No. 778,325. PATENTED DEC. 27, 1904.

C. B. McKAY.

AMUSEMENT DEVICE.

APPLICATION FILED APR. 4, 1904.

4 SHEETS—SHEET 1.

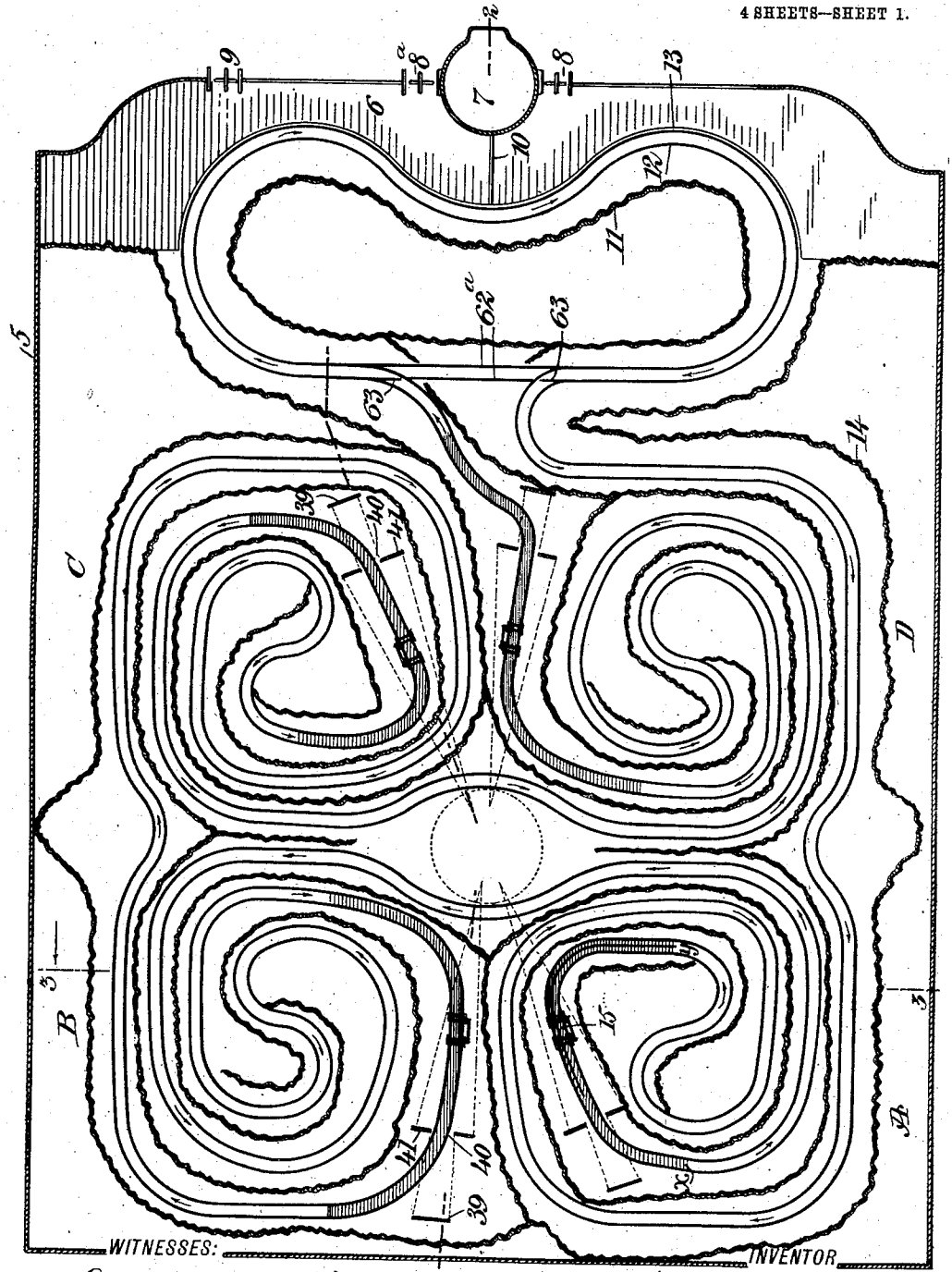

Fig. 1.

