April 28, 1925.

1,535,237

H. F. MAYNES

AMUSEMENT APPARATUS

Filed Feb. 12, 1925

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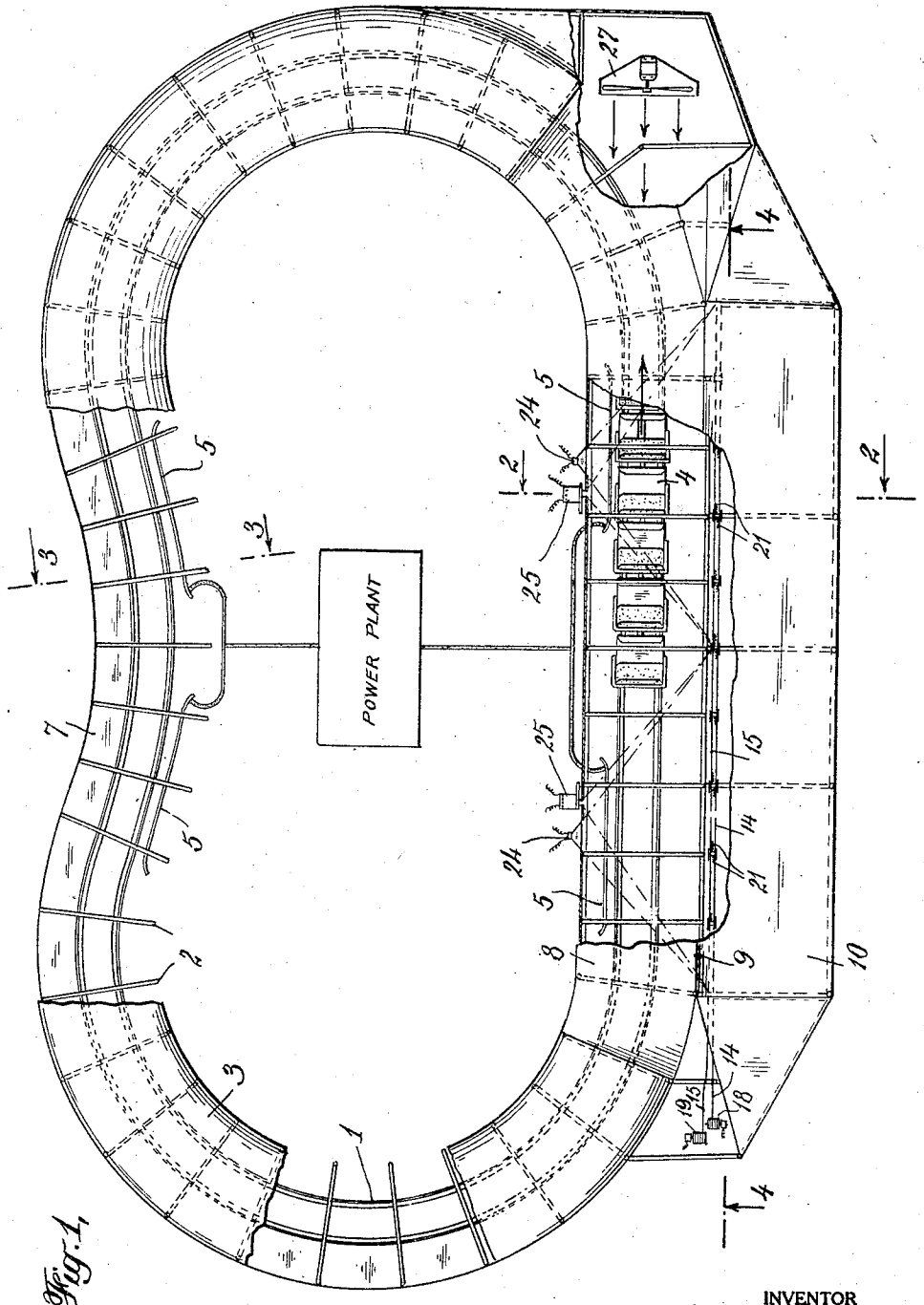

Fig. 1.

