(No Model.)

# LA MARCUS A. THOMPSON.

## PLEASURE RAILWAY, &c.

No. 428,977. Patented May 27, 1890.

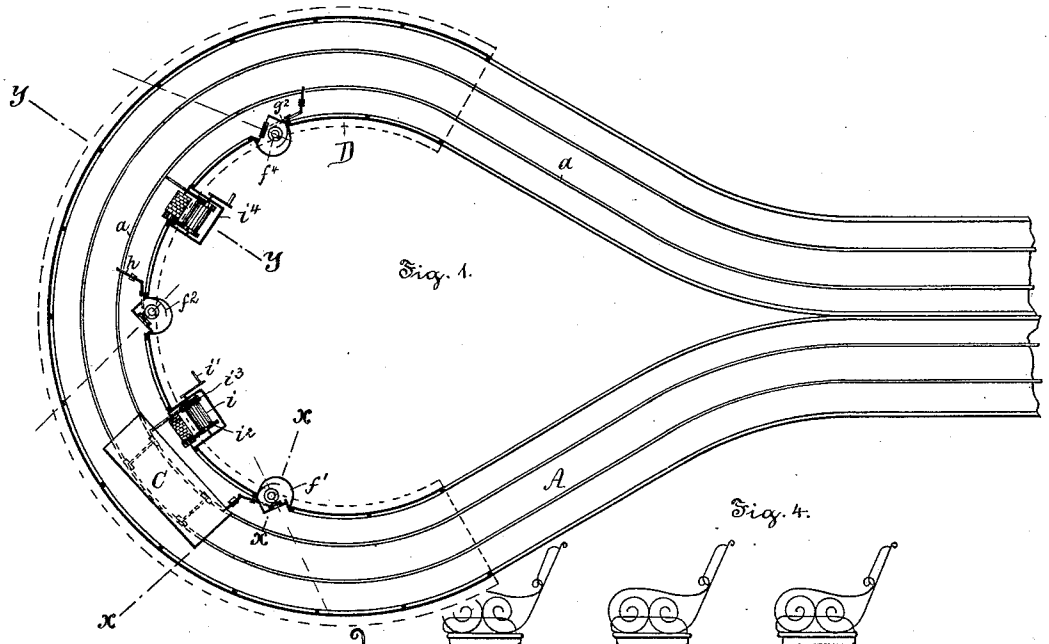



Fig. 1.

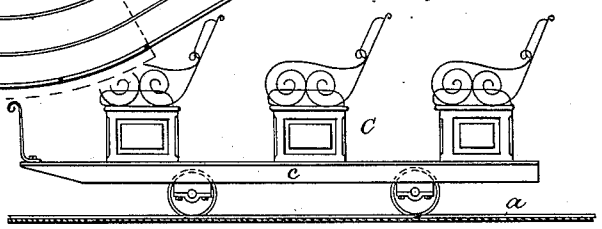



Fig. 4.

Fig. 2

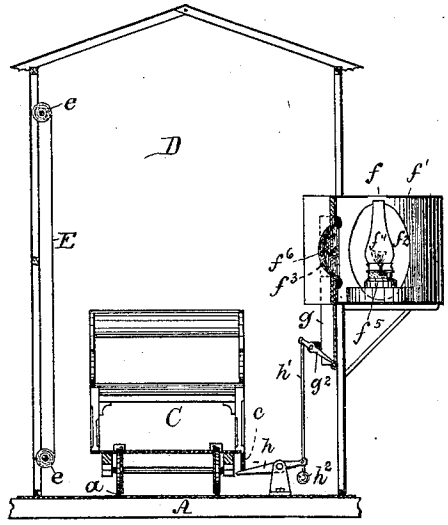
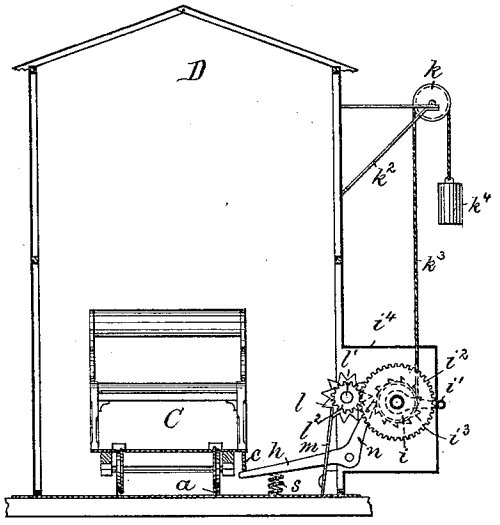



Fig. 3.