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4 SHEETS—SHEET 2.

Fig. 2.

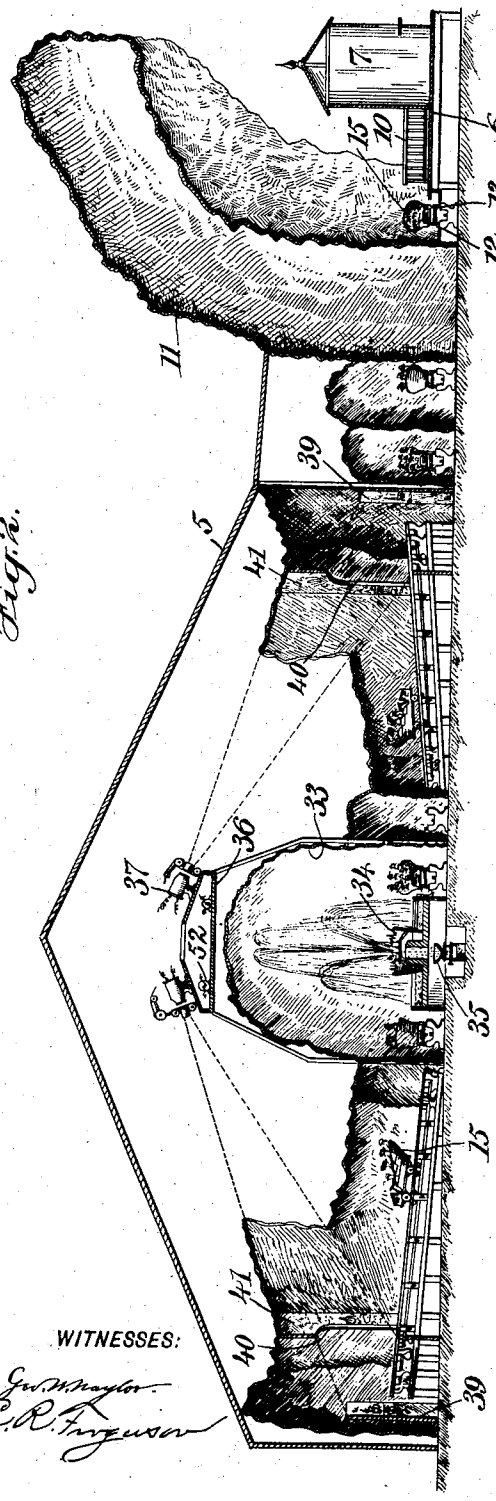
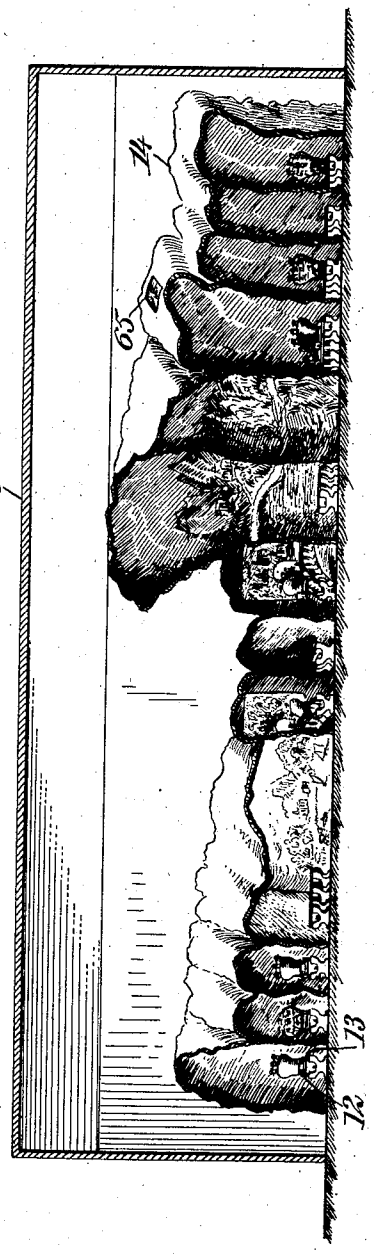


Fig. 3.



