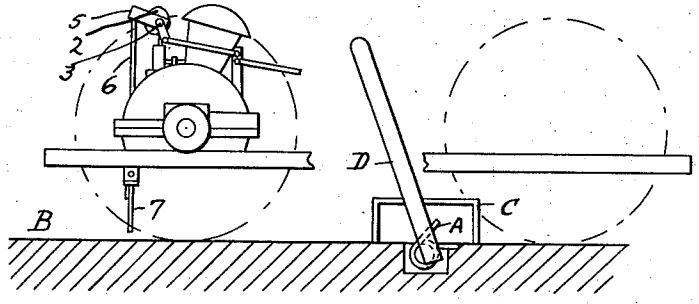
Oct. 12, 1937. C. H. HARRISON 2,095,413

MEANS FOR ARRESTING AMUSEMENT CARS

Filed Jan. 6, 1937 2 Sheets-Sheet 1

Fig. 1



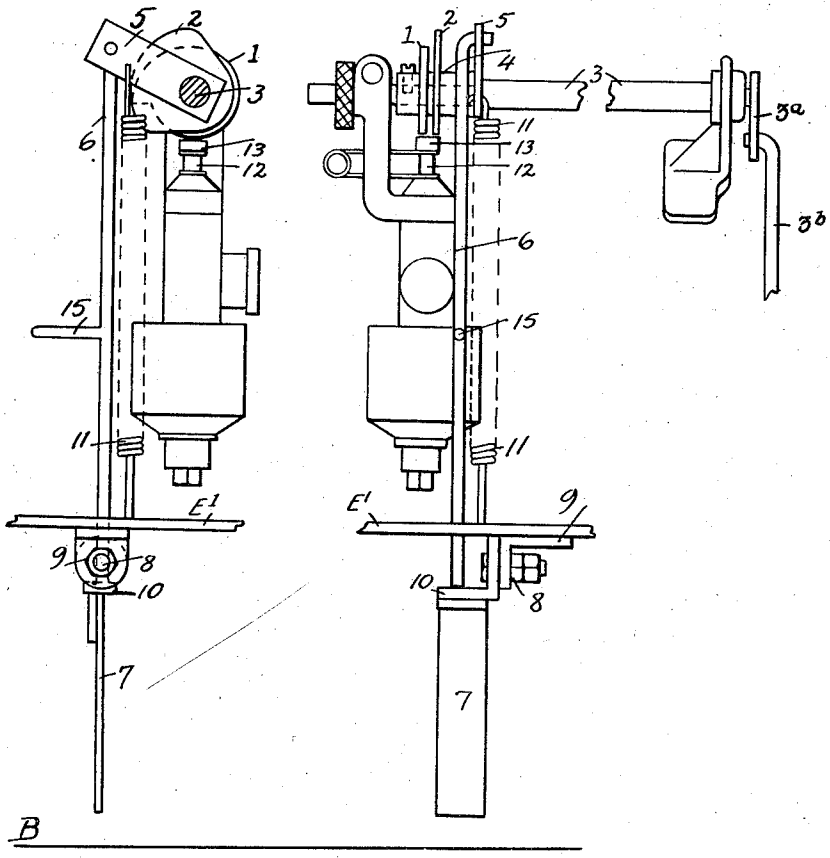


Fig. 1A

Fig. 2

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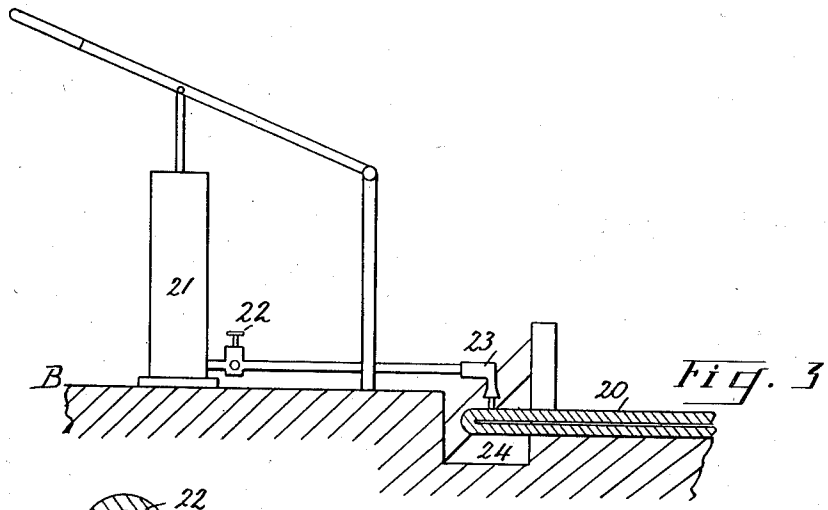

