Nov. 1, 1966 A. EINFALT 3,281,985

TOY VEHICLE TRACK ELEVATING DEVICE

Filed June 25, 1964 3 Sheets-Sheet 1

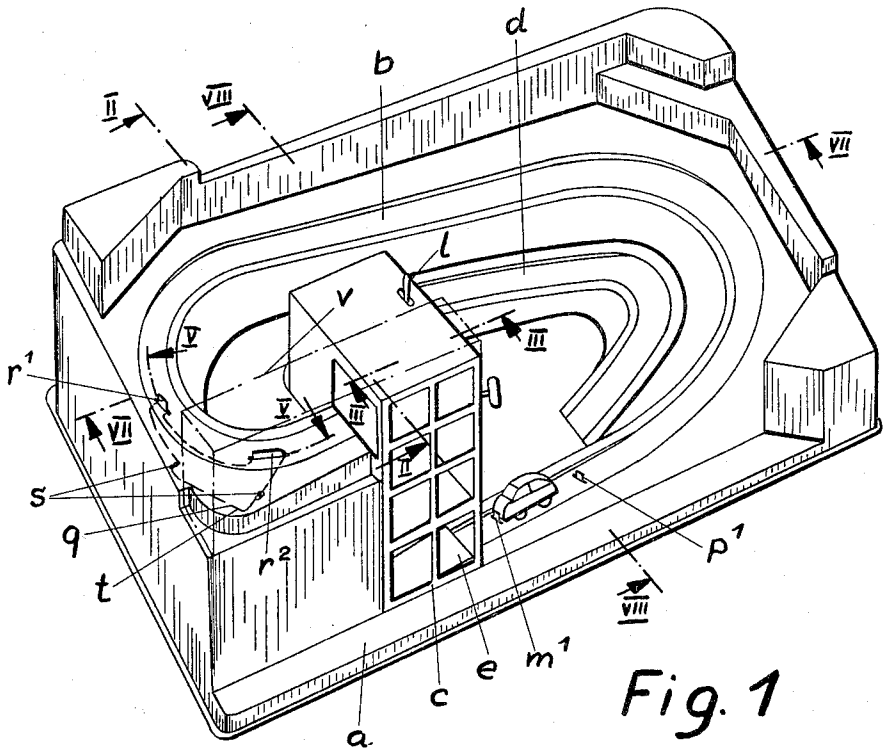


Fig. 1

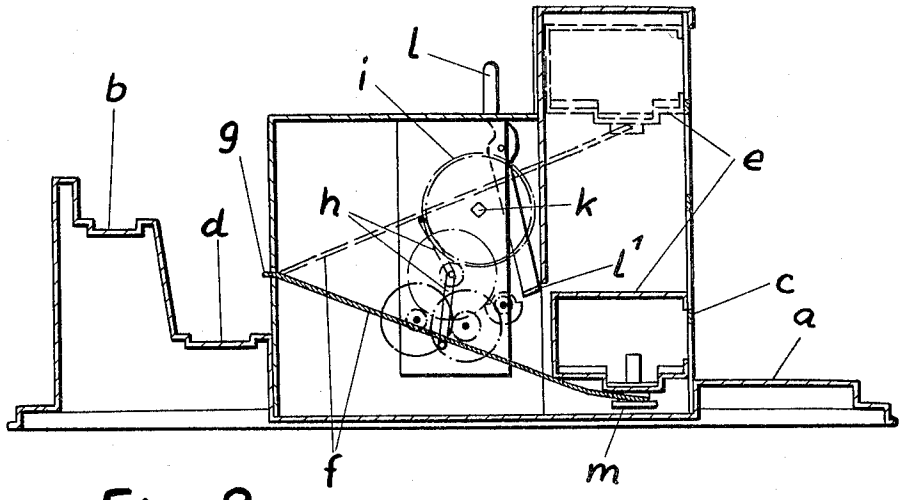


Fig. 2

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TOY VEHICLE TRACK ELEVATING DEVICE