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4 SHEETS—SHEET 3.

Fig. 1.

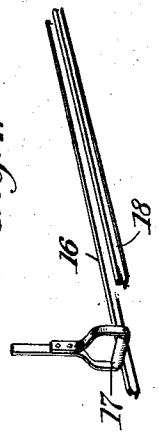
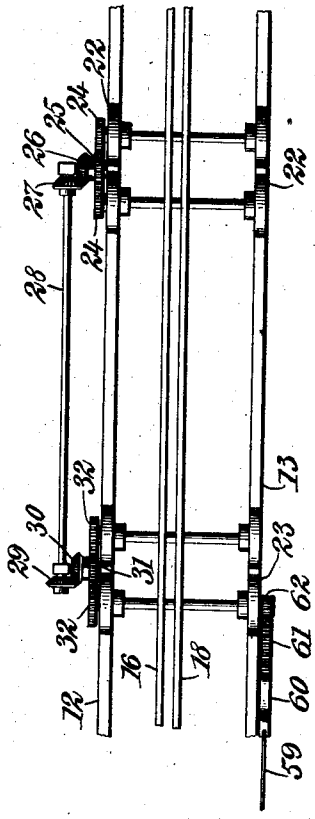
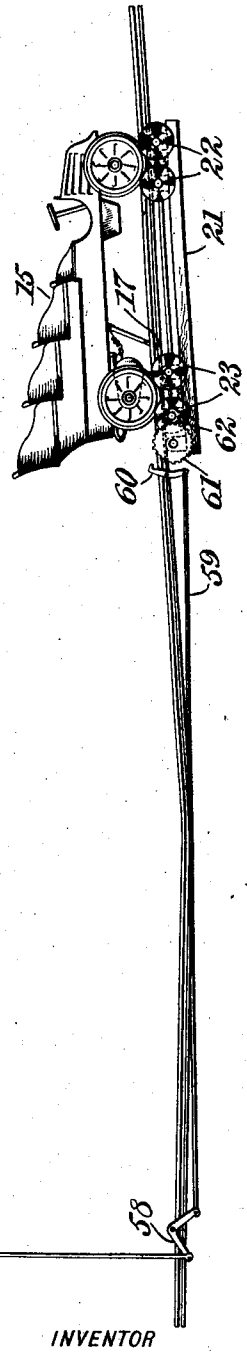


Fig. 5.





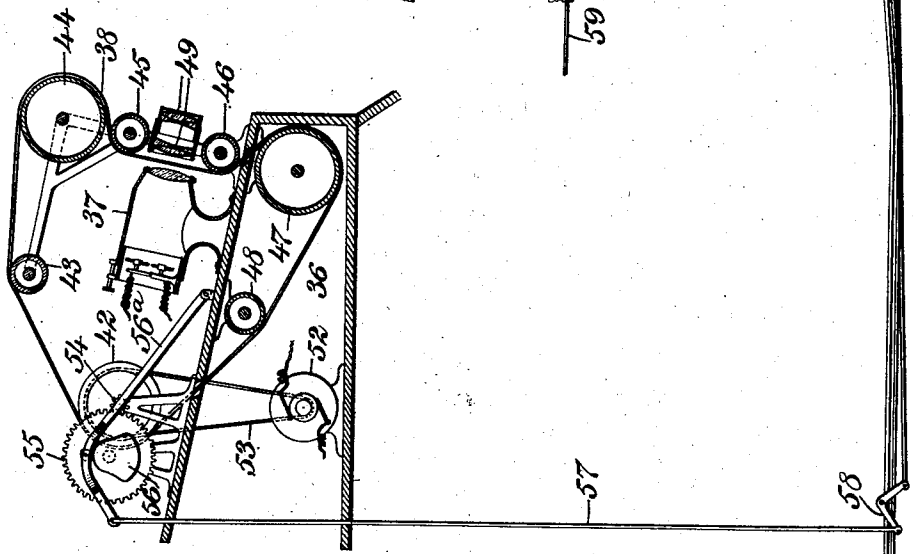


Fig. 4.

