

Sept. 17, 1929.

E. B. CHRISTY

1,728,332

COMBINATION COASTER AND SLIDE

Filed Sept. 7, 1927

2 Sheets-Sheet 1

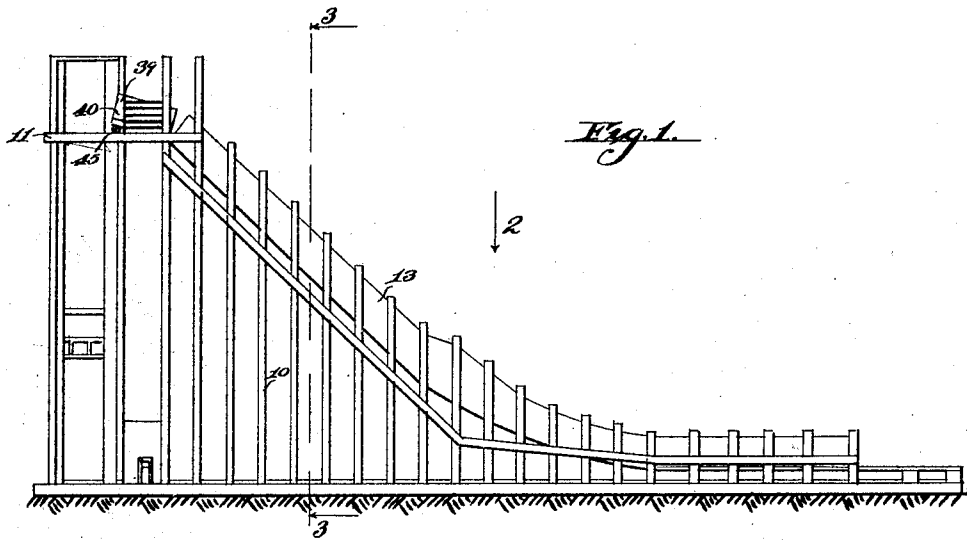


Fig. 2.

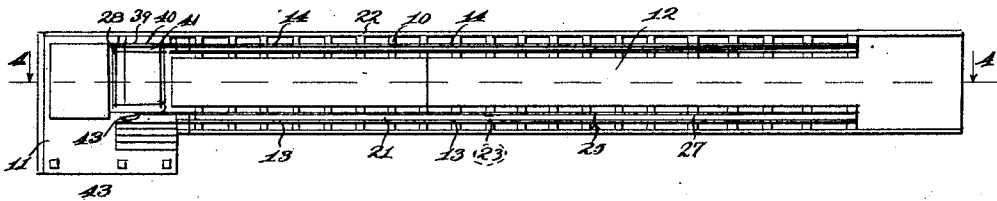


Fig. 3.

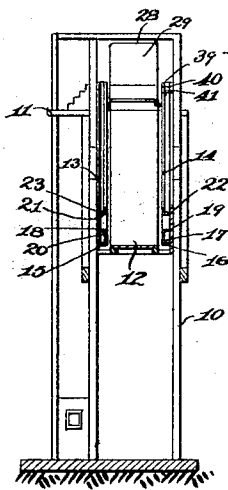
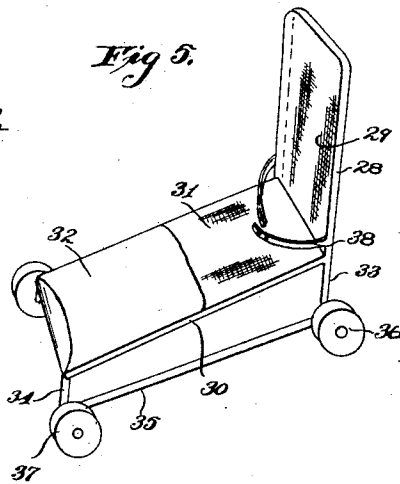


Fig. 5.



