

No. 661,435.

Patented Nov. 6, 1900.

J. ANDERSON.

PLEASURE RAILWAY OR CAROUSEL.

(Application filed Feb. 12, 1900.)

(No Model.)

3 Sheets—Sheet 2.

Fig. IV.

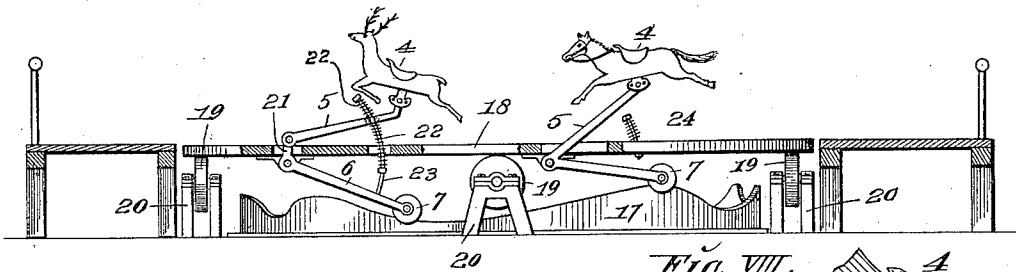


Fig. V.

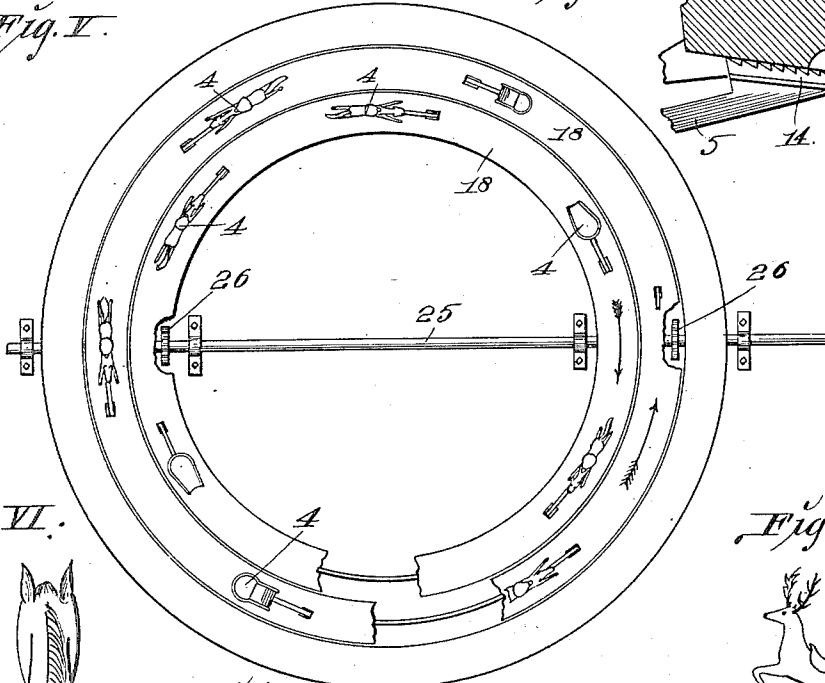


Fig. VIII.

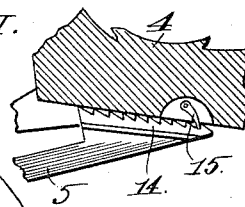
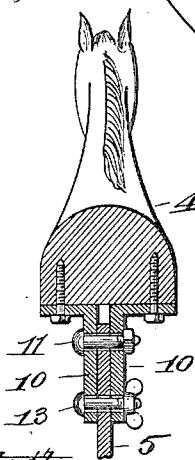


Fig. VI.



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Fig. VII.

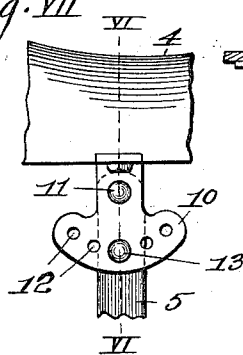
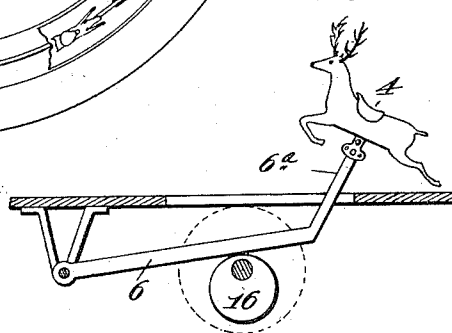


Fig. IX.