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Fig. 2,

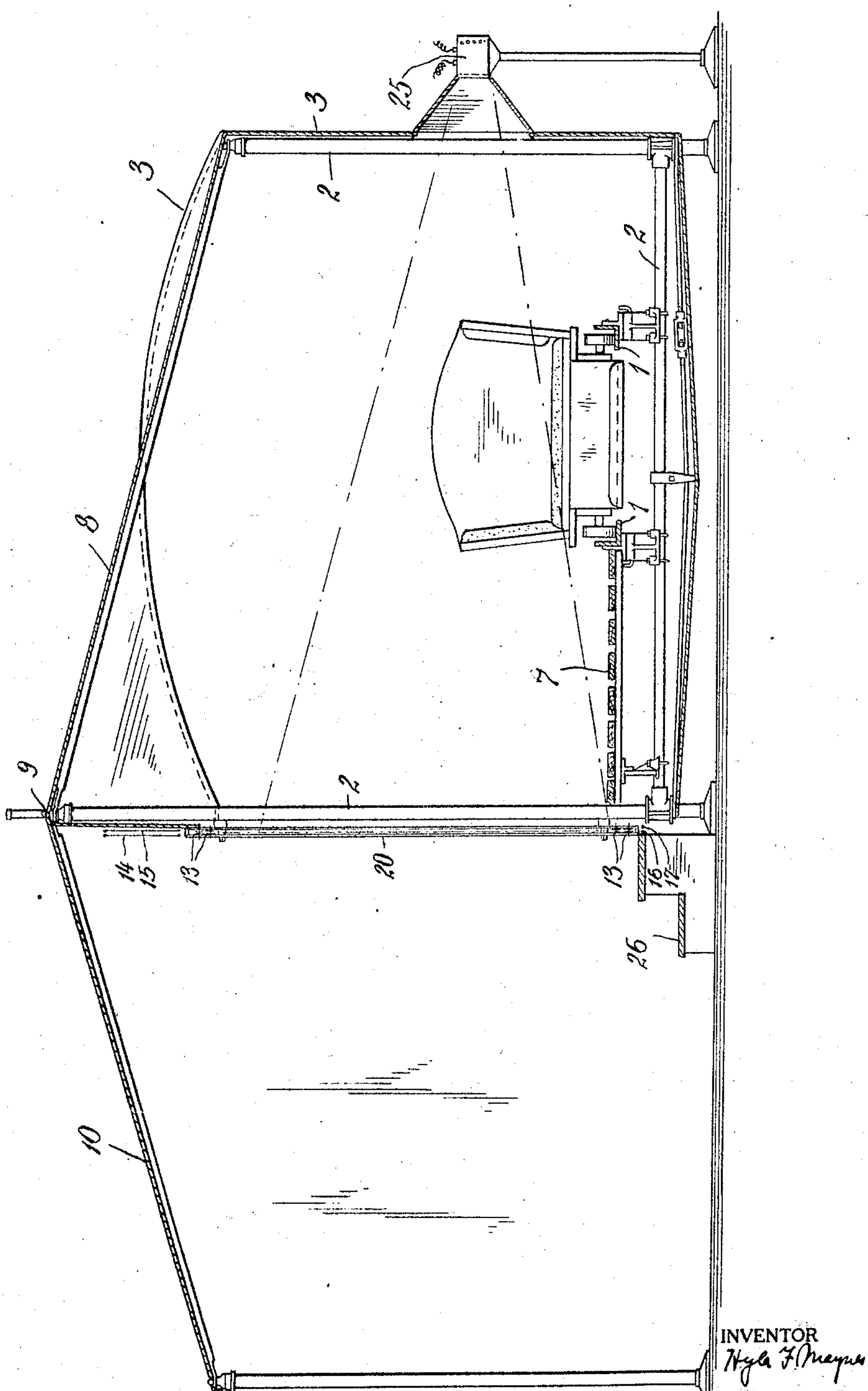

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