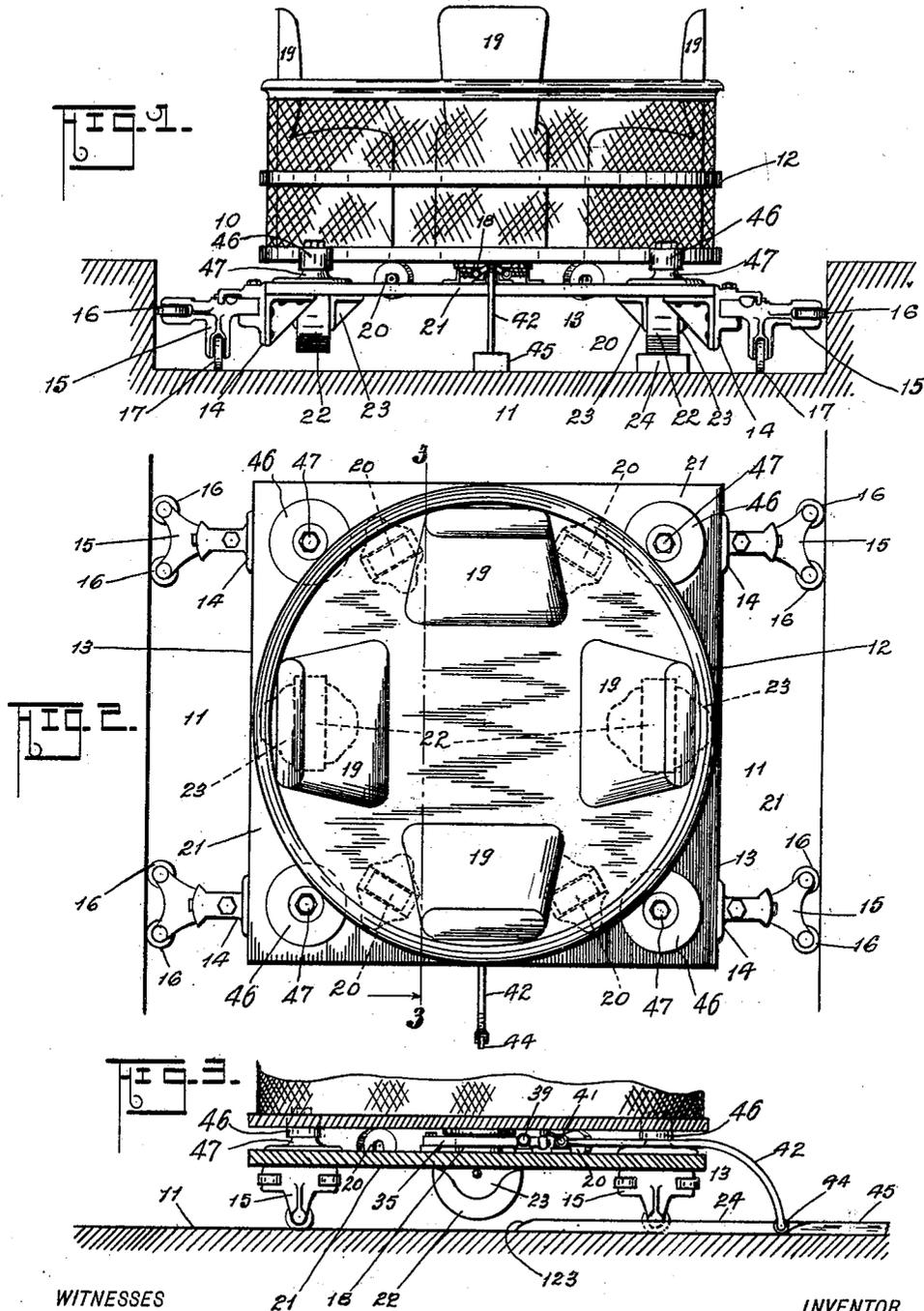


A. G. SHERK.
 PLEASURE RAILWAY.
 APPLICATION FILED JULY 14, 1908.

922,052.

Patented May 18, 1909.

