J. C. TURNER.

GRAVITY TOY.

APPLICATION FILED MAR. 29, 1917.

1,290,417.

Patented Jan. 7, 1919.

2 SHEETS—SHEET 1.

FIG. 1.

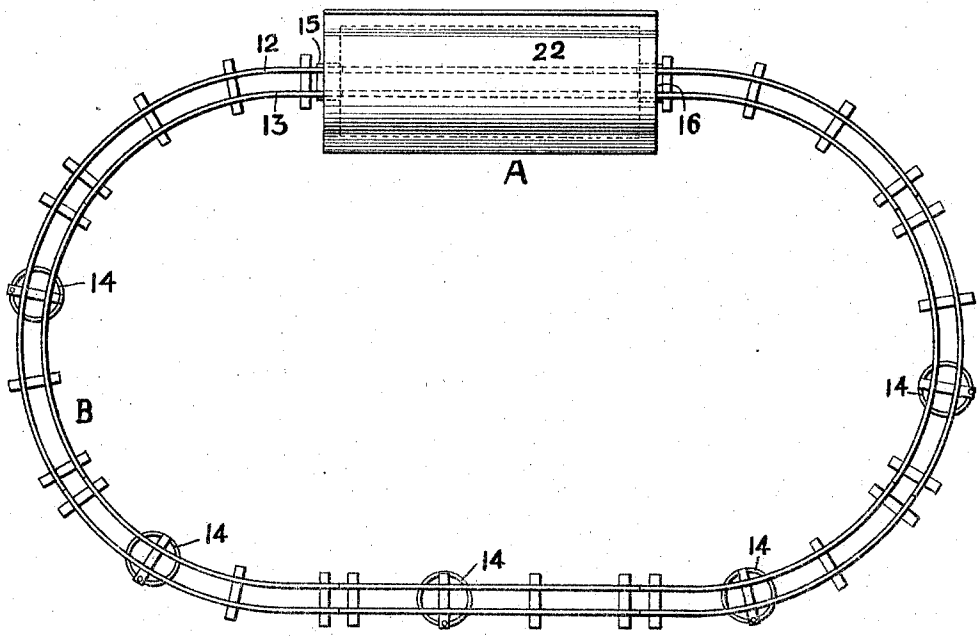
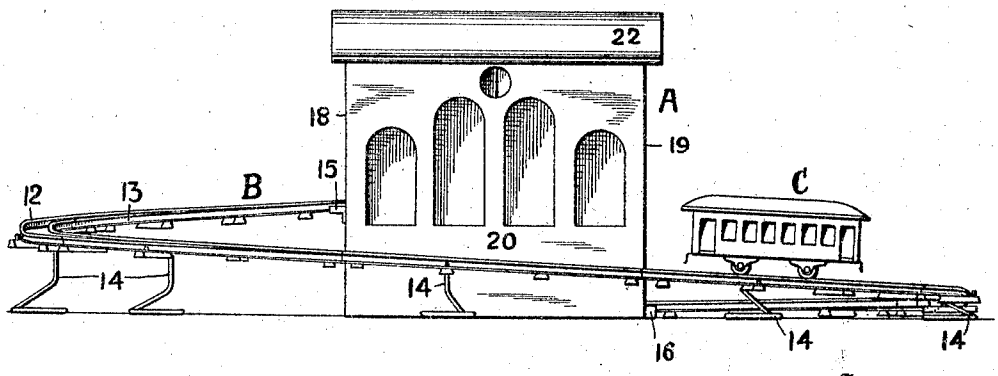


FIG. 2.



Inventor

John C. Turner

By Attorney

Albert F. Nathan

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

J. C. TURNER.

GRAVITY TOY.

APPLICATION FILED MAR. 29, 1917.

1,290,417.

Patented Jan. 7, 1919.

2 SHEETS—SHEET 2.

FIG. 4.

