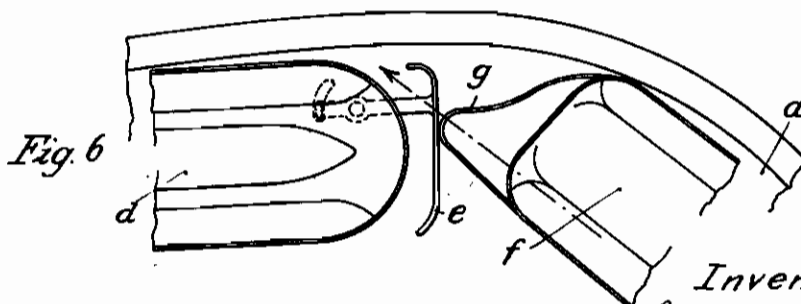
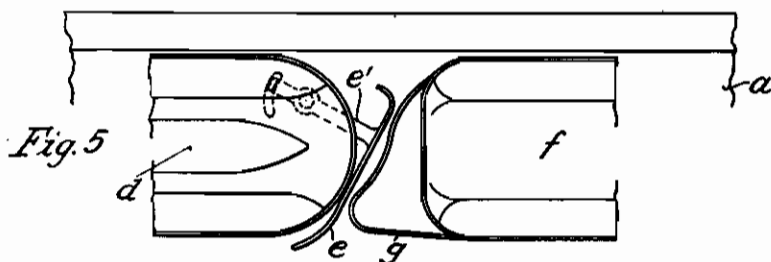
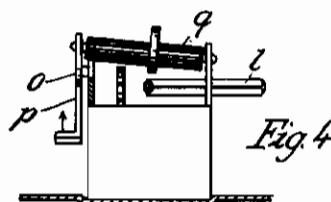
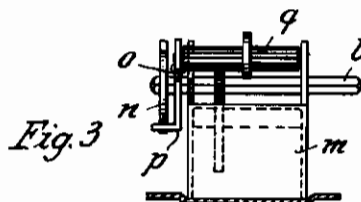
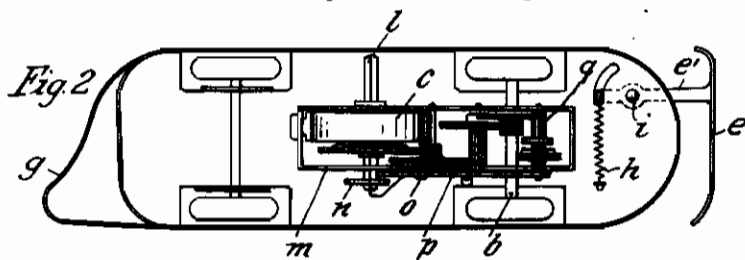
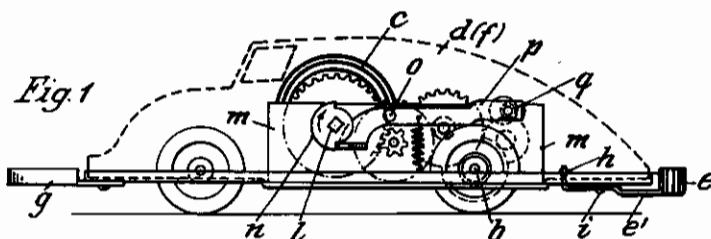


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TRACKS FOR TOY VEHICLES
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ALIEN PROPERTY CUSTODIAN

TRACKS FOR TOY VEHICLES

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Application filed August 23, 1940

This invention relates to tracks for toy vehicles, such as toy automobiles, and has for its principal object to devise a track of this kind which is adapted to serve for toy vehicles of which one is overtaking the other, said vehicles including deflecting devices in the form of a push-rod mounted swingeably about a fixed point of each vehicle and adapted to deflect the vehicle travelling at higher speed from its direction of travel, when overtaking another which is travelling at smaller speed in front of the same. In order to again carry the vehicle, after having overtaken the other, towards the elevated rim of the track, the latter is inclined in direction to the right-hand side with respect to the direction of travel.

An arrangement of this kind is disclosed and claimed in a co-pending application for U. S. Patent, filed by Walter Minner of Erfurt, Germany.