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# UNITED STATES PATENT OFFICE.

LA MARCUS A. THOMPSON, OF PHILADELPHIA, PENNSYLVANIA.

## PLEASURE-RAILWAY, &c.

SPECIFICATION forming part of Letters Patent No. 428,977, dated May 27, 1890.

Application filed March 8, 1890. Serial No. 343,136. (No model.)

*To all whom it may concern:*

Be it known that I, LA MARCUS A. THOMPSON, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Pleasure-Railways, Toboggans, &c., of which the following is a specification.

My invention relates, in general, to the construction and arrangement of tunnels applicable to pleasure or amusement railways, toboggans, and switch-back or gravity roads, and such as are provided with appliances in which their actuation by suitable mechanism is effected by cars or coaches caused or permitted to pass through the tunnels of such roads or courses.

Heretofore it has been customary to simply build a shed or tunnel over a portion of an amusement-railway, in order to vary the monotony to a greater or less extent and to enhance the sensation of a passage over such railways.

The principal object of my invention is to provide a pleasure-railway or toboggan-course with a tunnel or similar structure arranged in such manner as to appreciably enhance the sensation, excitement, and pleasure of riding over such a road or course.

My invention consists, in general, of a dark tunnel constructed and arranged over a portion or portions of a pleasure-railway, toboggan, or other somewhat similar road or course and provided with flash-lights, pictures, musical instruments, and with mechanism for automatically or otherwise actuating the same by, preferably, the cars or coaches of different designs in their passage through such a tunnel.

The nature and characteristic features of my invention will be more fully understood by reference to the accompanying drawings, forming part hereof, and in which—

Figure 1 is a top or plan view of a portion of a roadway, showing in dotted lines a tunnel embodying the particular features of my invention. Fig. 2 is a vertical section on the line $x\,x$ of Fig. 1, showing a flash-light, picture, car, or coach, and mechanism by which in the passage of the same through the tunnel the flash-light is caused to momentarily illuminate the picture. Fig. 3 is a vertical section on the line $y\,y$ of Fig. 1, showing the mechanism by which the car or coach in passing through the tunnel automatically actuates a device for emitting a sound; and Fig. 4 is an elevation of a car or coach adapted to traverse the course and provided with a cam-rod for automatically actuating the devices disposed in the tunnel.

In the drawings, A represents a portion of the roadway, having rails $a$ secured thereto.

C is a car or coach provided with a depending cam-rod $c$, and adapted to traverse the roadway A either by gravity or in any other preferred manner.

D is a tunnel secured to the frame-work of the structure or supported in any other preferred manner, and arranged so as to cover a portion of the roadway A.

E is a band or roll of canvas or other preferred fabric having grotesque pictures painted thereon and mounted on rolls $e$, so that by the revolution of these rolls a succession of different pictures are exposed to view—for example, in the same manner as the pictures are exposed to view in an ordinary panorama.

$f$ are flash-lights suitably mounted in recesses or chambers formed in the sides or walls of the tunnel D, and adapted to shed their light on the pictures painted or otherwise disposed on the rolls of canvas E. Of course the color of the rays of light emitted or deflected from the flash-lights, or such capable of being flashed, may be varied by means of pieces of colored glass placed in front of them. These flash-lights $f$ consist of a main housing $f'$, provided with a reflector $f^2$, an aperture $f^3$, and a chimney $f^4$ within said housing $f$, and in front of the reflector $f^2$ is located a lamp $f^5$ of any preferred construction. The walls of the aperture $f^3$ are provided with parallel grooves or ways for the reception of the hood $g$, pivotally secured to the bell-crank lever $g^2$.

$h$ is a lever pivotally supported at or near the center thereof and adapted to contact with the cam-rod $c$.

$h'$ is a rod pivotally connected with the lever $h$ and with the bell-crank lever $g^2$ for transmitting motion from the former to the hood $g$.

$h^2$ is a weight attached to the rod $h'$, to maintain the hood $g$ normally in front of the aperture $f^3$. It will be readily understood that when a car or coach passes through the tunnel D the rod $c$, contacting with the lever

$h$, depresses the latter and causes the hood $g$ to be momentarily withdrawn from the aperture $f^3$, and as soon as the car or coach C has passed the lever $h$, being released, permits the weight $h^2$ and the hood $g$ to return to their normal positions, thus again obscuring the light.