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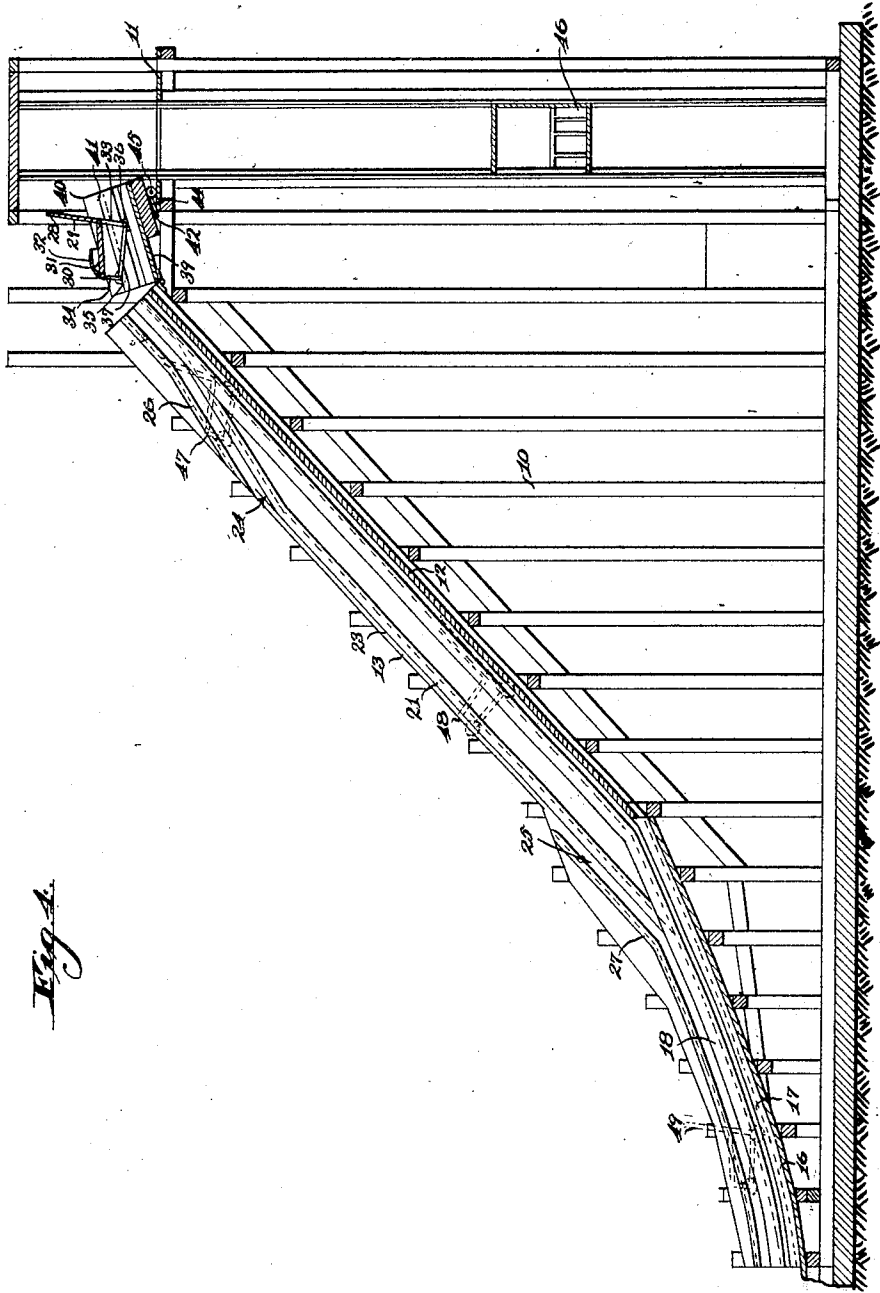
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2 Sheets-Sheet 2



*Fig. A.*

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## UNITED STATES PATENT OFFICE

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## COMBINATION COASTER AND SLIDE

Application filed September 7, 1927. Serial No. 217,991.

This invention relates to improvements in amusement devices and particularly to that type of devices commonly called "coasters."

5 An object of the invention is to provide a novel form of amusement device wherein there is a combined form of roller coaster and slide having a sliding surface and rails with a carrier adapted to slide on the sliding surface and having rollers engaging the rails serving to guide the carrier as it slides down the slide.