2 SHEETS—SHEET 1.



WITNESSES
Friedrich Hermann
John W. Kampfer

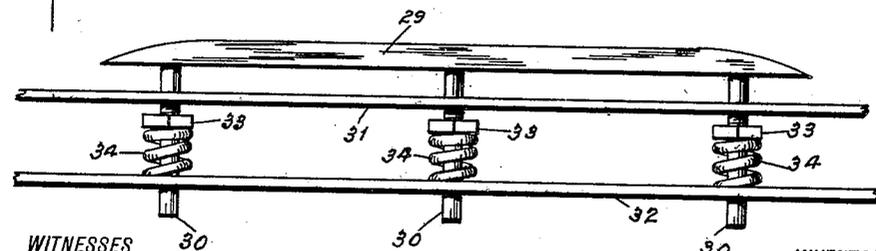
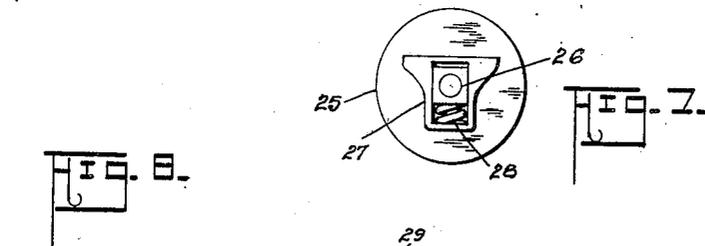
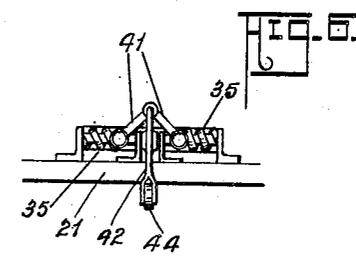
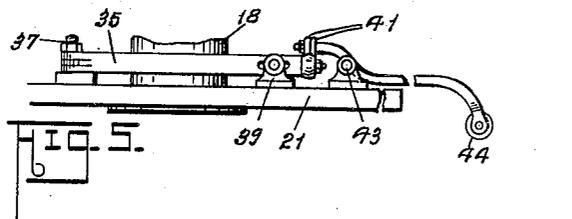
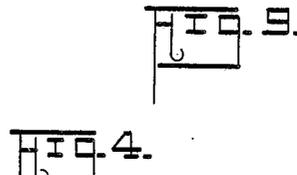
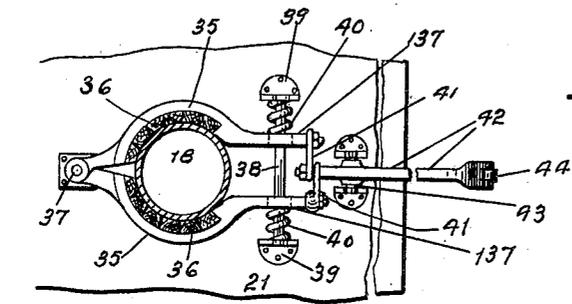
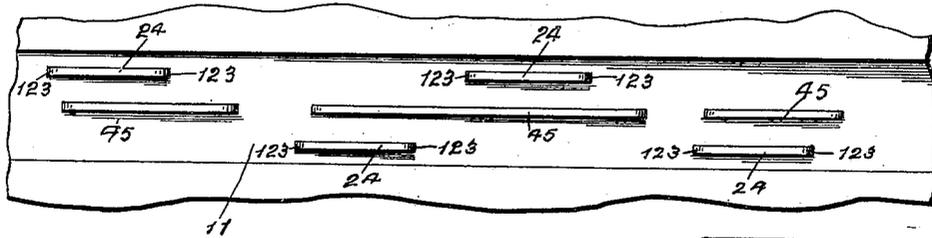
INVENTOR
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 PLEASURE RAILWAY.
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2 SHEETS—SHEET 2.



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ANDREW G. SHERK, OF NEWARK, NEW JERSEY.

PLEASURE-RAILWAY.

No. 922,052.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed July 14, 1908. Serial No. 443,416.

To all whom it may concern:

Be it known that I, ANDREW G. SHERK, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain Improvements in Pleasure-Railways, of which the following is a specification.

This invention relates to that class of railways in which a car having a truck constantly traveling forward on parallel tracks is provided with a body portion adapted to rotate or to be rotated at predetermined intervals.

The objects of the invention are to secure an improved construction of means for rotating the body portion of such a car; to secure stability and safety and to gradually impart to the body of the car its rotary motion; to provide locking means for holding the car against inadvertent rotation; to provide operating means for simultaneously releasing said locking means and rotating the car, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings, in which like numerals of reference indicate the same parts in the several figures, Figure 1 is a front elevation of a car embodying my improvements, with the track in cross-section, and Fig. 2 is a plan of the same; Fig. 3 is a vertical longitudinal section of the car taken on line 3, 3, Fig. 2, and looking in the direction indicated by the arrow; Fig. 4 is a plan view of certain mechanism for locking the car body against rotating, and Figs. 5 and 6 are side and front views, respectively, of the same; Fig. 7 shows in side elevation a modified construction of friction wheel, and Fig. 8 illustrates in side elevation a modified form of friction board; Fig. 9 is a diagrammatic plan of a section of the track illustrating the disposition of the friction boards.

