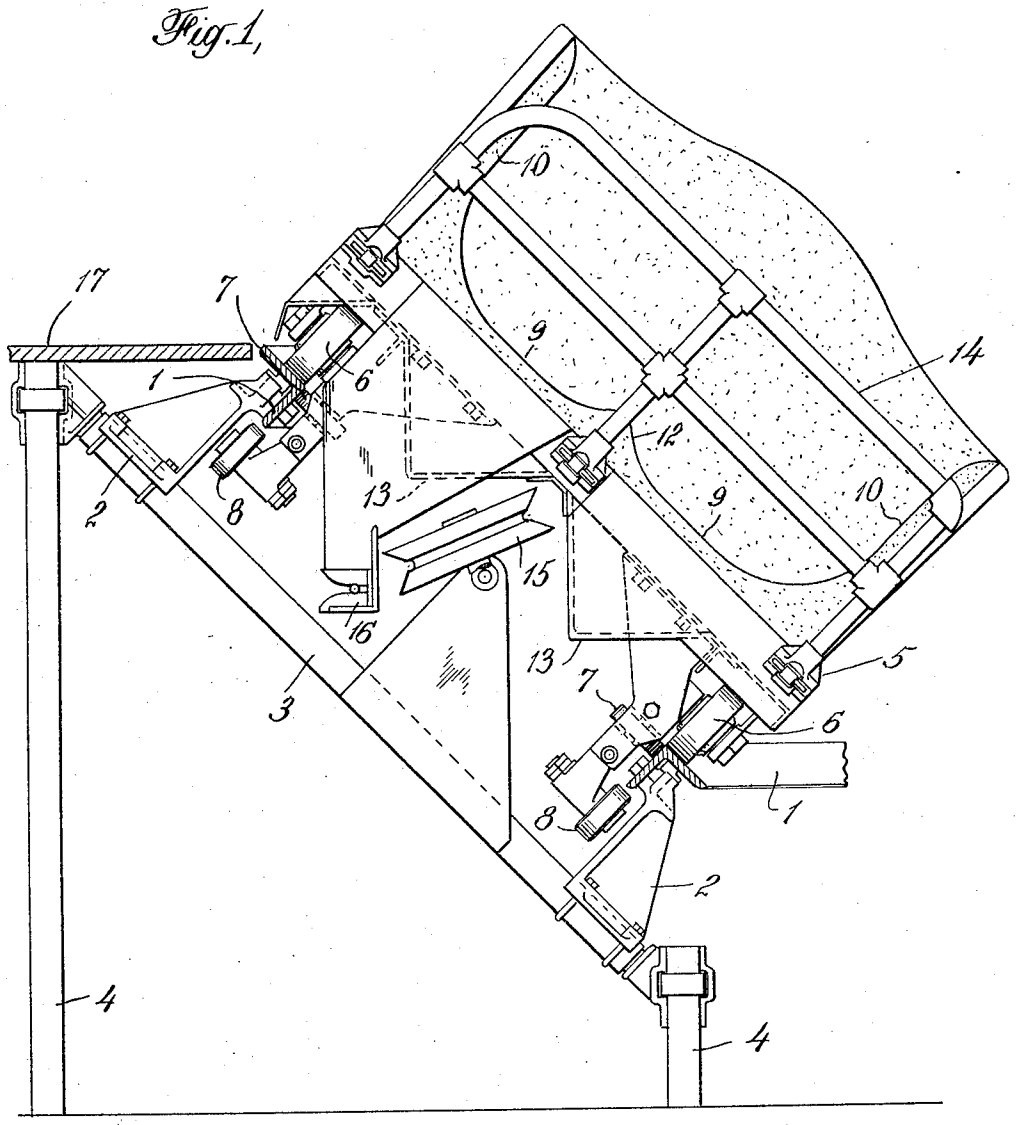
Dec. 31, 1929. H. F. MAYNES 1,741,245

AMUSEMENT RIDE

Filed Sept. 20, 1928 2 Sheets-Sheet 1

Fig. 1.