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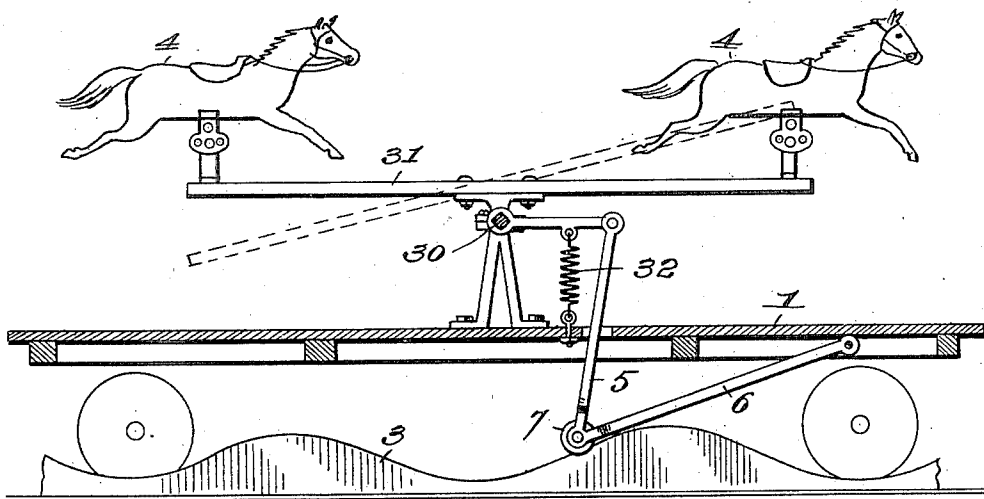
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3 Sheets—Sheet 3.

Fig. X.



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UNITED STATES PATENT OFFICE.

JOHN ANDERSON, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE ARIEL ELECTRIC AND MANUFACTURING COMPANY, OF SAME PLACE.

PLEASURE-RAILWAY OR CAROUSEL.

SPECIFICATION forming part of Letters Patent No. 661,435, dated November 6, 1900.

Application filed February 12, 1900. Serial No. 4,849. (No model.)

To all whom it may concern:

Be it known that I, JOHN ANDERSON, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Pleasure-Railways or Carousels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to add to the amusement of riding upon pleasure-railways. The apparatus may be arranged in the form of a merry-go-round or in a straight or curved track. The carriages may either be propelled by cable or other power, or, being placed on an inclined track, may be caused to move by gravity.

In carrying out my invention I provide figures or other supports for the riders, so mounted and arranged that they will have an intermittent vertical movement as the carriage travels over its track.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claim.

Figure I is a view, part in elevation and part in vertical section, illustrating my invention as applied to a straight or curved track as distinguished from a circular track. Fig. II is an enlarged vertical transverse section taken on the line II II, Fig. I. Fig. III is an enlarged detail longitudinal section. Fig. IV is a view, part in elevation and part in section, showing my invention applied in the form of a merry-go-round or circular track. Fig. V is a plan view of same. Fig. VI is an enlarged detail vertical section taken on the line VI VI, Fig. VII, and illustrating a manner of tilting the figures on their supporting-stems. Fig. VIII is an enlarged detail elevation showing the means for adjusting the figures as to height on their supporting-stems. Fig. IX is a section showing a modification of the means for giving the vertical movement to the figures. Fig. X represents another modification.

1 represents a carriage or truck supported on rails 2 and which may be propelled by means of a cable and grip, as shown by dot-

ted lines in Fig. I, or by means of other motive power, or it may be caused to move along by gravity by arranging the track in an inclined position.