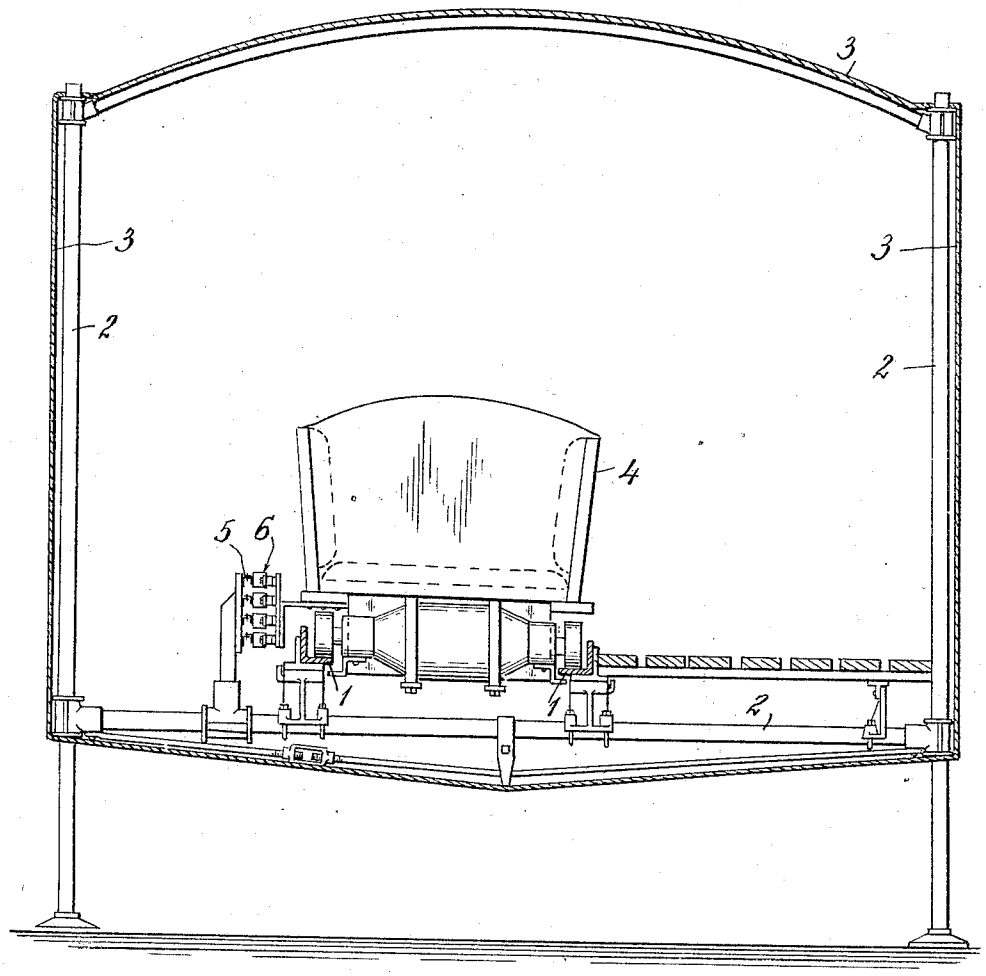
Fig. 3,



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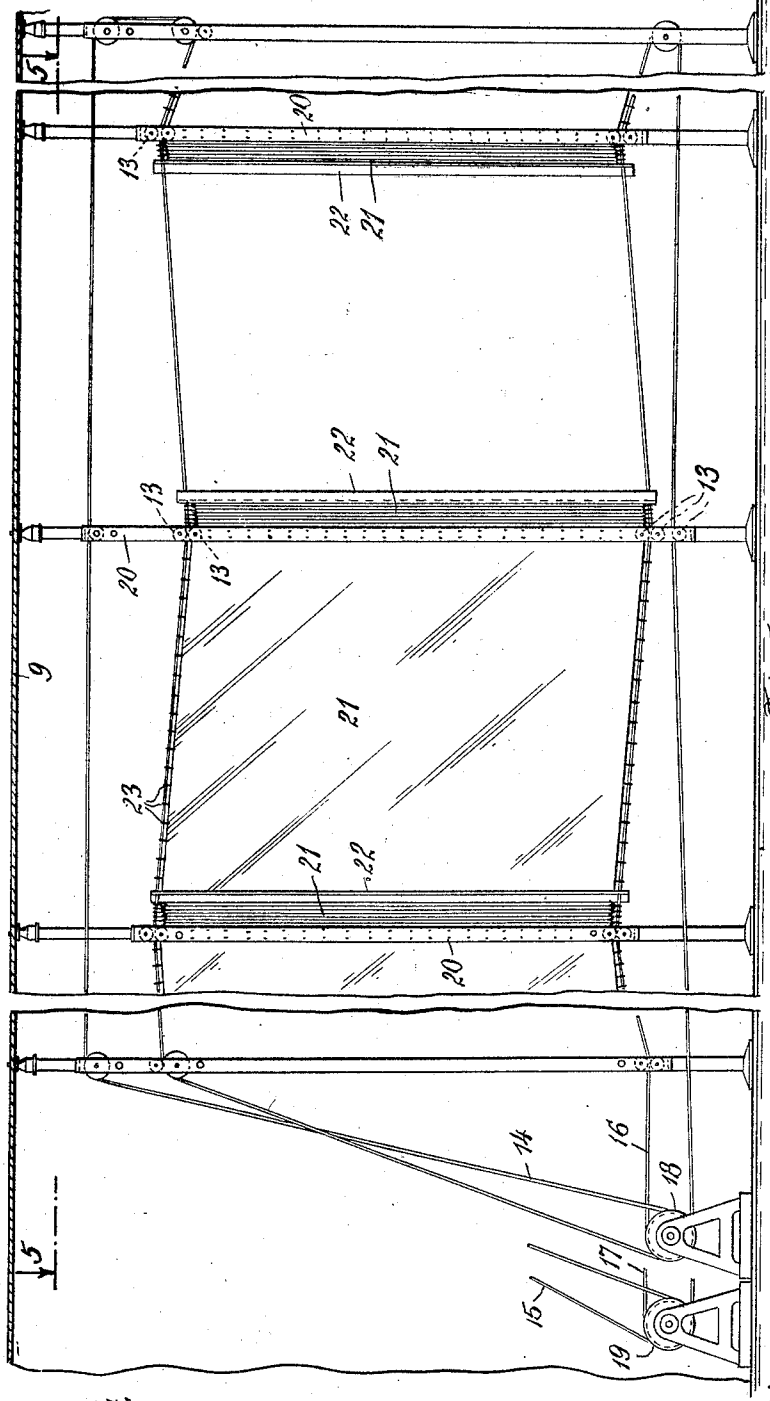

