars with facility and comfort.

My invention consists of a continuous convoluted track passing through two or more ellipses in traversing the space within which the track is contained.

My invention further consists in a central revolving auditorium within the gravity road or track, whereby the passengers can be continuously observed by the audience.

My invention further consists in a series of details of construction, as hereinafter fully described, and specifically pointed out in the claims.

In the said drawings, A A is a tramway or track made in a convolute curve, passing twice around the inclosure or space for its occupancy. For illustration, let the point *a* be the starting-point for the cars carrying the passengers. From this point an incline, *b*, reaches the highest, or a high point of the track, and along the said incline *b* the cars are drawn by an endless cable, *d*, mounted on sheaves *e e e' e'*, and bearing against rollers *f f* on the side of the frame-work, to conduct the cable around the curvature of the track. At certain points on the endless cable are loose ends or lengths *g g*, the ends of which are provided with toggles or other desired fastening devices, to engage at *h* with the car or cars and draw them up the incline, and, as soon as the cars pass the highest point and pass onto the incline *z*, they run forward of the cable and release themselves from the fastening device, passing on around the track.

The track is made with a series of alternate rises and depressions of any desired amount of variation, so that the momentum attained on the downgrades may be, to a great degree, overcome in rising the elevations. In the return curve of the track it is seen, for purposes of illustration, in Fig. 1, as crossing itself near the point *a'*; but it may cross where desired. Proper approaches and stairways B C D are provided to reach the central stand or seats of observation.

The central stand for the audience consists of a platform, E, having on its bottom circularly-arranged rollers *i' i'*, and allow the relar tracks *i i*, which rest on a series of circuvolving of the said platform through the medium of a grooved pulley, *j*, and a belt, *k*, driven by any desired power. The central stand is provided with chairs or benches *l l*, and has over it a canopy, *m*. The movements of the cars and the platform E may be so timed that the observer on the platform can turn at a rate to follow around any particular car or cars in which there may be felt any special interest.

I am aware that it is not broadly new to construct a gravity pleasure tramway in a circle, and with alternate depressions and eminences for a car to pass over.

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

1. A gravity tramway having a convoluted return curved track crossing itself, substantially as described, for the purpose set forth.

2. A curvilinear gravity tramway, in combination with an interior movable audience-platform, E, as specified.

3. The platform E, provided with circular tracks *i i*, and the circularly-arranged rollers *i' i'*, in combination with pulley *j*, belt *k*, and the surrounding track A A, all constructed, arranged, and operated as described.

PHILIP HINKLE.

Witnesses:
R. K. EVANS,
A. C. RAWLINGS.