According to my invention, now, the aforementioned track and toy vehicles are arranged in a novel manner permitting the vehicles of being driven at varying speed, so that they may alternately overtake each other in such a manner that at a time the one vehicle will be in front and at some other time in the rear of the other vehicle. By this novel arrangement there is created the impression of an automobile race in which case the automobiles alternately overtake one another.

In order to attain alternately varying speeds of the vehicles, according to my invention each vehicle is further provided with a switching device which is automatically controlled by the motion of the drive and acts onto the axle of the speed regulator. This switching device may, for instance, consist of a resiliently mounted lever, preferably a double-armed lever, controlled by a cam-shaft fast on the winding-up axle of the clockwork driving the vehicle, said lever forming a bearing for said axle and disengaging the latter from the drive, with the result that the clockwork will run off more rapidly.

In the accompanying drawing I have represented an example of the track and the vehicles constructed in accordance with my invention. In the drawing, Fig. 1 is a side-view of the carriage of a vehicle together with the clockwork driving the same, Fig. 2 a plan-view taken on Fig. 1, Figs. 3 and 4 are views showing details of the construction, Fig. 5 is a partly broken-away top-view of the two vehicles at the moment before overtaking on a straight track and Fig. 6 a similar view of the two vehicles at the moment before overtaking on a curved track.

Referring more particularly to the drawing,

the vehicle is driven by a clockwork including a spring *c* which may be wound-up by means of the winding-up axle *l* mounted rotatably in the frame *m* of the clockwork. The rear axle *b* is being driven by the spring *c* in known manner by way of an intermediate train of gear-wheels and pinions. The rear axle may be rotated at a smaller or greater speed, when the regulator axle *q* is disengaged from or engaged with the clockwork, respectively. Said regulator axle *q* is mounted at the end of a double-armed lever *p*, which on its part is mounted swingeably about the axle *o*. The latter is mounted within the frame of the clockwork. The other end of said double-armed lever *p* is controlled by means of a cam-shaft *n*, said lever being pressed by action of a spring against the periphery of said cam-shaft. The speed regulator axle *q* will be engaged with the clockwork, as shown in Fig. 3 and, accordingly, the vehicle will travel at a smaller speed, as long as the end of said double-armed lever *p* is resting on the part of the periphery of said cam-disk with the smaller diameter. On the other hand, the speed regulator axle *q* will be disengaged from the clockwork and the latter, accordingly, rotate at a time at a smaller and at some other time at a greater speed, when the cam-disk *n* is rotating with the winding-up axle *l* by action of the spring and when the left-hand arm of the double-armed lever *p* rests on the part of the periphery of the cam-disk with the greater diameter.

As shown in Fig. 5, in which case the vehicles are in condition just before overtaking on a straight track, the fixed push-rod *g* provided in front of the rear vehicle *f* will abut against the swingeable push-rod *e* provided in the rear of the front vehicle *d*.

In condition of overtaking of the vehicles on a curved track as shown in Fig. 6, the longitudinal axes of the two vehicles form an angle with each other and, accordingly, the swingeable lever *e* at the end of the front vehicle *d* is not given a swinging motion, but pressed towards the right-hand side, when the push-rod *g* of the rear vehicle *f* is abutting against the swingeable lever *e* at the rear end of the front vehicle *d*.

Preferably, the cam-disks *n* on the winding-up axles for the clockworks of the vehicles are displaced against each other by an angle of about ninety degrees, with the result that the two vehicles will be travelling at different speeds. The two vehicles, accordingly, will alternately overtake each other, the cause proper for such alter-

nate overtaking being not cognisable to the observer.

The movable deflecting organ may be provided at the rear end and the fixed deflecting organ at the front end of each vehicle, the same as in the construction forming part of the aforementioned co-pending application. However, the said deflecting organs may also be arranged in the opposite way, that is the movable deflecting organ may be provided at the front end and the fixed deflecting organ at the rear end of the vehicle. In every case the movable deflecting

organ is mounted with its arm e' swingeably about the point i and will be kept in position of rest by means of a spring h . On the other hand, the fixed deflecting organ is preferably inclined or provided with an elevated part, so that during co-operating with the movable deflecting organ of a second vehicle travelling in front of another vehicle the lateral deflection of the vehicle travelling in the rear, when overtaking the vehicle travelling in front, may be performed with a minimum of friction or other obstruction.

ERNST HORN.