Fig. 3

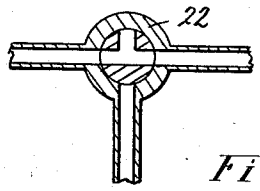

Fig. 4

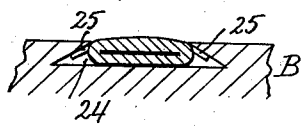

Fig. 5

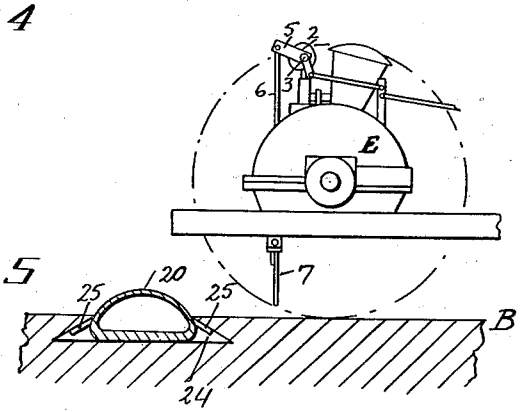

Fig. 6

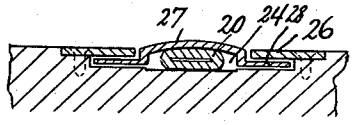

Fig. 7

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MEANS FOR ARRESTING AMUSEMENT CARS

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Application January 6, 1937, Serial No. 119,337
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2 Claims. (Cl. 104—60)

The invention relates to means for arresting individually driven motor propelled amusement passenger carrying cars on their track and has for its object to provide automatic means operable in such manner that the cars may be stopped at will by the attendant from a position other than on the track.

In its broadest aspects, the invention contemplates the provision of a manually operable trip to be located in the trackway in such manner that an attendant may elevate said trip to cause it to lie in the path of movement of a depending control member carried by a car, the movement of which is to be arrested. When the control member strikes the trip, suitable control mechanism, hereinafter described, is actuated to bring the car to a stop. The mechanism, after being once actuated, must be manually reset before the car can be again set in operation.

In the accompanying drawings:

Figure 1 is a fragmentary side elevation of a car and its associated track trip;

Fig. 1*a* is an enlarged side view of the control mechanism of the car;

Fig. 2 is a front view of the mechanism illustrated in Fig. 1*a*;

Fig. 3 is a view partly in section and partly in elevation of a pneumatically operated trip mechanism;

Fig. 4 is a sectional view of a two-way valve, hereinafter described;

Fig. 5 is a sectional view of the inflatable trip in its deflated condition;

Fig. 6 is a view partly in section and partly in elevation showing the trip strip of Fig. 5 inflated and with a car approaching the same, and

Fig. 7 is a sectional view of a modified form of inflatable trip strip.

Like numerals designate corresponding parts throughout the several figures of the drawings.

Referring now to Fig. 1, B designates a trackway upon which a car E is adapted to travel. A manually operable lever D serves, when manipulated by an attendant, to raise or lower a yieldable trip A, the body portion of which is located in a trough C, below the level of the trackway. When elevated, the trip A lies in the path of movement of a control lever 7 and when this lever is swung rearwardly, under its engagement with the trip A, the motor is rendered inoperative with respect to the car.

It is clear that many ways will readily suggest themselves to those skilled in the art, of cutting off the power to the car when the member 7 is moved. For example, in the case of an electrically propelled vehicle, movement of member 7 could be utilized to control a conventional type of switch to cut off the electric current. However, since the majority of motor vehicles are now propelled by internal combustion motors, I have chosen to illustrate the invention as being applied to a car of that type.