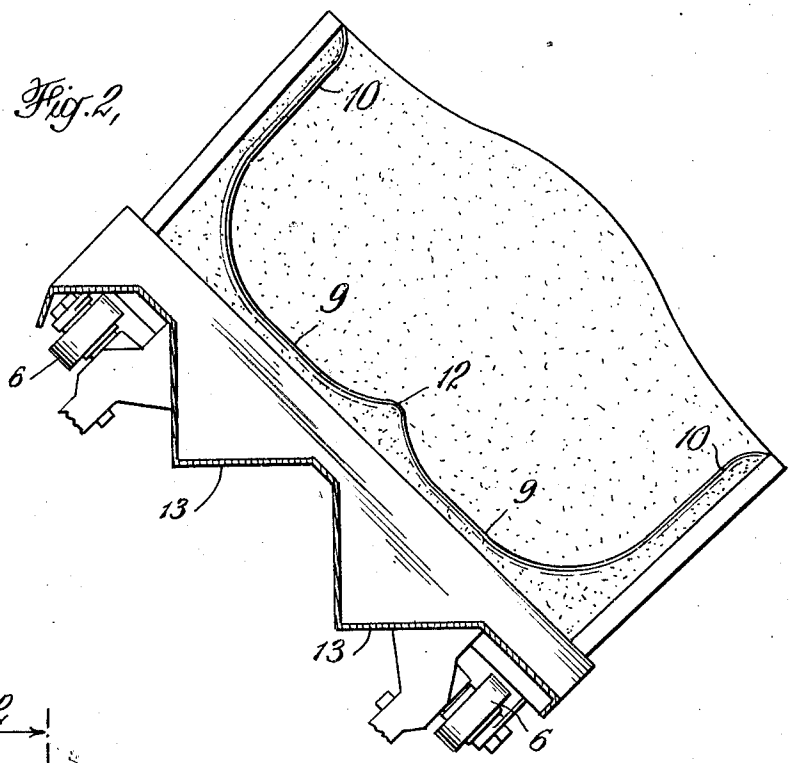
INVENTOR
Hyla F. Maynes
BY
Pennie, Davis, Marvin & Edmonds
his ATTORNEYS

Dec. 31, 1929. H. F. MAYNES 1,741,245

AMUSEMENT RIDE

Filed Sept. 20, 1928 2 Sheets-Sheet 2

Fig. 2.



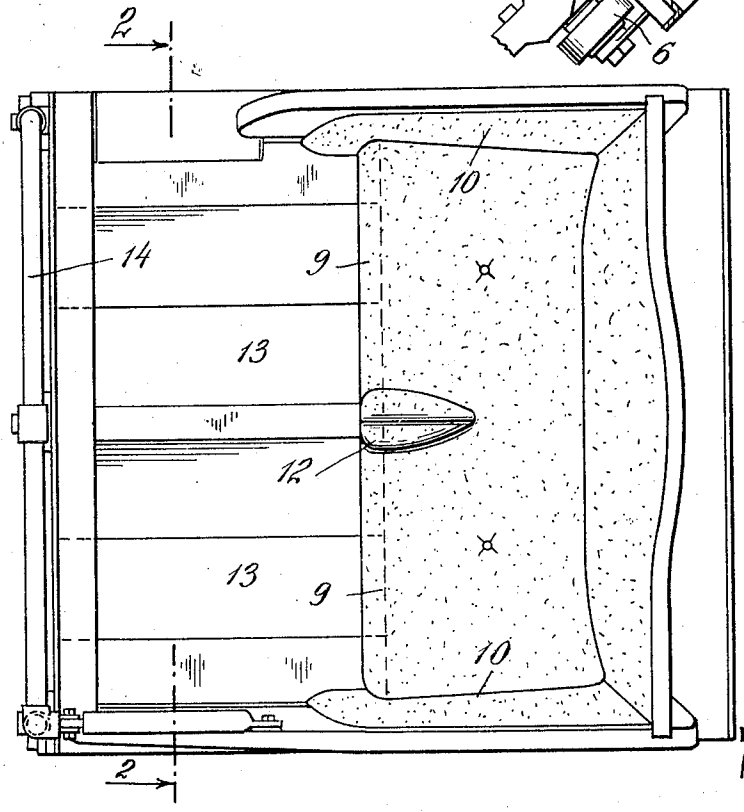


Fig. 3.