10 Another object of the invention is to provide an improved amusement device having the above mentioned features, wherein the rails are so formed as to produce a tilting of the carrier relatively to the slide so that the carrier may have its back engage the slide and slide thereon during the part of the journey or movement from the top of the slide to the bottom.

15 With the foregoing and other objects in view which will be made manifest in the following detailed description and specifically pointed out in the appended claims, reference is had to the accompanying drawings for an illustrative embodiment of the invention, wherein:

20 Figure 1 is a view in side elevation of the improved amusement device.

25 Fig. 2 is a top plan view of the same.

Fig. 3 is a vertical section taken substantially upon the line 3—3 upon Figure 1.

30 Fig. 4 is a vertical section taken substantially upon the line 4—4 upon Figure 2.

35 Fig. 5 is a perspective view of the carrier.

40 Referring to the accompanying drawings wherein similar reference characters designate similar parts throughout, the improved amusement device consists of a plurality of supporting posts 10 which may be erected on the ground or on a pier or at any other suitable location. These supporting posts can be braced together in any suitable manner and serve to support an elevated platform 11 from one side of which extends an inclined gravity slide 12 which may be formed of wood and which has a polished upper surface. The upper ends of the sup-

porting posts extend above the slide 12 and serve to support side walls 13 and 14. On the side walls 13 and 14 there are secured rails 15 and 16 respectively which have upwardly extending flanges 17, and these rails constitute lower pair of rails arranged at the sides of the slide 12. A complementary pair of rails 18 and 19 are secured to the side walls 13 and 14 respectively, and these rails have downwardly extending flanges 20 which are spaced slightly from the upwardly extending flanges 17. Another pair of rails 21 and 22 are fastened to the side walls above the lower pair of rails and these rails have upwardly extending flanges 23. As clearly shown upon Figure 4 the upper rails 21 and 22 vary in distance from the lower rails 15 and 16. Near the upper end of the slide the upper rails 21 and 22 are fairly close to the lower rails 15 and 16, and proceeding down the slide the upper rails 21 and 22 diverge from the lower rails as indicated at 24. From this point downwardly to a point near the bottom of the slide the upper rails 21 and 22 are shown as having the same distance from the lower rails. Beginning at a point indicated at 25, the upper rails 21 and 22 converge toward the lower rails 15 and 16 and remain approximately the same distance from the lower rails to the end of the slide. From the upper ends of the rails 21 and 22 to the point 24, rail sections 26 may be secured to the side walls 13 and 14 above the upper rails 21 and 22. These rail sections have downwardly extending flanges corresponding to the downwardly extending flanges 20 on the rails 18 and 19. In a similar manner rail sections 27 may be fastened to the side walls 13 and 14 from about the point 25 to the end of the slide, and these rail sections also have the downwardly extending flanges which are spaced slightly from the upwardly extending flanges 23 on the upper rails 21 and 22. If desired, the rail sections 26 and 27 on the side walls 13 and 14 may be connected together, but such construction is ordinarily not required. One or more carriers are provided such as is indicated in Figure 5.

Each carrier consists of a back frame 28 which serves to support a fabric back 29 which is preferably a heavy mat. A seat frame 30 is connected to the base of the back frame and serves to support a seat 31 which is also preferably formed of a heavy mat. A cover flap 32 is secured over the outer end of the seat forming a leg-receiving pocket for the legs of passengers. One side edge of this cover flap may be detachably secured to the seat frame so that the passenger may first seat himself upon the seat and then have the cover flap secured in place over his legs. Rear legs 33 and front legs 34 are provided on the carrier which may be connected by means of rungs 35. On the lower ends of the rear legs 33 there are mounted rollers or wheels 36, and in a similar manner a forward pair of rollers or wheels 37 is mounted for rotation on the lower ends of the forward legs 34. A strap or belt 38 may be provided which is fastened to the back frame 28 and which may be positioned or secured about the waist of the passenger or passengers. At the upper end of the slide 12 there is hinged a starting platform 39 having side walls 40 on which are mounted rails 41 which are capable of being brought into alignment with the rails 15, 16, 18, 19, 21, 22 and the rail sections 26. The platform 39 can be tilted so as to bring the rails into alignment by means of a rock shaft 42 operable as by a crank 43, and which has an offset portion 44 on which there is a roller 45. The roller 45 bears against the under side of the platform 39 so that on swinging the crank 43 the platform 39 will be tilted. Between the supporting posts 10 which serve to support the elevated platform 11, there is provided an elevator shaft of any suitable construction within which is movable an elevator 46. This elevator may be of any desirable construction and may be raised and lowered in any suitable manner by any suitable source of power.