Referring now particularly to Figs 1*a* and 2, the numerals 1 and 2 designate a pair of cams. The cam 1 is mounted upon the conventional accelerator shaft 3 of the engine. A crank 3*a*, upon the end of this shaft, and a manually operable rod 3*b* provide means for imparting partial turning movement to shaft 3 to cause the cam 1 to thrust downwardly upon the head 13 of the fuel control valve 12 of the engine. These parts are of conventional form.

In carrying out the invention, I loosely mount upon shaft 3 a hub or sleeve 4, by which the second cam, 2, is carried. This second cam overlies the head 13, and the sleeve 4 carries a crank arm 5 to which the upper end of a rod 6 is pivoted. The upper end of a spring 11 is connected to the arm 5, and the lower end of this spring is connected to a part of the car frame indicated at E^1.

Thus it will be seen that movement of the valve 12 may be effected by manipulation of rod 3*b* independently of cam 2 and its associated parts, and it will also be seen that the spring 11 is constantly tending to move cam 2 in such direction as to cause it to thrust downwardly upon the head 13 and thus bring the motor to a stop.

This tendency of the spring 11 to move the cam 2 as described is resisted by the rod 6, the lower end of which is normally supported upon a transverse extension 10 of the member 7. This member 7 is pivoted at 8 upon a bracket 9 of the car frame E^1. When the member 7 strikes the trip, its portion 10 is moved from beneath the lower end of the rod 6, and said rod is caused to snap downwardly under the influence of spring 11. This turns cam 2 to cause it to thrust downwardly upon the head 13.

The motor is thereupon rendered inoperative with respect to the car, as previously described, and it cannot again be brought into operation until the attendant, by grasping a handle 15 of rod 6, elevates said rod enough to permit extension 10 to be positioned beneath the lower end of rod 6 to again support the same in elevated position against the action of spring 11.

In the pneumatic form of construction shown in Figs. 3 to 7, an inflatable track member 20 arranged across the track B, is connected to any suitable form of pump apparatus such as 21 or

a compressed air cylinder through a two way cock 22 and a detachable connection 23. When the member 20 is inflated as seen in Fig. 5 it stands above the track and as the contact member 7 of the vehicle comes in contact therewith, the mechanism on the vehicle is operated as previously explained to bring the car to a standstill. When the cars have been loaded with fresh passengers, the air in the inflated member 20 is allowed to exhaust itself through the two way cock 22 as will be easily understood, and said inflatable member 20 lies in its recess 24 out of the way of the contact member 7. Such inflatable member 20 is held in place by lugs 25 provided thereon and secured if desired to the track or to the sides of the recess 24.

In the modification shown at Fig. 7 the inflatable member 20 serves to inflate an outer casing 27 of stouter material capable of greater wear resistance, the edges 28 of the latter being appropriately secured beneath the track B such as by the flanges 26.

I claim:—

1. The combination with a car and a motor thereon, of controlling mechanism for said motor comprising a control valve, said valve including a longitudinally movable head, a pair of cams overlying said head, an oscillatory accelerator shaft upon which one of said cams is mounted, manually operable means for moving said shaft and cam for the manual control of said valve, a sleeve loosely mounted upon the accelerator shaft, by which the other of said cams is carried, a crank arm upon said sleeve, means tending to turn said crank arm in one direction, a rod pivotally connected to said arm and resisting the movement of said means, a pivoted control member normally under-lying said rod but adapted to be swung from beneath said rod when the control member engages an obstruction upon the track, and a manually operable trip positioned to constitute such obstruction.

2. The combination with a trackway and a car adapted to travel thereon, of an internal combustion motor for propelling said car, a throttle valve for the motor, a cam overlying said motor and adapted when turned to actuate said valve, a crank connected to the cam, a spring engaged with said cam and with a part of the car frame, said spring tending to turn the cam in a direction to actuate said valve, a control member comprising a swingingly mounted part pivoted to the car frame adjacent the lower end of said rod and comprising an extension adapted to underlie the lower end of said rod, as and for the purposes set forth.

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