INVENTOR
Hyla F. Maynes
BY
Dennis, Davis, Mecum & Edmonds
ATTORNEYS

Patented Dec. 31, 1929 1,741,245

UNITED STATES PATENT OFFICE

HYLA F. MAYNES, OF NORTH TONAWANDA, NEW YORK, ASSIGNOR OF ONE-HALF TO EMMA C. MAYNES, OF NORTH TONAWANDA, NEW YORK

AMUSEMENT RIDE

Application filed September 20, 1928. Serial No. 307,247.

This invention relates to amusement rides and has for its object the provision of a novel construction of a car for such ride, and a novel track arrangement. Briefly, my invention comprises a curved track, banked at a very steep angle, particularly at the loading platform, the relation between the angle of inclination and the speed of the car being such that the passengers are seated in comfort normal to the plane of the seat when the car is running at full speed. This means that when the car is not running at full speed the passengers sit, or better, attempt to sit on a steeply inclined seat and are therefore thrown together unceremoniously at the bottom. The floor of the car just in front of the seat is made in the form of steps down which the passengers climb when entering the car. So much is easy. When they attempt to seat themselves, however, on the inclined and slippery seat they, of course, go into a huddle on the low side of the car. As soon as speed is attained, it is easy for the passengers to redistribute themselves in comfort and all proceeds smoothly until the car stops, when gravity again gets in its upsetting work.

In the accompanying drawings I have illustrated a preferred embodiment of my invention. In these drawings,

Figure 1 is a vertical transverse section through a circular track sharply inclined downward toward its center throughout its circumference, and showing, in elevation, a car mounted thereon;

Figure 2 is a transverse vertical section through a car taken along line 2—2 of Figure 3; and

Figure 3 is a plan of the car illustrated in the other two figures.

The track illustrated comprises a pair of rails 1, in the form of angle irons, mounted upon brackets 2, supported upon cross-bars 3, which are in turn supported upon vertical jack stands 4. As illustrated in Figure 1 the plane of the track is inclined sharply downward, the angle of inclination being toward the center of curvature of the ride. Although this angle may vary, I have obtained the most startling effects by making it 45°.

The car, designed to run over this track, comprises a body 5 supported upon two pairs of rollers 6, the axes of which are parallel to the track, and also upon two pairs of rollers 7, the axes of which are normal to the track. The rollers 6 bear upon the outer flanges of the track rails 1, and the rollers 7 upon the inner flanges. When the car is at rest, its weight is borne by the two rollers 6 and the lower roller 7, but when it is traveling at full speed, the upper roller 7 takes the side thrust. In order to positively hold the car on the track and prevent its upsetting, particularly during loading, I also provide two additional pairs of rollers 8, the axes of which are parallel to the axes of rollers 6, and which are mounted below the track rails 1. Movement of the car away from the rails is prevented by these rollers 8.

The car is provided with a seat 9 having a high back and side walls 10 which hold the passengers in safety even when the car is at rest. The middle of the seat adjacent its forward edge is provided with a saddle 12 which extends part way toward the back. The seat, although designed for two persons can thus be occupied by three persons comfortably. The floor of the car just in advance of the seat is constructed in the form of steps 13, as most clearly illustrated in Figure 2, and the front of the car is provided with the usual fender rail 14 which acts as a hand-rail or banister while the passengers are being seated.

The car just described preferably forms one of a train. This train may be run over the track by any desired motive power, the source of the motive power being immaterial in considering the present invention. I have illustrated, however, a cable driven ride, the cable being normally supported and guided by a plurality of grooved rollers 15 mounted on the track-supporting structure. Each car is provided with a cable clutch 16 by means of which the movement of the cable is transmitted to the cars. A method of operating such clutches is described and claimed in my

co-pending application, Serial No. 307,249 filed simultaneously herewith.