Fig. 4.

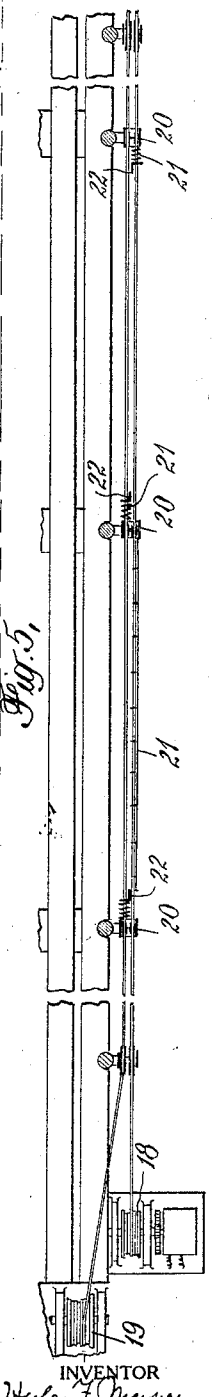

Fig. 5.

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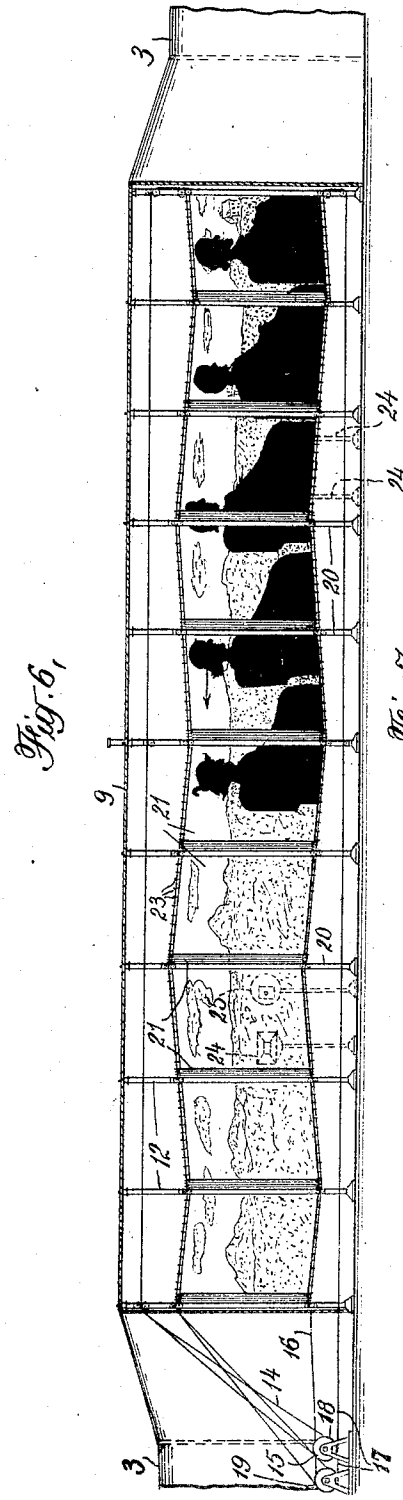

Fig. 6.