In Fig. 3, $i$ is a drum provided with a handle $i'$ for revolving the same in order to elevate the weight $k^4$, and this drum is provided with a gear-wheel $i^2$ and a ratchet-wheel $i^3$. The drum $i$ and the parts connected therewith are supported in a frame-work $i^4$, located in a recess or housing formed in the side or wall of the tunnel D. $k$ is a pulley supported by a bracket $k^2$, secured to the tunnel D.

$k^3$ is a cord passing over the pulley $k$, and having one end thereof attached to a weight $k^4$ and at the other end attached to the drum $i$.

$l$ is a star-wheel mounted loosely upon a counter-shaft $l'$.

$l^2$ is a pinion meshing with the gear-wheel $i^2$ and secured to or formed integral with the star-wheel $l$.

$m$ is a spring-strip rigidly secured at one of its extremities and adapted to contact at the free end thereof with the teeth of the star-wheel $l$, so that when the latter is revolved the strip will snap, thereby emitting a sound similar to that made by a watchman's rattle. The lever $h$ in the present instance is provided with a pawl $n$, held normally in engagement with the ratchet-wheel $i^3$ by means of the spiral spring $s$.

It will be readily understood that in practice the rod or strip $c$, secured to the car or coach C, engaging with the lever $h$, depresses the latter and releases the pawl $n$ from its engagement with the ratchet-wheel $i^3$, whereupon the weight $k^4$ descends, causing the drum $i$ and the star-wheel $l$ to revolve rapidly. The rapid revolutions of the star-wheel $l$ cause the spring-strip $m$ to contact therewith, and thus to emit a loud vibrating sound. As soon as the car has passed, the spring $s$ forces the lever $h$ upward, thereby causing the pawl $n$ to again engage with the ratchet-wheel $i^3$, and thus to stop the revolution of the drum and the star-wheel $l$.

In use the tunnel D is preferably located upon a curved portion of the roadway in order to insure its having a dark interior, and the flash-lights $f$ are arranged so as to cast their rays of light upon the grotesque or other pictures painted upon the roll of canvas E.

The mode of operation of the invention is as follows: The cars or coaches in traversing the course suddenly dart from the light into the dark tunnel D, whereupon a light is automatically flashed upon a grotesque picture and immediately extinguished, and then, when all is again dark, a musical sound is emitted, and such succession of lights and sounds is continued until the car or coach again emerges from the tunnel. Such arrangement of a tunnel not only greatly enhances the excitement and exhilaration of riding on a pleasure railway or toboggan, but also materially increases their popularity.

It will be obvious to those skilled in the art to which this invention appertains that flash-lights and rattles may, if preferred, be employed separately, and that drums, organs, and other preferred musical instruments may be substituted for the rattles without the exercise of invention. Moreover, it is evident that changes may be made in the construction and arrangement of the actuating mechanism without departing from the spirit of the invention. Therefore I do not desire to limit myself to the exact construction and arrangement hereinabove set forth; but,

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a pleasure-railway, toboggan-slide, &c., of a tunnel built over a portion of the roadway, cars or coaches adapted to traverse said roadway, lights located in said tunnel, and means engaging with said cars or coaches and adapted to flash said lights, substantially as and for the purposes set forth.

2. The combination, in a pleasure-railway, toboggan-slide, &c., of a tunnel built over a portion of the roadway, cars or coaches adapted to traverse said roadway, musical instruments located in said tunnel, and means engaging with said cars or coaches and adapted to actuate said musical instruments, substantially as and for the purposes set forth.

3. The combination, in a pleasure-railway, toboggan-slide, &c., of a tunnel disposed over a portion of the roadway, cars or coaches adapted to traverse said roadway, a painted or displayed canvas, lights, and instruments located in said tunnel, and means engaging with said cars or coaches and adapted to flash said lights upon said canvas and to cause said instruments to emit sounds, substantially as and for the purposes set forth.

4. The combination, in a pleasure-railway, &c., of a tunnel covering a portion of the roadway, cars adapted to traverse the same and provided with rods, lights located in said tunnel, hoods adapted to conceal said lights, and one or more levers attached to said hoods and adapted to engage with said rods, substantially as and for the purposes set forth.

5. The combination, in a pleasure-railway, toboggan-slide, &c., of a tunnel covering a portion of the roadway, cars and coaches adapted to traverse said roadway, a controlling-lever disposed in said tunnel, and a cam-rod secured to said cars and coaches and adapted to engage with said lever, substantially as and for the purposes set forth.

In witness whereof I have hereunto set my signature in the presence of two subscribing witnesses.

LA MARCUS A. THOMPSON.

Witnesses:
ANDREW ZANE,
RICHARD C. MAXWELL.