In said drawings, 10 indicates a car of my improved construction, and 11 a depressed track of usual construction for the same. Said car comprises an upper body portion 12 and a lower truck 13, said truck having at its opposite side edges, near the front and rear, brackets 14 in which are hinged arms 15 carrying outwardly and downwardly facing traction wheels 16 and 17, respectively. These brackets, arms and wheels are of ordinary and well-known construction, so that the truck of the car travels along the track 11 as is usual in such railways.

The body 12 is adapted to receive the passengers, and is rotatably mounted upon the truck 13 by a central king bolt 18 or other equivalent means. The said body is preferably circular in form, as shown, and is provided with seats of any suitable kind, as indicated at 19. Radially outward from the said king bolt 18, the body 12 rests at its under surface upon rollers mounted in the platform of the truck, and thus the said body is held level while at the same time permitted to rotate freely. Of these said rollers, some, as marked with reference numeral 20, serve only to support the body of the car, extending only slightly if at all below the platform 21 of the truck. Two of the rollers, however, marked 22, are of larger diameter, so as to be pivoted in brackets 23 upon the bottom of the platform 21 and extend a considerable distance beneath said platform, as well as reaching upwardly through it into engagement with the car body 12. These two rollers 22 are arranged in planes extending longitudinally of the car and at opposite sides thereof midway of its length, preferably. The car body 12 is thus adapted to rotate upon its king pin 18, if either of the rollers 22 revolves, and in either direction according to which roller is turned. Furthermore, it will be noted that the said rollers 22 have smooth peripheries, as opposed to gear wheels or star wheels, and thus motion is transmitted by them to the car body to turn the same, frictionally, and not positively. By this means, the car body 12 is not started rotating with a suddenness and shock which is both disagreeable and dangerous, but the rollers and body portion will slip at their point of engagement until the body part has approximated the speed of the rollers. The rotation of the car body is thus started or produced gradually and evenly. In order to rotate the said rollers 22, one at a time, so as to cause the car body 12 to revolve, the same are adapted to have brought into engagement with their lower edges certain portions of the track or surface over which the car is traveling, so that the frictional retardation will cause the roller to rotate. In the drawings, I have shown this accomplished by means of friction boards 24, raised from the floor of the track and extending longitudinally thereof. These friction boards are located at those points along the track where it is desired to have the car turn, and are

given length according to the duration of turning desired. The boards project sufficiently above the track to engage the rollers 22 with just enough friction, and the direction in which the car is to be turned by a given friction board is determined by the side of the track at which the friction board is placed. The ends of the friction boards are preferably beveled or inclined as at 123, to insure their gradual engagement with the rollers 22, and thus further avoid sudden shock to the car in starting its rotation.

Under some conditions, friction rollers 25 may be pivoted in boxes 26 which are slidably and resiliently supported in the brackets 27 by springs 28, as illustrated in Fig. 7, and thus the friction roller allowed a certain amount of movement to adjust itself independent of the truck of the car. Adjustability of the engagement of the rollers with the friction boards may further be secured by supporting said friction boards upon springs, as shown in Fig. 8. Here 29 illustrates a friction board having pins or feet 30 passing downward through perforated guide strips 31, 32, and having on themselves nuts 33 which can be screwed up or down. Between each of these nuts and a fixed stop, as the guide strip 32, is arranged a spiral spring 34 upon the pin 30 and which tends normally to hold the friction board upward, while not preventing its slight depression if necessary when the friction roller of the car engages it. Obviously, by this construction, the friction board can be adjusted up and down without disturbing the tension of the supporting springs 34.

At such times as the car is not rotated by the friction boards described, it is desirable to lock it against rotation, since it might inadvertently turn in a dangerous manner at times, as for instance on a sharp curve or on an incline, because of the unequal distribution of the weight of passengers around the center. My invention therefore includes means for locking the car against rotation when desired, and such means are automatic in any suitable way so that when the car is not in engagement with the friction board it will be locked against turning. The particular locking means of that type which I have shown in the drawings comprise gripping arms 35, 35 suitably curved to grasp between themselves the king bolt 18 and being provided thereat with friction surfaces 36. These arms lie horizontally upon the platform 21 of the truck, fulcrumed upon a common pivot 37 thereon at the rear of the king bolt, and having their forward ends extending substantially parallel toward the front of the car as at 137, 137. These ends 137 are slotted to receive a horizontal guide bar 38 fixed upon the truck in brackets 39; and between said brackets and arms are spiral springs 40 which normally force the

arms toward each other or into locking engagement with the king bolt. The car body is thus normally held in fixed position with respect to its truck. For releasing the said brake arms 35, their ends 137 are provided with links 41, 41 which extend upward toward each other, after the manner of toggle levers, and are connected to the end of a lever 42 pivoted upon the forward end of the car truck platform, as at 43 and longitudinally of the same. The extreme forward end of this lever 42 reaches down over the edge of the truck platform and is provided with a friction wheel 44, so that when engaged by the track or a portion thereof the forward end of the lever will be raised, its rear end depressed and the toggle lever links 41 extended to force the gripping arms 35 apart to release the king bolt. Preferably tripping strips 45 are arranged upon the track after the manner of the friction boards 24 to engage the said friction roller 44 of the lever 42 at proper times and elevate the same. These tripping strips, as shown, lie in the middle of the track, between the two rows of friction boards, and obviously their length and disposition relative to the said friction boards is such as to disengage the brake means simultaneously with the engagement of the rotating means and to release the brake means as the rollers leave the friction boards.