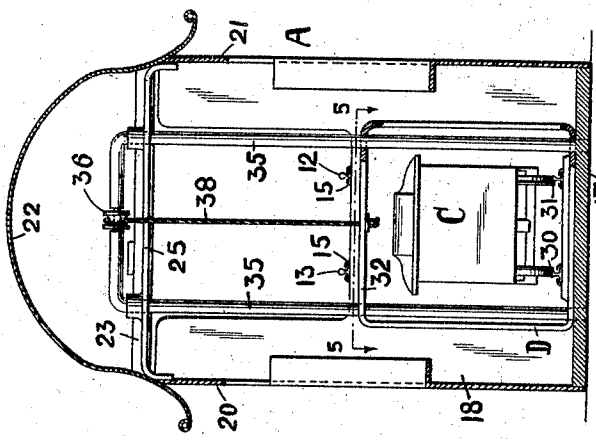


FIG. 5.

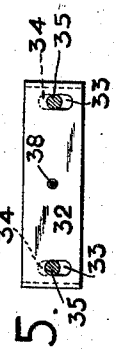
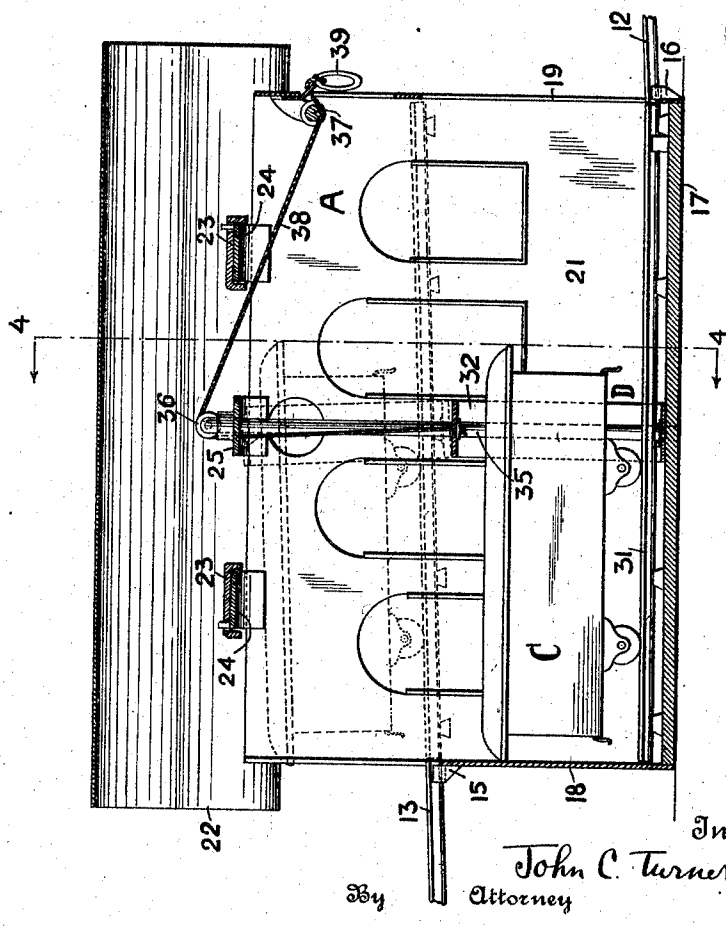


FIG. 3.



Inventor

John C. Turner

By Attorney

Albert F. Nathan

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN C. TURNER, OF DAYTON, OHIO, ASSIGNOR TO THE JOHN C. TURNER NOVELTY CO., OF DAYTON, OHIO, A CORPORATION OF OHIO.

GRAVITY TOY.

1,290,417. Specification of Letters Patent. Patented Jan. 7, 1919.

Application filed March 29, 1917. Serial No. 158,180.

To all whom it may concern:

Be it known that I, JOHN C. TURNER, a citizen of the United States, and residing at Dayton, in the county of Montgomery and State of Ohio, have invented a new and Improved Gravity Toy, of which the following specification is a full disclosure.

This invention relates to toys and it deals more especially with such toys as are gravitatively propelled, particularly as a gravity railroad in which the cars travel through their descent along an inclined track.

The primary object of this invention is to create and render available a very simple structure embodying an inclined track of an apparently endless arrangement together with an entertaining mechanism for causing the cars to reach their elevation by a simple manual operation.

This invention has generally an objective. The idea of utilizing a station-house for the double purpose of affording a stopping point at which the cars will automatically halt and for also concealing the mechanism for elevating the cars from the lowest point of the track to the highest point, thereby giving to the cars the effect of running into the station and shortly thereafter proceeding again on their journey.

Other objects will be in part obvious from the annexed drawings and in part indicated in connection therewith by the following analysis of this invention.