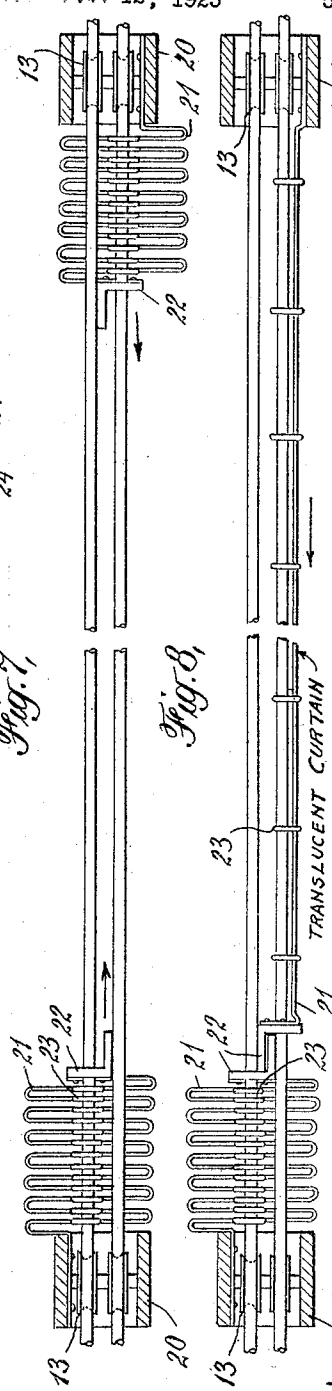

Fig. 7.

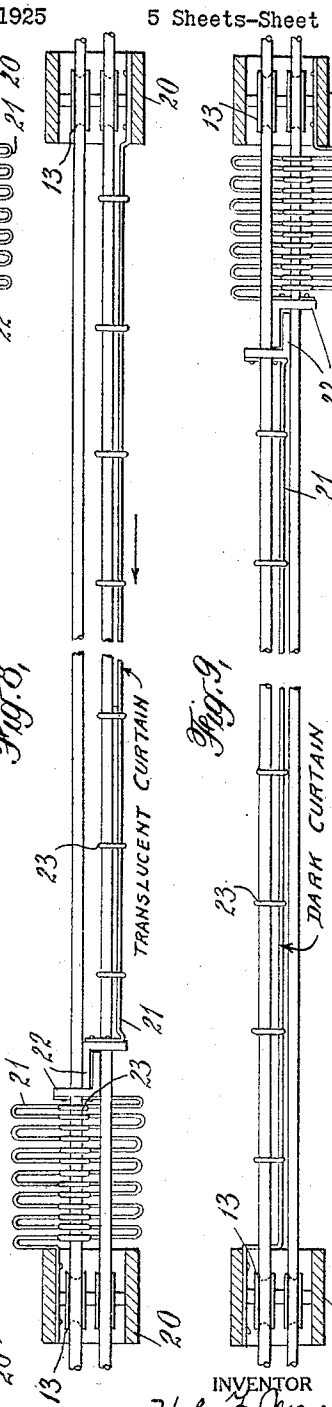

Fig. 8.

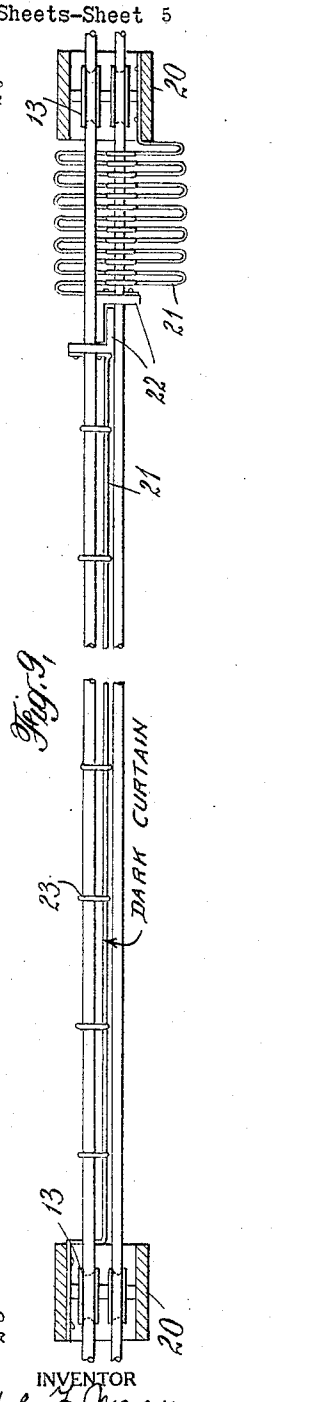

Fig. 9.