It will be noted that the car body 12 during its rotation is steadied and held against lateral displacement by rollers 46 horizontally disposed upon vertical posts 47 on the truck 13 and which rollers bear against the sides of the car body. A very strong and safe construction of the car is thus obtained, so that its different movements may all take place without risk or danger.

Having thus described the invention, what I claim as new is:

1. In a pleasure railway car, the combination with a truck portion, a body portion rotatably mounted on said truck portion, a roller mounted on said truck portion adapted to frictionally engage both the body portion and the surface over which the car is passing, and friction means between said body portion and truck portion for preventing relative rotation of said parts.

2. In a pleasure railway, the combination of a car truck adapted to travel over a surface, a car body rotatably pivoted on said truck, friction boards upon the surface upon which the car travels, and rollers adapted to frictionally engage said boards and the car body.

3. In a pleasure railway, the combination of a car truck adapted to travel over a surface, a car body rotatably pivoted on said truck, friction boards upon the surface upon which the car travels, and rollers mounted upon the car truck adapted to engage at their

upper edges the car body and at their lower edges the said friction boards.

4. In a pleasure railway, the combination of a car truck adapted to travel over a surface, a car body rotatably pivoted on said truck, a roller mounted on said truck projecting upward from the same into engagement with the car body and extending downward below the truck, and means upon the surface upon which the car travels for frictionally engaging said roller.

5. The combination with a track, of a car having a truck portion adapted to travel longitudinally of said track and a body portion rotatably mounted on said truck portion, a friction board upon the said track, and a roller upon the truck portion adapted to engage at its upper edge the car body and at its lower edge the said friction board.

6. In a pleasure railway car, the combination of a truck portion adapted to travel over a surface, a body portion rotatably pivoted on said truck portion, means adapted to frictionally transmit motion from said surface to rotate said body portion, and means for locking said body portion against rotation.

7. In a pleasure railway, the combination of a car truck portion adapted to travel over a surface, a car body rotatably pivoted on said truck, friction boards upon the surface upon which the car travels, rollers adapted to frictionally engage said boards and the car body, and means for locking said body against rotation.

8. In a pleasure railway, the combination of a car truck adapted to travel over a surface, a car body rotatably pivoted on said truck, friction boards upon the surface upon which said car travels, rollers mounted upon the truck adapted to engage at their upper edges the car body and at their lower edges the said friction boards, and means for locking said car body against rotation.

9. In a pleasure railway, the combination of a car truck adapted to travel over a surface, a car body rotatably pivoted on said truck, a roller mounted on said truck projecting upward from the same into engagement with the car body and extending downward below the truck, means upon the sur-

face upon which the car travels for frictionally engaging said roller, and means for locking said body against rotation.

10. The combination with a track, of a car having a truck portion adapted to travel longitudinally of said track and a body portion rotatably mounted on said truck portion, a friction board upon the said track, a roller upon the truck portion adapted to engage at its upper edge the car body and at its lower edge the said friction board, and means for locking said body portion against rotation.

11. In a pleasure railway car, the combination of a truck portion, a body portion rotatably pivoted on said truck portion, and friction means between said body portion and truck portion for preventing relative rotation of said parts.

12. In a pleasure railway car, the combination of a truck portion, a body portion, a king pin pivotally connecting said truck portion and body portion and being fixed with respect to one of them, and means upon the other one for engaging said king pin to prevent rotation.

13. The combination with a track, of a car having a truck portion, a body portion and a king pin upon said body portion rotatably connecting it to the truck portion, brake means upon the truck portion for said king pin, and means for operating said brake adapted to be engaged by the track.

14. The combination with a track, of a car having a truck portion, a body portion rotatable with respect to said truck portion, a brake upon said truck portion for the body portion, an operating lever for said brake projecting toward the track, and trip means on said track to engage said lever.

15. In a pleasure railway car, the combination of a truck portion, a roller mounted in said truck portion and adapted to frictionally engage a surface over which the car is passing, and a body portion rotatable on said truck portion and frictionally engaging said roller.

ANDREW G. SHERK.

In the presence of—

BERTHA S. FULTON,

FREDERICK GERMANN, Jr.