The operation of the device is as follows:

The carrier may be elevated to the elevated platform 11 by means of the elevator 46, and passengers may also be taken up to the platform 11 on the elevator. When at the top of the elevator shaft the carriage may be moved from the elevator and placed upon the starting platform 39 with the forward pair of rollers 37 resting upon the upper rails 41 which are adapted to be placed in alignment with the upper rails 21 and 22. The rear pair of rollers 36 is placed between the rails 41 which are adapted to be placed in alignment with the rails 15, 16, 18 and 19. In such position the seat of the carrier assumes an approximately horizontal position while the back-rest 29 assumes an upright position. The passenger or passengers may then be seated on the carrier, and the cover

flap 32 and the belt 38 secured in place. An operator on the platform 11 then tilts the starting platform 39 by means of the crank 43 causing the rails 41 to assume an inclined position in alignment with the rails on the side walls 13 and 14. The carrier then rolls off the starting platform onto the inclined slide 12, the forward rollers engaging upon the rails 21 and 22 and below the rails 26, and the rear wheels engaging upon the lowermost rails 15 and 16 below the rails 18 and 19. Then, as the carrier moves downwardly upon the track thus provided, it first remains in a position wherein the seat is approximately horizontal and the back-rest upright. This is by virtue of the fact that the upper ends of the rails 15, 16, 21 and 22 are very close together. On approaching the point 24 wherein the upper rails diverge from the lower rails, the forward pair of rollers 37 will be caused to be lifted relatively to the lower rails 15 and 16. This produces a tilting of the carrier to the position illustrated in dotted lines at 48 wherein the back-rest 29 engages and lies flat upon the slide 12. In such position the passenger or passengers are resting on their back against the back-rest 29 which is sliding down the polished slide 12. During this sliding of the carrier between the points 24 and 25, the carrier is kept from turning on the slide 12 by the rollers which have their sides positioned against the flanges 17, 20 and 23, thus causing the carrier to slide in a straight manner down the slide 12. When the carrier approaches the point 25, the rollers 37 which are on the forward end of the carrier, engage the uppermost rail sections 27, and as the upper rails and lower rails begin to converge at this point, the carrier is gradually righted from the position shown at 48 to the upright position shown at 49. At the end of the travel of the carrier, the carrier will be in the upright position and the passengers may disembark and the carrier placed on the elevator 46 for a new journey.

The drawings illustrate the track or carrier as being straight, with the lower end of the track or slide being remote from the base of the elevator shaft. The construction of the improved amusement device is illustrated in this manner for ease of illustration. However, in the preferred form of construction, the track or slide is so formed that the lower end will be positioned near the base of the elevator shaft so that the carrier can be easily and quickly taken therefrom and placed on the elevator 46 so as to be lifted for a new journey. It will also be appreciated that it is not necessary to have the track and slide intermediate the points 24 and 25 straight. This portion may be so formed as to have dips if desired, and also the upper and lower rails can be caused to

converge and diverge a plurality of times between the points 24 and 25, so that the carrier can be righted and tilted several times during its journey or movement down the slide.

5 From the above described construction it will be appreciated that a novel form of amusement device is provided wherein there is a gravity slide or track which is so constructed as to cause the carrier which moves thereover to be tilted relatively to the track to vary the position of the passengers, giving delightful thrills.

15 It will be understood that various changes in the details of construction may be made without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

20 1. A device of the class described comprising means providing an inclined track, a carrier adapted to slide down the track, and means for causing the carrier to be tilted relatively to the track as it proceeds along the track.

25 2. A device of the class described comprising a slide, a carrier having a seat and back adapted to move over the slide, and means for tilting the carrier as it moves over the slide so as to cause the carrier to undergo part of its movement with the back resting on the slide.