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UNITED STATES PATENT OFFICE.

HYLA FREDERICK MAYNES, OF NORTH TONAWANDA, NEW YORK, ASSIGNOR TO MAYNES CORPORATION, OF DOVER, DELAWARE, A CORPORATION OF DELAWARE.

AMUSEMENT APPARATUS.

Application filed February 12, 1925. Serial No. 8,694.

To all whom it may concern:

Be it known that I, HYLA F. MAYNES, a citizen of the United States, residing at North Tonawanda, in the county of Niagara, State of New York, 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 use the same.

This invention relates to an amusement ride, and has for its object the making of an improved ride and the provision of novel means for attracting attention to the ride.

The ride of the present invention comprises a car or train of cars which travel around an enclosed endless trackway, preferably tortuous and undulating. The portion of the outer side wall of the enclosing tunnel which extends along the midway or public thoroughfare, or wherever it is that the crowds pass, is provided with a translucent screen or curtain. A strong projecting light is placed at the other side of the tunnel at this point and is directed against the cars as they pass, thus casting a silhouette or shadowgraph of the cars and their occupants upon the translucent outer wall of the tunnel. This moving shadowgraph is clearly visible to those passing in the midway and they are attracted to the ride.

Instead of projecting merely a shadowgraph of the cars upon a white background, I may also project a scenic panorama upon the translucent outer wall of the tunnel, the projecting light of the panorama in this case casting a silhouette of the cars upon the screen. I preferably move this panorama in a direction opposite to that in which the cars are moving, thus making it appear that the cars are rushing through the depicted scene at a terrific rate of speed.

I preferably provide a series of collapsible translucent curtains which may be opened to permit passengers to enter and leave the cars. I also provide an alternate series of opaque curtains so that at times the cars can be run within a darkened tunnel. The invention also contemplates novel means for opening and closing these curtains.

In the accompanying drawings I have illustrated a preferred embodiment of the present invention. In these drawings, Figure 1 is a plan view of the ride of the present invention with parts broken away to show the relation of the train to the movable curtains and projecting means. Figure 2 is a transverse vertical section on an enlarged scale taken along line 2—2 of Figure 1. Figure 3 is a transverse vertical section on an enlarged scale taken along line 3—3 of Figure 1. Figure 4 is an enlarged vertical section taken along line 4—4 of Figure 1, and showing in detail the curtains and their supporting and operating mechanism. Figure 5 is a horizontal section taken along line 5—5 of Figure 4. In both Figures 4 and 5, one section of the curtains is shown with one curtain collapsed and the other extended and an adjacent section with both curtains collapsed. This condition could never occur in actual practice, but is illustrated merely in order to show two possible positions of the curtains in one view. Figure 6 is a view similar to Figure 4, but on a reduced scale showing the opaque curtains collapsed and the translucent curtains closed with a silhouette of a train and panorama projected on them. Figure 7 is an enlarged detail showing both the opaque and translucent curtains in open or collapsed position. Figure 8 is a similar detail showing the opaque curtain collapsed and the translucent curtain in extended or closed position. Figure 9 is a similar detail showing the opaque curtain closed and the translucent curtain open or collapsed.

The ride illustrated in these drawings comprises a tortuous undulating trackway 1 supported upon a frame 2 and enclosed, for the greater part of its length, by means of a canopy or cover 3, likewise supported upon the frame 2. A car or train of cars 4 is designed to run upon this trackway and for the greater part of the ride travels through the enclosed tunnel formed by the side walls and roof of the canopy or cover 3. This train is preferably electrically driven and receives its power from a power plant situated in the middle of the ride through collector rails 5 which make contact with brushes 6 carried by certain cars of the train. The specific means for driving the train forms no part of the present invention and will not be described in detail here. A loading platform 7 runs adjacent the trackway around the entire ride and is likewise supported upon the frame 2.