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4 SHEETS—SHEET 4.

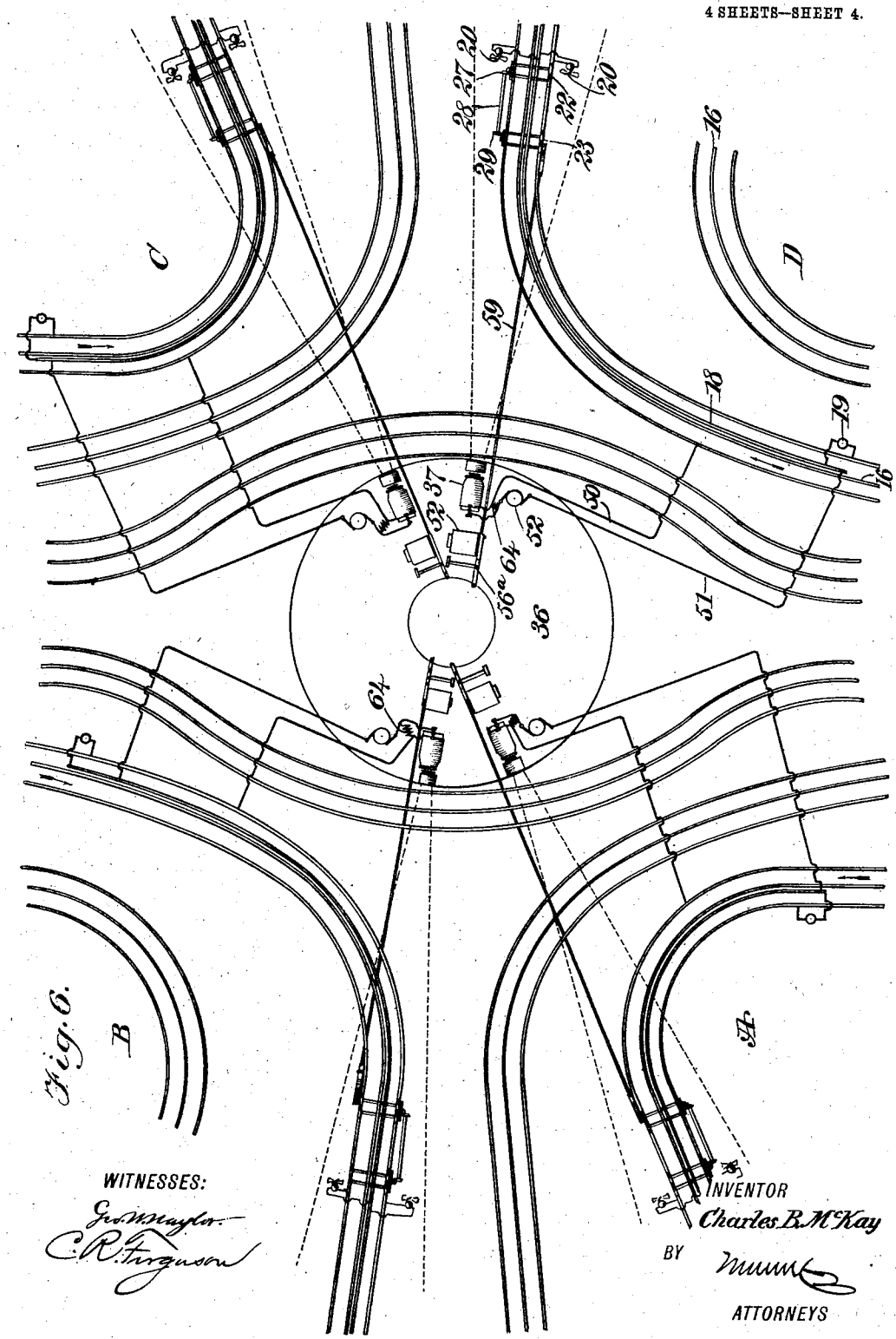

Fig. 6.