This invention accordingly consists in the features of construction, combination of parts, and in the unique relations of the members and in the relative proportionings and disposition thereof; all as more completely outlined herein.

To enable others skilled in the art so fully to comprehend the underlying features thereof that they may embody the same by the numerous modifications in structure and relation contemplated by this invention, drawings depicting a preferred form have been annexed as a part of this disclosure, and in such drawings, like characters of reference denote corresponding parts throughout all the views of which:—

Figure 1 is a plan of an elliptical track combined with a station-house concealing its respective upper and lower ends. Fig. 2 is an elevation showing how the elliptical inclined track enters and leaves the station-house and relation therewith. Fig. 3 is a view of the interior construction of the station-house with the mechanism for elevating the cars. Fig. 4 is a section along 4—4 of Fig. 3 and Fig. 5 is a detail showing the means for tilting the elevator platform to start the cars down the track.

Referring to the drawings, A indicates an inclosure simulating a railroad station-house, B denotes a helical track which begins and ends within the station-house and C denotes a gravity car of any desired construction.

The track B consists of a number of identical sections each interfitted together and each supported by a trestle 14 preferably formed of a single wire having a fairly large base to provide for sufficient stability. The rails 12 and 13 of the track at their highest ends rest on a platform 15 which is outturned from the side 18 of the sheet metal house, and the other ends of said rails rest on a similar platform 16 outturned from the opposite end wall 19 of said house.

A station-house consists of a lower portion embodying end and side walls 18 and 19, and 20 and 21 each uprising from a base 17, preferably of heavier metal. The upper marginal portions of the side walls 20 and 21 are bridged by strips 24 to brace them, and to also furnish an anchorage for the roof portion 22 which carries transverse strips 23 adapted to rest upon the aforesaid strips 24.

Extending across the upper edges of the wall portions 20 and 21 is a guide 25 in the nature of a bracket which is perforated to receive a U-shaped member 35 providing two side guide rods which at their lower ends are anchored into the base 17. These rods guide the car elevator which is constructed as follows:

An open frame 32 is formed of sheet metal and provides upper and lower guide strips which are provided with elongated slots 33 and 34, respectively, said slots being arranged in offset relation, as indicated by Fig. 5, so as to enable the frame 32 to tilt from its vertical position when depressed (as shown in full lines by Fig. 3) to its inclined position as shown in dotted lines by Fig. 3. This frame 32 carries two tracks 30 and 31 which are adapted to rest on the base 17 in alinement with the lower ends of the tracks 12 and 13. A cord 38 extends over a pulley 36 and is connected to the frame 32, and

this cord extends also over a pulley 37 and terminates in a ring 39 so that it can be grasped readily near one end of the station-house so that the elevator can be uplifted and permitted to tilt owing to the weight of the car being located on its forward end, as shown by Fig. 3. This permits the car to gravitate out of the station-house onto the track B, and to automatically make a return trip ready to be received by the elevator which in the meantime has been permitted to descend.

It will thus be seen that by means of a very simple and inexpensive structure a neat and attractive toy has been produced.

Without further analysis, the foregoing will so fully reveal the gist of this invention that others can by applying current knowledge readily adapt it for various applications without omitting certain features that, from the standpoint of the prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention, and therefore such adaptations should and are intended to be comprehended within the meaning and range of equivalency of the following claims.

Having thus revealed this invention, I claim as new and desire to secure the following combinations of steps and elements, or equivalents thereof, by Letters Patent of the United States:—

1. A gravity railroad combining a helical track; a station-house having open ends connected to the ends of said track; a track section adapted to rest on the floor of said station-house to receive a car; a guide for said track section located in offset relation to the car to automatically incline said section upon being uplifted; and a cord and pulley means for uplifting said section.

2. A gravity railroad combining a helical track composed of a plurality of interfitting sections each independently supported by its base; a station-house connected to the ends of said track; a car adapted to gravitate along said track; a track section within said station-house adapted to receive said car; and pulley mechanism for uplifting said track section to discharge said car onto the upper end of said track.

In witness whereof, I hereunto subscribe my name, as attested by the two subscribing witnesses.

JOHN C. TURNER.

Witnesses:
B. COOKE,
N. SCHWARTZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."