That section of the trackway adjacent the public thoroughfare, or, in any event, closest that point where the largest number of persons are likely to pass or congregate, is straight in plan view as is shown most clearly in Figure 1, although undulating in a vertical plane as shown most clearly in Figure 6. For this section the arched roof of the tunnel is supplanted by a straight inclined roof 8 which continues to a peak 9 where it meets a similarly inclined roof 10 of an awning. In accordance with the present invention I also supplant the continuous outer wall of the tunnel of this section with a series of collapsible curtains which I shall now describe.

Frame 2 is provided along the outer side of the wall of the tunnel of this section with eleven uprights 12 which support the roof 10 of the awning and the roof 8 and also support the collapsible curtains of the present invention. To each of these uprights is affixed a pair of spaced parallel strips 20 which support a series of upper and lower pulleys 13 which carry two upper endless cables 14 and 15 and two lower endless cables 16 and 17 respectively. These cables pass about the several pulleys and make several turns about electrically driven hoist drums 18 and 19; upper cable 14 and lower cable 16 being operated by drum 18 and upper cable 15 and lower cable 17 by drum 19. The hoist drums are each controlled through an electrical push button which rotates in one direction when the button is pushed, the drum automatically stopping, after a predetermined number of revolutions another button is then pushed to drive it in the opposite direction. Hoist drums of this nature are well-known and in themselves form no part of the present invention. To each of the pairs of parallel strips 20 of the nine inner uprights 12 two collapsible curtains 21 are attached, one of these being made of some translucent material, such as treated bleached muslin, and the other being made of opaque material, such as painted canvas, and preferably of dark color. The strips 20 of the two outer uprights 12 are provided with one of these curtains, as will be clear from an inspection of Figure 6. The free, or movable end of each curtain is attached to a vertical bar 22, which bar preferably is in the form of an angle iron and is provided at either end with an aperture through which one of the endless cables passes and is attached. Each curtain is also provided with a series of rings 23 adapted to slide upon the endless cables and hold the curtain in position.

As illustrated in Figures 4 and 5, the hoist drum 18 controls the movement of the translucent curtains. Rotation of this drum in one direction operates through endless cables 14 and 16 to move the bars 22 attached to the translucent curtains, to the left, thus closing the side wall of the tunnel with a continuous translucent wall. Rotation of this drum in the opposite direction moves these bars to the right and collapses the translucent curtains, thus opening the side wall of the tunnel, provided the opaque curtain is collapsed. The drum 19 similarly controls the opening and closing of the opaque curtain. Figure 7 illustrates the condition between two of the uprights with both curtains collapsed and the side wall of tunnel open. Figure 8 shows the translucent curtain closed and Figure 9 the opaque curtain closed. From a study of these three figures, it will be noted that the bars 22 move in substantially the same vertical plane and cannot pass each other. For this reason it is impossible ever completely to close both the translucent and the opaque curtains at the same time, athough it is possible to open them both at the same time. If, when the translucent curtains are closed, as shown in Figure 8, the drum 19 is operated to close the opaque curtain, the translucent curtain is automatically collapsed through the movement of both bars 22 to the right.

When the translucent curtains are all closed, I project a shadowgraph or silhouette of the train and its occupants upon the curtains by means of a pair of strong lights 24, such as Linnebach lights, situated along the inner side of the tunnel. In order to project a panorama on the curtain, I have provided a pair of projecting lanterns 25 situated adjacent the Linnebach lights. The panorama and shadowgraphs projected upon the translucent curtains are visible not only to the occupants of the train, but are equally visible to the passers-by. These shadowgraphs and panorama are most effective at night, but even during the daytime are visible to those outside the tunnel by virtue of the shading action of the awning which projects beyond and in front of the curtain.

The ride is operated as follows: Both sets of curtains are collapsed to permit ready access to the train within the tunnel, passengers entering over a stairway 26 and across loading platform 7. When the passengers are seated, the train is started and the dark curtains closed by rotation of drum 19. The dark curtains being closed, the train is run within a completely enclosed tunnel which tends to produce an illusion of great speed. After a few turns in this darkened tunnel the operator causes drum 18 to rotate, thus suddenly extending the translucent curtains and simultaneously collapsing the dark curtains. The outer side wall of the tunnel or the section adjacent the entrance is thereby quickly transformed from a dark opaque wall to a translucent wall. Thereupon, the

Linnebach lights or the projecting lanterns are flashed on, the former throwing a silhouette of the cars and passengers on the translucent curtain, and the latter projecting a moving panorama and a silhouette thereon. These shadowgraphs and panorama are visible first of all to the occupants of the train, and then are visible to those on the outside who see dark figures moving rapidly through the panoramic scene. This panorama is preferably made to move in a direction opposite to that in which the car moves, thus making it appear that the cars are travelling at a much greater speed than they actually are. In order to add excitement and interest, I prefer to install a blower or fan 27 which directs a sudden blast of air against the passengers in the train and causes them to clutch wildly for their hats and otherwise deport themselves in strange ways. This discomfiture is not only apparent to the passengers themselves, but in silhouette can be observed by those on the outside, all of which arouses curiosity and interest and a desire on the part of the passer-by to take a journey on this strange conveyance himself.