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No. 778,325. Patented December 27, 1904.

UNITED STATES PATENT OFFICE.

CHARLES B. McKAY, OF NEW YORK, N. Y.

AMUSEMENT DEVICE.

SPECIFICATION forming part of Letters Patent No. 778,325, dated December 27, 1904.

Application filed April 4, 1904. Serial No. 201,444.

To all whom it may concern:

Be it known that I, CHARLES B. McKAY, a citizen of the United States, and a resident of the city of New York, borough of the Bronx, in the county and State of New York, have invented a new and Improved Amusement Device, of which the following is a full, clear, and exact description.

This invention relates to improvements in amusement devices, the object being to provide a device of the character in which passenger-carrying cars are caused to travel a circuitous and undulating track extending through tunnel-like formations, certain parts of which are dark and in which various scenic effects are produced.

Other objects of the invention will appear in the general description.

I will describe an amusement device embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view, partly in section, of an amusement device embodying my invention. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is a section on the line 3 3 of Fig. 1. Fig. 4 is a sectional detail illustrating one of a number of picture-projecting devices employed and the manner of controlling the same. Fig. 5 is a plan of a portion of the controlling mechanism. Fig. 6 is a diagrammatic view, and Fig. 7 is a detail showing an electric-circuit closer employed.

Referring to the drawings, 5 designates a building having an entrance-platform 6 at one end, in which a ticket-office 7 is arranged, and the entrance is provided with an inlet 8 and outlets 8^a and 9. Between the inlet 8 and the outlet 8^a is a partition 10, thus providing one side of the platform as the entrance to the cars, to be hereinafter described, and the other portion of the platform as the discharge part. At the inner side of the platform 6 is a structure 11, made to represent a mountain or a plurality of mountains, and extending around this structure 11 is a track-loop consisting of rails 12 13, and these rails continue through various sections A, B, C, and D in a circuitous line. The track of the several sections passes through a tunnel 14, which on the outer side in certain places will represent mountains of various heights, and the inner side walls will have painted thereon various scenic effects. For instance, in the sections B and C a mountainous country may be illustrated and pastoral or village scenes in the sections A D. It may be here stated, however, that I do not confine my invention to any particular number of sections.

In each section the tunnel has a darkened portion, as indicated from x to y, in which a passenger-carrying car 15 is designed to remain stationary for a short period of time, but yet give the illusion to passengers of movement. The car is propelled electrically by a current taken from a third or central rail 16, engaged by a shoe 17, having connection with the motor of the car, and the current passes back through the main or outer rails.

As indicated in Fig. 2, the track is arranged at an incline in the darkened sections, and in these sections for a portion of their length is a fourth rail 18, which at the entrance end of the dark section is in electrical connection with a signal-lamp 19, said lamp being also in connection with one of the outer rails, and at the opposite end the fourth rail and the outer rails are in electrical connection with wind-producing devices, such as fans 20. This will produce the effect on the passengers of entering a high wind about the time of leaving the dark section. Also arranged in each dark section is what may be termed a "treadmill," consisting of a platform 21, having at each side pairs of rollers 22 23, with which the front and rear wheels of the car are designed to engage. Opposite rollers are connected by shafts, and the shafts of the front pair have attached to them gear-wheels 24, engaging with a bevel-pinion 25, on the shaft of which is a bevel-pinion 26, engaging with a bevel-pinion 27 on one end of a shaft 28, on the other end of which is a bevel-pinion 29, engaging with a bevel-pinion 30 on the shaft of a

pinion 31, engaging with gear-wheels 32 on the shafts of the rollers 23. By this arrangement when the car-wheels engage with the rollers 22 23 and as the current is on in the motor the car-wheels will continue to rotate while the body of the car remains at a standstill for a short time, thus giving to the passengers the idea of traveling, and this illusion will be enhanced by a moving-picture mechanism, to be shortly described.