30 3. A device of the class described comprising a gravity slide, a carrier having a seat and a back adapted to move over the slide, and means for causing the carrier to start over the slide in position in which the seat is approximately horizontal and the back upright, then to be tilted backward relatively to the slide, and finally to assume its original position at the end of the slide.

4. A device of the class described comprising an inclined track, a carrier having a seat and a back adapted to move over the track, and means for causing the carrier to start out on its movement in position wherein the seat is approximately horizontal and the back upright, then to be tilted from such position relatively to the track as the carrier moves along the track and finally to assume a position wherein the seat is approximately horizontal and the back approximately upright on approaching the end of the track.

5. A device of the class described comprising means providing a track having two pair of rails, one pair being located above the other and the distance between the pairs of rails varying along the track, a carrier adapted to move along the track and means carried by the carrier engageable upon the rails for tilting the carrier relatively to the track as it proceeds along the track, said carrier having a seat and a back, and a slide

arranged between the rails of the lower pair adapted to be engaged by and serving to support the back of the carrier when in its tilted position.

6. A device of the class described comprising an inclined slide, a pair of rails between which the slide is disposed, a second pair of rails located above the first pair of rails, a carrier having a seat and a back adapted to move over the slide, said carrier carrying a forward pair of rollers adapted to roll on the upper pair of rails, and a rear pair of rollers adapted to roll upon the lower pair of rails, said rollers and rails serving to guide the movement of the carrier as it proceeds over the slide.

7. A device of the class described comprising an inclined slide, a pair of rails between which the slide is disposed, a second pair of rails located above the first pair of rails, a carrier having a seat and a back adapted to move over the slide, said carrier carrying a forward pair of rollers adapted to roll on the upper pair of rails, and a rear pair of rollers adapted to roll upon the lower pair of rails, the distance between the first mentioned pair of rails and the second pair of rails varying along the track so as to cause the carrier to be tilted to place the back of the carrier in engagement with the slide.

8. A device of the class described comprising a pair of inclined spaced rails, a second pair of inclined spaced rails arranged above the first pair, a carrier, said carrier having a forward pair of rollers adapted to roll upon one of said pairs of rails, and a rear pair of rollers adapted to roll upon the other pair of rails, the distance between the pairs of rails varying along the track whereby the carrier may be tilted relatively to the rails as it proceeds over the rails.

9. A device of the class described comprising a pair of inclined spaced rails, a second pair of inclined spaced rails arranged above the first pair, a carrier, said carrier having a forward pair of rollers adapted to roll upon one of said pairs of rails, and a rear pair of rollers adapted to roll upon the other pair of rails, the distance between the pairs of rails varying along the track whereby the carrier may be tilted relatively to the rails as it proceeds over the rails, and means providing a starting support in the upper end of the rails upon which the carrier may be placed, and means for tilting the starting support so as to start the carrier down the inclined rails.

10. A device of the class described comprising an inclined slide, a pair of rails between which the slide is disposed, a second pair of rails located above the first pair of rails, a carrier having a seat and a back

adapted to move over the slide, said carrier carrying a forward pair of rollers adapted to roll on the upper pair of rails, and a rear pair of rollers adapted to roll upon the lower pair of rails, the distance between the first mentioned pair of rails and the second pair of rails varying along the track so as to cause the carrier to be tilted to place the back of the carrier in engagement with the slide, and means providing a starting support at the upper end of the slide and rails, and means for tilting the starting support so as to start the carrier down the slide and rails.

11. A device of the class described comprising an inclined slide, a pair of rails between which the slide is disposed, a second pair of rails located above the first pair of rails, a carrier having a seat and a back adapted to move over the slide, said carrier carrying a forward pair of rollers adapted to roll on the upper pair of rails, and a rear pair of rollers adapted to roll upon the lower pair of rails, the distance between the first mentioned pair of rails and the second pair of rails varying along the track so as to cause the carrier to be tilted to place the back of the carrier in engagement with the slide, and an elevator for carrying the carrier and passengers to the upper ends of the inclined rails.

In testimony whereof I have signed my name to this specification.

ELVAN B. CHRISTY.

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