3 represents a rail which I have shown arranged beneath the carriage and the upper surface of which is formed with a series of curves or inclines, as seen in Fig. I. 4 represents the figures or seats for the riders, which are mounted on bell-crank levers, each comprising supporting-stems 5, the lower ends of which are rigidly connected to arms 6, having their upper ends secured to the carriage or truck by fixed pivots, and the lower or free ends of which bear against the track 3, preferably through the interposition of anti-friction-rollers 7. As the carriage moves along the figures will have a vertical movement imparted to them, thus greatly adding to the amusement of the riders and to those looking on. By rigidly connecting the stems 5 to the pivoted arms 6 the vertical movement is imparted to the figures or seats with very little friction to the parts, so as to retard as little as may be the freedom with which the carriage or truck moves over the track. The stems 5 instead of being connected to the arms 6 at the lower or free end of the latter, as shown in Fig. I, may be connected to the arms at the fixed pivot-point of the latter, as shown in Fig. III, and a spring 8 may be interposed between the stem and the carriage to give a cushioning effect to the figure or seat as it descends, this spring surrounding a rod 9, that passes through the platform of the carriage, the rod 9 having a head on its upper end, between which and the platform of the carriage the spring is located. A single track 3 may be used or a number of these tracks arranged side by side may be used, as shown by dotted lines, Fig. II, there being a set of figures or seats provided for each track. The figures or seats are connected to the stems 5 in a manner that will permit them to be adjusted in a vertical plane, so as to tilt the figures or seats or raise or lower them to fixed positions. This tilting adjustment may be done, as shown in Figs. VI and VII, by securing a quadrant 10 to the seat, which is pivoted at 11 to the stem and which has a number of holes 12, arranged in

circular form, to receive a pin 13, that passes through the stem, or the raising or lowering adjustment may be provided for by forming a notched head 14 on the stems, which is engaged by a dog 15 on the seat, as shown in Fig. VIII.

Instead of using the track 3 with an undulating upper surface the axles of the carriage may be provided with eccentrics 16, (see Fig. IX,) upon which the arms 6 bear, (the arms 6 being provided with vertical extensions 6^a, corresponding to the stems 5,) so that as the carriage moves along the figures will have imparted to them the vertical movement.

In Figs. IV and V, I have shown the invention applied in a circular form, so that it may be used after the style of a merry-go-round. Here the track 17, corresponding to the track 3, is arranged in the form of a circle, and the carriages 18, corresponding to the carriage 1, are made in circular form, two of them being preferably used, as shown in Fig. V, although a single carriage may be used, as shown in Fig. IV. The carriages are supported on rollers 19, journaled in standards or supports 20. To the left of Fig. IV, I have shown the stem 5 pivoted to an extension 21 of the arm 6, and the free end of the stem is supported between springs 22 on a rod 23, connected to the free end of the arm 6, so that a cushioning effect to both the upward and downward movement of the figures or seats is provided. To the right of Fig. IV, I have shown a spring-supported stop 24, against which the stem 5 impinges on the downward movement of the figure or seat.

In Fig. V, I have, as stated, shown two carriages, each provided with a set of figures or seats and one arranged inside of the other. When two carriages are used, I prefer to turn

them in opposite directions, and this may be done by a single shaft 25, having pinions 26, adapted to engage racks on the under side of the carriages. By placing the pinions on opposite ends of the shaft the carriages will be made to revolve in opposite directions.

In Fig. X there is shown a modification where the stem 5 is connected to a projection on a rock-shaft 30, journaled to the carriage. Secured to the shaft is a teeter-board 31, that carries the figures or seats 4. 32 represents a spring connecting the projection on the shaft to the platform of the carriage and the tendency of which is to pull downwardly on the projection. As the carriage passes over its track it will be seen that a vertical movement will be imparted to the figures or seats.

It will be observed that the arms 6 are inclined downwardly in a direction toward the rear end of the carriage, and they therefore drag over the track 3, so that there is very little friction or resistance compared with what there would be if the arms were arranged vertically, and the arms also act as levers, of which their pivot-points are the fulcrums, to lift the seats when the carriage is in motion.

I claim as my invention—

The combination of a stationary rail having an undulating upper surface, a moving car supported upon a track, a lever pivoted to the car and extending in a downward direction, a roller journaled in the lower end of the lever and which bears against the undulating surface of the rail, an arm rising from the lever and extending through the platform of the car and a seat connected to the upper end of the arm.

JOHN ANDERSON.

In presence of—

E. S. KNIGHT,
M. P. SMITH.