Arranged at the center of the building is a structure 33, on the opposite sides of which the car-track passes, and at these sides the structure 33 is open, so that the passengers in the cars may observe a waterfall, here shown as consisting of a fountain 34, which has underneath it a water-illuminating device 35. Above the structure 33 is a platform 36, on which picture-projecting devices 37 are arranged, there being one of these projecting devices for each section A, B, C, and D. Movable across the lens of each projecting device is a film 38, which has the various pictures on it to give the impression of moving pictures on a screen 39, arranged on the wall of one of the tunnel-sections and viewed by the passengers through an opening 40 in an inner and larger screen-section 41. These screen-sections 39 and 41 are arranged near the outlet end of the track-section of the tunnel, and while the car in a section is remaining stationary the pictures will be first indicated on the small screen 39, and then as the car starts ahead the picture will be enlarged on the screen-section 41. The film 38 extends around a drum 42, thence over pulleys 43, 44, 45, 46, 47, and 48, and arranged forward of the part of the film in front of the projector-lens are lenses 49. Each projecting-lens has its lamp connected through a wire 50 with one of the outer rails of the track in a dark section and with the fourth rail 18 in said section through a wire 51, and arranged in the circuit is a motor 52, having a driving connection 53 with the drum 42. A pinion 54 on the shaft of the drum 42 meshes with a gear-wheel 55, on the shaft of which is a cam 56, adapted to engage with a lever 56^a, from which a rod 57 extends downward to engage with one member of a crank-lever 58, arranged at one side of the track, and from the other member of this lever 58 a rod 59 extends forward and engages with a pivoted pawl 60, having a hook end for engaging with a tooth of a brake-wheel 61, arranged at the side of the track and engaging with a pinion 62 on the shaft of one of the rollers 23. In the operation of this portion of the device and while the car is on the treadmill the moving pictures will be projected onto the screens, as before mentioned, and upon the complete rotation of the wheel 55 the cam 56 will raise the lever 56^a, so that the rods 57 and 59 will cause the pawl 60 to engage with the gear-wheel 61, thus stopping said gear-wheel, and consequently locking the rollers 22 23 from rotary motion. Then as the wheels of the car are in motion the car will pass off these rollers and continue in its course.

The rails of the loop passing around the structure 11 at the inner side are connected by branch rails 62^a and switch-tongues 63, so that a car may be switched off or continued on the loop, if found necessary, to avoid possible collision.

In the operation a car containing the passengers starts from the inlet side of the platform 6 and travels through the tunnel first into the section A, then into the section B, then to the section C, then to the section D, and out to the exit side of the platform. As has been before mentioned, when a car reaches the entrance to the dark portion of a section a circuit will be closed through the fourth rail 18, the car axle and wheels, and one of the main rails to light the signal 19. Then as the car reaches the treadmill the circuit will be closed to the motor 52, a portion of the current being shunted through the lamp in the projecting devices, as it will be noted that a resistance-coil 64 is arranged in the circuit between the motor and the light. As the tracks are inclined in the dark portions of the tunnel, the effect will be given to the passengers of riding up a mountain side. The fourth rail will terminate inward of the outlet end of the dark tunnel, and consequently the lights will be extinguished prior to the car reaching the picture-screens.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. An amusement device comprising a circuitous tunnel, a track extended therethrough, a motor-car for running on the track, and moving-picture-projecting devices operated by electricity controlled by the car.

2. An amusement device comprising a circuitous tunnel arranged in a plurality of sections, a track extended through the tunnel, an electric conductor extending along the track, an electrically-operated car for moving on the track and receiving its power from said conductor, screens arranged at various points along the track, and electrically-operated projecting devices for throwing pictures on said screens, the said devices being controlled by the car.