I claim:

1. In an amusement ride, the combination of a passenger-carrying car or train, a translucent curtain adjacent the path of travel of the car or train, and means for projecting a shadowgraph of the car or train upon the translucent curtain.

2. In an amusement ride, the combination of a passenger-carrying car or train, a translucent curtain between the path of travel of the car or train and a public thoroughfare, and means for projecting a shadowgraph of the car or train upon the translucent curtain visible to the outside public.

3. In an amusement ride, the combination of a passenger-carrying car or train, a translucent curtain adjacent the path of travel of the car or train, and means for projecting upon the translucent curtain a shadowgraph of the car or train and a panorama.

4. In an amusement ride, the combination of a passenger-carrying car or train, a translucent curtain adjacent the path of travel of the car or train, means for projecting a shadowgraph of the car or train upon the translucent curtain and additional means for projecting a panorama upon the translucent curtain.

5. In an amusement ride, the combination of a passenger-carrying car or train, a translucent curtain adjacent the path of travel of the car or train, means for moving the curtain to permit access to the car or train, and means for projecting a shadowgraph of the car or train upon the translucent curtain when closed.

6. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, a translucent outer side-wall section in the tunnel adjacent a public thoroughfare, and means for projecting a shadowgraph of the car or train upon the translucent side-wall section, visible to those on the outside.

7. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, a translucent outer side-wall section in the tunnel comprising a plurality of movable translucent curtains, means for simultaneously moving said curtains to permit access to the car or train, and means for projecting a shadowgraph of the car or train upon said curtains when closed.

8. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, an outer side-wall section of the tunnel provided with a movable translucent curtain and a movable opaque curtain, and means for moving one of said curtains to complete the tunnel while the other remains out of the way.

9. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, an outer side-wall section of the tunnel provided with a movable translucent curtain and a movable opaque curtain, and means for closing one of said curtains while opening the other.

10. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, an outer side-wall section of the tunnel provided with a movable translucent curtain and a movable opaque curtain, and means for opening both curtains to permit access to the car or train.

11. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, an outer side-wall section of the tunnel provided with a plurality of collapsible translucent curtains, a plurality of collapsible opaque curtains and means for collapsing one set of curtains while extending the other.

12. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, an outer side-wall section of the tunnel provided with a plurality of collapsible translucent curtains, a plurality of collapsible opaque curtains and means for collapsing both sets of curtains simultaneously.

13. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, a plurality of horizontally movable, collapsible translucent curtains forming, when closed, a side wall of the tunnel, an endless cable connected to one side of each of said

curtains, uprights to which the other sides are attached and means for moving the cable to simultaneously extend all of said curtains to close the tunnel, and simultaneously collapse them all to open the tunnel and permit access to the car or train.

14. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, a plurality of horizontally movable, collapsible, translucent curtains, a plurality of horizontally movable, collapsible, opaque curtains, each set forming, when closed, a side-wall of the tunnel, uprights, one side of a translucent curtain and one side of an opaque curtain attached to each upright, a movable bar attached to the other side of each curtain, and lying in the same vertical plane, means for simultaneously moving all of the bars attached to one set of curtains to close that set, the bars on the closing set forcing the bars on the other set ahead of them to collapse that set.

15. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, an undulating trackway upon which the car or train runs, a plurality of collapsible curtains forming, when closed, a side-wall of the tunnel each curtain being substantially parallel with the adjacent section of the undulating trackway, and means for opening and closing said curtains.

16. In an amusement ride, the combination of a passenger-carrying car or train, a tunnel in which the car or train runs, a translucent outer side-wall section in the tunnel, a source of light on the other side of the tunnel for projecting a shadowgraph of the moving car or train on the translucent curtain, and an awning for shielding the translucent curtain from other lights.

In testimony whereof I affix my signature.

HYLA FREDERICK MAYNES.