H. F. MAYNES.

AMUSEMENT APPARATUS.

APPLICATION FILED AUG. 10, 1920.

1,361,476. **Patented Dec. 7, 1920.**

Fig. 1.

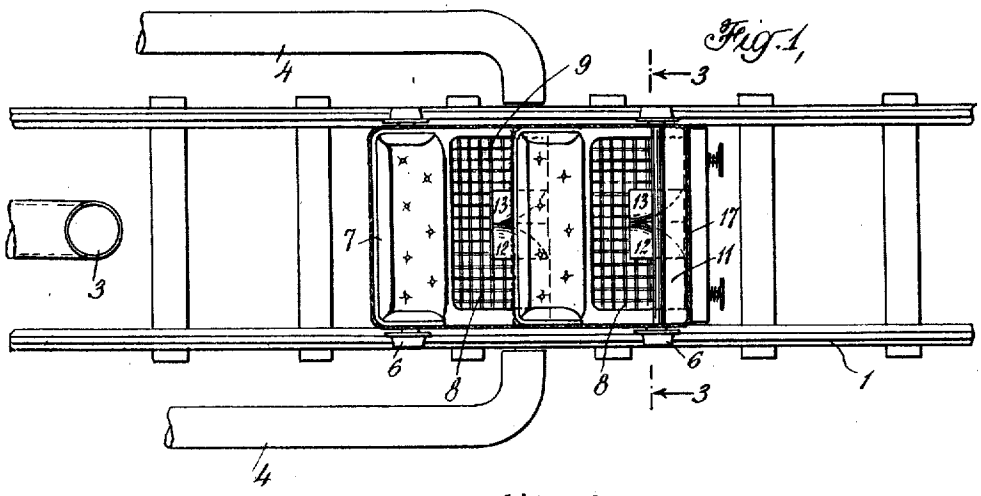


Fig. 2.

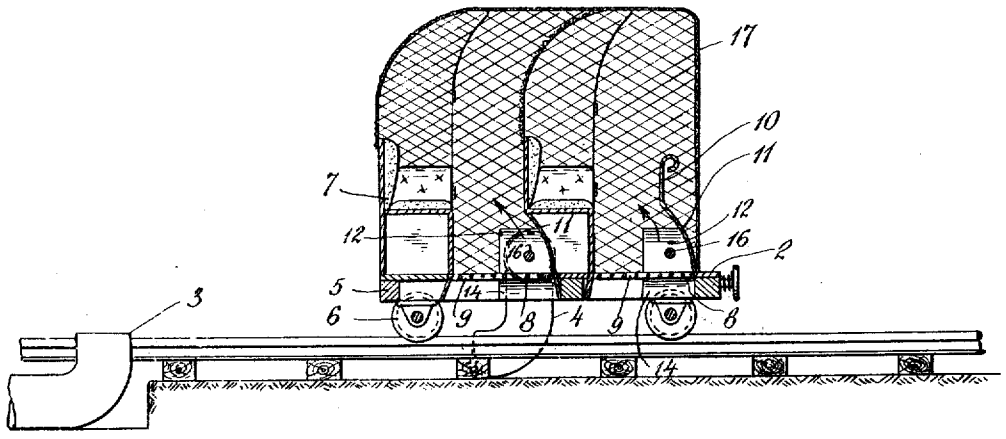
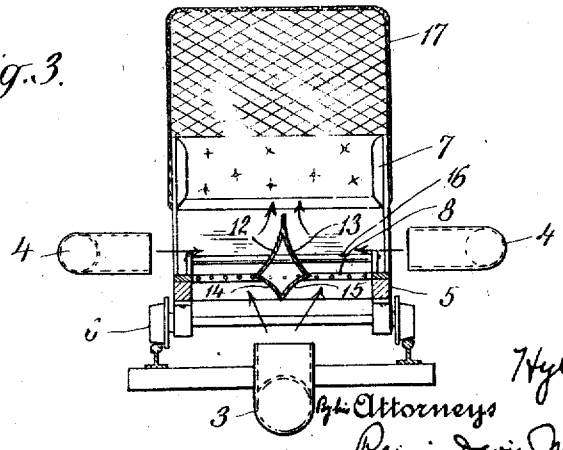


Fig. 3.



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UNITED STATES PATENT OFFICE.

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AMUSEMENT APPARATUS.

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To all whom it may concern:

Be it known that I, HYLA FREDERICK MAYNES, a citizen of the United States, residing at Gaines, in the county of Tioga, State of Pennsylvania, have invented certain new and useful Improvements in Amusement Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an amusement device, and more particularly to that class generally known as "roller-coasters."

There are various types of so-called roller-coasters, the simplest comprising a trackway in which there are a succession of steep inclines and declines, so that a car passing up and down these travels at very high rates of speed. In the more recent development of roller-coaster, the passengers are led through labyrinths, and past unexpected and unusual scenes, this type being usually known as the scenic railway. There are thus two elements which combine to make devices of this type a success, and these are the elements of speed and surprise, and that ride is most successful which can combine these two features in a pleasant and acceptable manner.

It is an object of the present invention to provide a novel and unusual element of surprise in the ordinary roller-coaster ride, and this is accomplished by the use of air blasts suddenly and unexpectedly applied.

It is a more specific object of this invention to provide means for applying these air blasts, and also to design a car adapted to receive and utilize them effectively.