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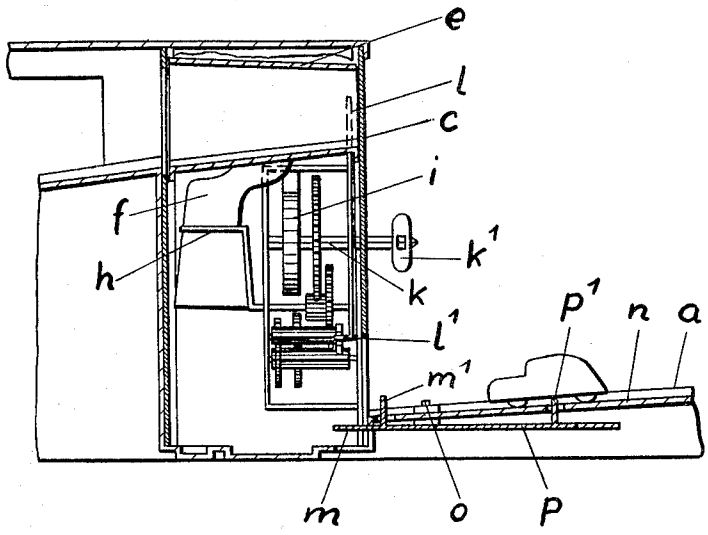


Fig. 3

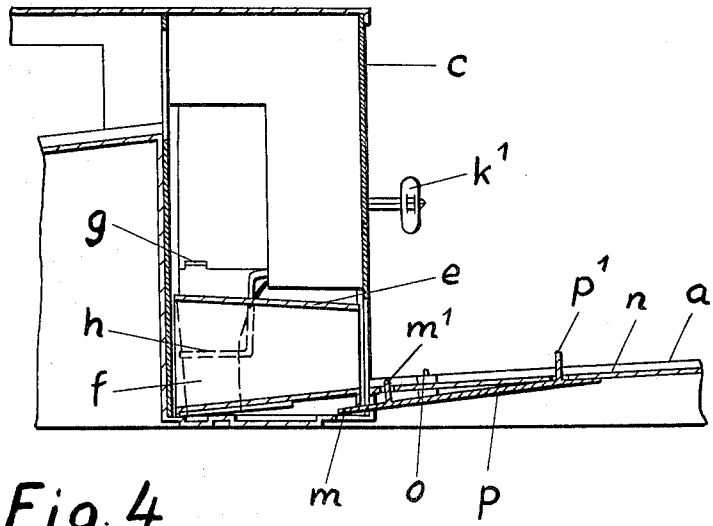


Fig. 4

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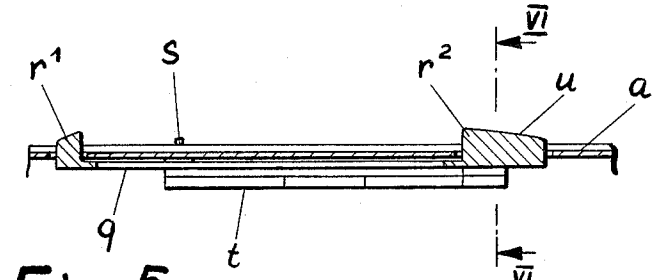