3. An amusement device comprising a circuitous tunnel having varying heights and arranged in a plurality of sections, a track extended through the tunnel, the said tunnel having a dark portion in each section, a car for moving on the track, an electric circuit with which the car communicates, rollers arranged in each dark section upon which the car is arranged to stand, picture-projecting devices operated electrically and controlled by the car, and electric signal-lamps at the entrance to the dark portions, the current through which is controlled by the car.

4. An amusement device comprising a circuitous tunnel arranged in sections, each section of the tunnel having a dark portion, a track extended through the tunnel, a third rail forming an electrical conductor, a fourth rail arranged in the darkened sections, a car arranged to travel on the track, a shoe formed to close connection between the third and fourth rails and the main rails, and electrically-actuated picture-projecting devices having electrical connection with said fourth rails and several of the main rails.

5. An amusement device comprising a circuitous tunnel, a track extended through the tunnel, the inner walls of said tunnels having scenic devices, certain portions of the tunnel having openings through its walls, fixed screens in line with said openings, electrically-operated picture-projecting devices for throwing pictures on said screens, a car movable on the track, and a part carried by the car for closing the circuit through said projecting devices.

6. An amusement device comprising a circuitous tunnel having scenic effects on its inner side, the said tunnel being arranged in a plurality of sections, a track extended through the tunnel, the said track having a loop portion, devices arranged in the track for rotating the car-wheels while the car is at a standstill, and an upwardly-extended structure arranged in the loop portion.

7. An amusement device comprising a tunnel, a car for running through the tunnel, and a moving-picture-projecting device controlled by the car.

8. An amusement device comprising a housing, a circuitous tunnel arranged therein, a track extended through the tunnel, a car for moving on the track, a waterfall device arranged in the housing, and means for mechanically illuminating the water.

9. An amusement device comprising a housing, a circuitous tunnel arranged in the housing, the said tunnel having darkened portions and having openings in its wall at the outlet end of each darkened portion, screens arranged in line with said openings, electrically-operated picture-projecting devices for throwing pictures onto said screens, an upright structure arranged at the center of the housing, a waterfall device arranged in said structure, and means for illuminating the water.

10. An amusement device comprising a housing, a circuitous tunnel arranged therein and having varying heights, a track extended through the tunnel and having a loop at the entrance of the housing, a third rail extended along the track forming an electric conductor, the said tunnel having a plurality of darkened portions, a fourth rail extended along the track in each darkened portion, a car movable on the track, a part carried by the car for closing the circuit between said third and fourth rails, and wind-producing devices arranged in the circuit near the outlet end of each darkened portion.

11. An amusement device comprising a circuitous tunnel, a track passing through the tunnel and having undulations, wind-producing devices at intervals along the track and a motor-operated car movable on the track.

12. An amusement device comprising a circuitous track having undulations, a car movable on the track, pairs of rollers arranged at the sides of the track with which the wheels of the car are designed to engage, a picture-projecting device comprising a movable film, an electric circuit for operating said projecting devices, an electric motor for moving the film, means carried by the car for closing the circuit through the projecting devices and motor, and means actuated by said motor for stopping the movement of said rollers.

13. An amusement device comprising a track, a car movable on the track, pairs of rollers arranged at the sides of the track at various points and adapted to receive the wheels of the car and to be operated therefrom, gear connections between the two pairs of rollers of a set, electrically-operated picture-projecting devices, and means carried by the car for closing the circuit for said projecting devices.

14. An amusement device comprising a tunnel having varying heights, a track extended through the tunnel, an electrically-operated car movable on the track, the said track having inclined portions, a mechanically-illuminated fountain around which the track passes, and cars movable on the track.

15. An amusement device comprising a circuitous tunnel having varying heights and various illustrations on the inner side thereof, along its length, a track extended through the tunnel, and automatically-controlled means for producing pictures on the inner wall of the tunnel at various points.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES B. McKAY.

Witnesses:

VINCENT ROSEMON,

W. J. RAFFERTY.