The ride operates as follows: The track-supporting structure is provided along its higher side with a loading platform 17, the level of which is substantially that of the top step of the series of steps 13. As illustrated in Figure 1 it is slightly below the top step. Passengers enter the car from this platform, descend the steps and seat themselves. Those sitting on the upper side of the seat immediately tend to slide downward and crowd those who have seated themselves on the lower side. The saddle 12 assists somewhat in arresting this downward movement, but not very efficiently. The result is that there is a general mix-up with its attendant fun. When the passengers are in the cars the ride is started, and as the cars pick up speed it becomes increasingly easier for the passengers to distribute themselves over the seats and maintain their positions comfortably. When full speed is attained, centrifugal force, acting upon the passengers so balances their weight that pressure which they exert upon the seats is substantially normal. This makes for extreme comfort and enables them to enjoy the speed of the ride to the full. As soon, however, as the ride is slowed down preparatory to stopping, the centrifugal force diminishes and the passengers again slump to the low side of the cars.

By means of the present invention I have provided a novel amusement device which combines the thrill of a fast ride with the fun induced by the tumbling about of the passengers as they enter the cars and leave them. When the train is operating at full speed the passengers remain seated with surprising ease and as the train slows up they are thrown together at the low side of the cars for a reason which is not quite apparent to them. All this makes for novelty and a general good time.

I am aware that rides having banked tracks are not new, but in all such rides the track is level at the loading platform. In my ride, on the contrary, the inclination is maintained at the loading platform.

I claim:

1. An amusement ride comprising the combination of a curved track inclined sharply downward toward its center of curvature at the point where the passengers enter, and a car on the track with its seat substantially parallel with the track.

2. An amusement ride comprising the combination of a circular track inclined sharply downward toward its center throughout its circumference, and a car on the track wtih its seat substantially parallel with the track.

3. An amusement ride comprising the combination of a curved track inclined sharply downward toward its center of curvature at the point where the passengers enter a car on the track, said car having its seat substantially parallel with the track, and means for running the car at such a speed that the centrifugal force acting on the passengers in the car as it passes around the curve balances the force of gravity so that the resultant force is normal to the seat.

4. An amusement ride comprising the combination of a loading platform, a curved track inclined sharply downward toward its center of curvature at the loading platform, a car on the track with its seat substantially parallel with the track, a relatively high side wall on the low side of the car for partly supporting the passengers when the car is at rest, and means for running the car at such a speed that the centrifugal force acting on the passengers in the car as it passes around the curve balances the force of gravity so that the resultant force is normal to the seat.

5. An amusement ride comprising the combination of a loading platform, a curved track inclined sharply downward toward its center of curvature at the loading platform, a car on the track with its seat substantially parallel with the track, a relatively high side wall on the low side of the car for partly supporting the passengers when the car is at rest, means for running the car at such a speed that the centrifugal force acting on the passengers in the car as it passes around the curve balances the force of gravity so that the resultant force is normal to the seat, and means preventing the car from over-turning when at rest.

6. An amusement ride comprising the combination of a loading platform, a curved track inclined sharply downward toward its center of curvature at the loading platform, a car on the track, a seat in the car substantially parallel with the track, a floor in the car adjacent the seat in the form of steps, and means for running the car at such a speed that the centrifugal force acting on the passengers in the car as it passes around the curve balances the force of gravity so that the resultant force is normal to the seat.

7. An amusement ride comprising the combination of a loading platform, a curved track inclined downward toward its center of curvature at the loading platform, at an angle of substantially 45°, a car on the track with its seat substantially parallel to the track, a relatively high side wall on the low side of the car for partly supporting the passengers when the car is at rest, and means for positively holding the car upon the track.

8. An amusement ride comprising the combination of a loading platform, a curved track inclined downward toward its center of curvature at the loading platform at an angle of substantially 45°, a car on the track, a seat in the car substantially parallel with the

track and a floor in the car adjacent the seat in the form of steps.

9. An amusement ride comprising a combination of a loading platform, a curved track inclined downward toward its center of curvature at the loading platform at an angle of substantially 45°, a car on the track, a seat in the car substantially parallel with the track, and a saddle in the middle of the seat.

10. An amusement ride comprising the combination of a loading platform, a curved track inclined sharply downward toward its center of curvature at the loading platform, a car on the track, a seat in the car substantially parallel with the track, a floor in the car adjacent the seat in the form of steps, and a fender rail across the front of the car acting as a hand-rail for the passengers as they enter and leave the car.

In testimony whereof I affix my signature.

HYLA F. MAYNES.