Fig. 5

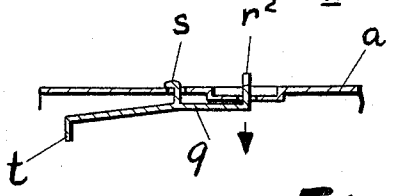


Fig. 6

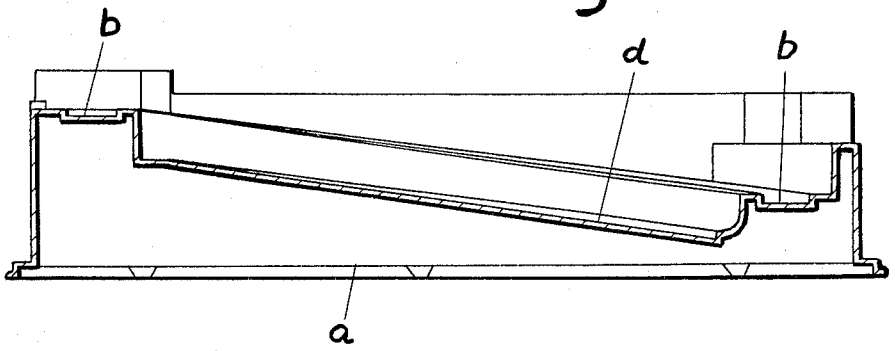


Fig. 7

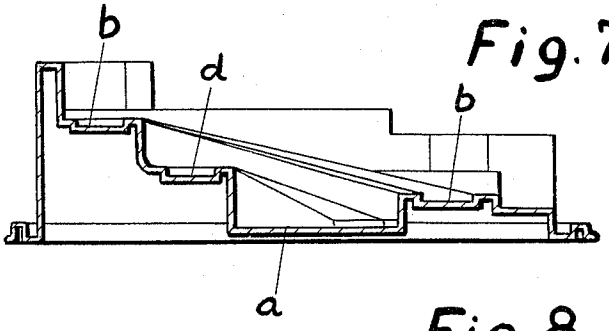


Fig. 8

United States Patent Office

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TOY VEHICLE TRACK ELEVATING DEVICE

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Claims priority, application Germany, Feb. 22, 1964, E 26,462
2 Claims. (Cl. 46—202)

The invention relates to a toy with a track for toy vehicles, for example motor cars. These can have their own driving means; but these can be dispensed with if the track is to a great extent sloping.

The object of the invention is to add to the interest of the children playing with such a toy by providing a "skyscraper" car park.

Therefore it is a toy of the type mentioned at the outset which is characterized in that between the lower portion at the end of the track and the higher portion at the commencement thereof a "skyscraper" car park is located in which the toy vehicles can be raised from the end of the track to an exit at the commencement thereof.

To put this idea into effect, an elevator platform or cage can be raised and lowered in the "skyscraper" car park and controls a stop provided at the entrance to the track.

The construction is preferably so designed that the elevator cage can be raised by a swivel lever engaging the cage, for example underneath, and descends under its own weight. This swivel lever can in turn be actuated by a crank acting on the under side and driven by a separate driving mechanism, such as a clockwork motor, a fractional horsepower electric motor or the like.

A nose on the swivel lever projects into the track and preferably serves as stop in front of tthe entrance to the car park which is controlled by the elevator cage. The swivel lever is preferably a two-armed lever, one arm of which carries the stop at the entrance to the car park and the other another stop in advance thereof.

According to another feature a stop is also provided on the track in front of the exit from the skyscraper car park and preferably arranged in such a way that it is disengaged by the next vehicle running out from the car park. The construction is preferably such that the run-out stop has a nose projecting into the track which arrests a vehicle running out from the car park. This nose is provided on a swivel lever which also has a second stop which is depressed by the next vehicle running out of the car park, thereby releasing the vehicle arrested by the other stop.

By the invention the interest in toys of this type is considerably increased. The child playing with the toy can allow the motor cars to run into the skyscraper car park. It can also see how the cars again leave the car park at the end of the parking time. At the same time a particular advantage is that both the entrance and also the exit of the car park are controlled in a simple yet reliable manner so that the vehicles cannot collide and it cannot happen that a vehicle runs into or out from the car park unintentionally and thereby becomes wedged.

An embodiment of the invention is illustrated by way of example in the accompanying drawings, in which:

FIG. 1 is a perspective view of the toy according to the invention;

FIG. 2 a section on line II—II of FIG. 1;

FIG. 3 a section on line III—III of FIG. 1 with the elevator cage in its upper end position;

FIG. 4 a similar section to FIG. 3 with the elevator cage in its lower end position;

FIG. 5 a section on line V—V of FIG. 1 taken through the swivel lever carrying the exit stop;

FIG. 6 a section on line VI—VI of FIG. 5;

FIG. 7 a section on line VII—VII of FIG. 1, and

FIG. 8 a section on line VIII—VIII of FIG. 1.