In order that the invention may be more clearly understood reference is had to the accompanying drawings disclosing a preferred embodiment thereof; and in which,

Figure 1 is a plan view of a section of the ordinary roller-coaster trackway, showing the position of the blower pipes with relation to the track and a passing car,

Fig. 2 is a vertical, horizontal section through the trackway and car, likewise showing the position of the blower pipes; and

Fig. 3 is a transverse, vertical section through the car and trackway.

In the drawings 1 represents the trackway upon which a car 2 is adapted to run, this trackway being provided with the ordinary inclines and declines so common in roller-coasters, or provided with any other desired means whereby the car may be propelled. Situated at intervals along this trackway are blower pipes 3 and 4, the former being disposed beneath the trackway and delivering its volume of air upwardly, while the latter are placed along the sides of the trackway and blow their air inwardly, in a horizontal direction, and at a level just above that of the floor of car 2, for a purpose which will be later described. Air is supplied to these pipes by means of an ordinary fan blower, or in any other desired manner, it being necessary only that a strong and reliable blast of air be secured, and the specific form of blower forms no part of this invention.

The car 2 comprises, in common with other roller-coaster cars, a base or body 5, rollers or wheels 6 and seats 7. Unlike most cars, however, it is provided with a foraminous floor or bottom 8 immediately in front of the seats 7. This floor may be provided with a series of relatively small openings 9, such as shown, or with a plurality of transverse or horizontal slots, the essential requisite being that an uninterrupted flow of air is permitted upwardly through the bottom of the car. The dashboard 10 of the car, and the rear of the front seat are curved to form deflecting surfaces 11 tending to direct the air currents entering through the bottom of the car toward the passengers occupying the seats. In the middle of the floor of the car, before each seat and closely adjacent the deflecting surfaces 11 are other deflecting surfaces 12 and 13 whose function it is to deflect the horizontal currents of air entering the car from the side through blower pipes 4 in an upward direction. Immediately below these deflecting surfaces 12 and 13 are other deflecting surfaces 14 and 15 whose function it is to deflect the upwardly directed currents of air from the blower pipe 3, around surfaces 12 and 13, and thus into the bottom of the car. The car is provided with foot rests 16 and the whole car is inclosed by means of a wire mesh cage 17.

The operation of the device is as follows: The car 2 moves along the trackway as is customary, and suddenly rides over the blower pipe 3, from which there is being constantly blown a strong current of air. This air passes through openings in the floor of the car, strikes against the transverse de-

flecting surfaces 11 and shoots upwardly into the faces of the passengers. Taken thus unawares, hats are blown off and much merriment results. The horizontally moving currents of air which enter the car from blower pipes 4 are deflected upwardly by means of deflecting surfaces 12 and 13, and rearwardly by means of deflecting surfaces 11, and thus ultimately act in a manner quite similar to those currents issuing from pipe 3. Either or both of these devices of blower pipe may be employed, the essential idea being that at varied and unexpected intervals along the ride, strong blasts of air are directed upwardly from the bottom of the car. The function of the cage 17 is to prevent the loss of hats which are likely to be blown off by the air currents which take the passengers completely by surprise.

By means of this invention a simple, effective element of surprise is added to the speed thrill of the ordinary roller-coaster, and it is the judicious combination of these two which makes such rides enjoyable, and this is the criterion of success in this art.

Although one preferred embodiment of the invention has been shown and described, it is clear that other forms of car could be devised, and other arrangements of blower pipes effected whereby a strong current of air could be deflected upwardly through the bottom of such a car. It is to be distinctly understood that the invention is not limited to these details of construction, but includes broadly all such modifications as would ordinarily suggest themselves to those skilled in this art.

Although blasts of air will ordinarily be directed upwardly through the car at intervals along the trackway, the invention in its broadest aspect embraces the use of an air blast at one point only.

I claim:

1. An amusement apparatus, comprising a trackway, a car adapted to run upon the trackway, and means situated on the trackway for causing currents of air to rise in said car.

2. An amusement apparatus, comprising a trackway, a car adapted to run upon the trackway, and means situated at intervals along the trackway for causing currents of air to rise in said car.

3. An amusement apparatus, comprising a trackway, a car having a foraminous bottom adapted to run upon the trackway, and means situated on the trackway for blowing a current of air upwardly through the foraminous bottom of the car.

4. An amusement apparatus, comprising a trackway, a car having a foraminous bottom adapted to run upon the trackway, and blower pipes situated at intervals along the trackway to blow currents of air upwardly through the foraminous bottom of the passing car.

5. An amusement apparatus, comprising a trackway, a car having a foraminous bottom adapted to run upon the trackway, blower pipes situated in the trackway beneath the normal path of the car and at the side of the trackway just above the floor level of the car, and deflecting plates within the bottom of the car, the arrangement of the foregoing parts being such that as the car passes the blower pipes, currents of air are blown upwardly through the car.

6. An amusement apparatus, comprising a trackway, a car having a foraminous bottom adapted to run upon the trackway, blower pipes situated at intervals along the trackway to blow currents of air upwardly through the foraminous bottom of the passing car, and inclosed sides and top on said car.

7. An amusement apparatus car having a foraminous or perforated bottom, and deflecting plates near the bottom of the car designed to deflect currents of air upwardly through the car.

In testimony whereof I affix my signature.

HYLA FREDERICK MAYNES.