The toy comprises substantially a base plate *a*, a track *b* and a skyscraper car park *c*. The track slopes downwards from the exit from the car park to the entrance thereof so that vehicles can be used which are not self-propelled, but if the track is differently shaped driven vehicles can also be guided thereon.

As indicated in the drawing another track *d* can also be provided which can lead to a second entrance and a second exit.

An elevator platform or cage *e* can be raised and lowered in the skyscraper car park, in the example illustrated by means of a swivel lever *f* which is pivoted at *g* and engages the underside of the cage *e*. This lever *f* is swung up and down by a crank arm *h* acting on its underside and driven by clockwork mechanism *i* which can be wound by means of the arbor *k* carrying a handle k^1. The clockwork mechanism is controlled in known manner by means of a lever *l* the end l^1 of which is brought into and out of the range of movement of a rotary part of the clockwork mechanism.

The elevator platform or cage *e* passes from the position shown in FIG. 3 into its initial position shown in FIG. 4 under its own weight.

In moving into this position it operates a run-in stop consisting of a swivel lever *m* with a nose m^1 projecting into the track *n* directly in front of the entrance to the car park. The lever *m* is pivoted at *o* and is pressed by the descending cage *e* out of the position shown in FIG. 3, in which the vehicle ready to enter the car park has been arrested by the nose m^1, into the position shown in FIG. 4 so that this vehicle can run into the cage *e*.

As already mentioned, the swivel lever *m* is preferably a two-armed lever. On its arm *p* a nose p^1 serving as advance stop also projects through the track *n*. This nose p^1 holds back the next oncoming vehicle until the vehicle ready to enter the car park has run on to the platform or cage *e* and this ascends. The lever *p* then swings back into the position shown in FIG. 3 so that the vehicle arrested by the advance stop p^1 can move forward until it comes into contact with the nose m^1 and is then held in a position ready to enter the cage *e*.

It has already been mentioned that a track stop is also coordinated to the exit from the skyscraper car park. This likewise consists of a swivel lever *q* with two noses r^1 and r^2 projecting through the track. This lever *q* is pivoted at *s* and has a bar *t* serving as counterweight. The vehicle running out from the car park depresses the nose r^2 provided with an inclined run-on surface *u* and thereby swings the lever *q* in downward direction in the direction of the arrows shown in FIGS. 5 and 6. The nose r^1 is thereby lowered so that the vehicle hitherto arrested thereby is released and can start running down the track. As soon as the vehicle running out from the car park has passed over the nose r^2 the lever *q* swings back into its initial position under the action of the counterweight *t* so that both noses r^1 and r^2 again project above the track with the result that the vehicle which has just depressed the nose r^2 strikes against the nose r^1 and is arrested until the stop is again released by the next following vehicle.

As shown in the drawing, the exit from the skyscraper car park or the beginning of the track can be provided with a roof *v* or covered in.

What I claim is:

1. A toy comprising: a track having a gradual slope for toy vehicles such as toy motor cars; a "sky-scraper" car park between the lower portion at the end of said track and a higher portion at the beginning of said track, said car park having an entrance at said track end and an exit

at said track beginning; an elevating device connecting the beginning and end of said track; and first and second stops for arresting the toy vehicles at said entrance and said exit respectively, said first stop comprising a two-armed swivel lever controlled by said elevating device and one arm of which carries run-in stop means arresting the first vehicle arriving and the other arm carries advance stop means spaced from the entrance to said car park arresting the next and further vehicles arriving.

2. A toy according to claim 1, wherein said second stop at the exit from the car park comprises swivel lever means having a first nose means projecting into the track arresting the vehicle which has left the car park and having second nose means directly in front of the exit from said car park which is depressed by the next vehicle leaving the car park thereby swinging the lever means and removing the stop arresting the vehicle which has already left the car park.

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LOUIS J. BOVASSO, *Examiner.*

F. B. LEONARD, *Assistant Examiner.*