C. JACOBS.

MOVABLE CAROUSEL AND FERRIS WHEEL.

APPLICATION FILED FEB. 6, 1913.

1,090,065.

Patented Mar. 10, 1914.

3 SHEETS—SHEET 1.

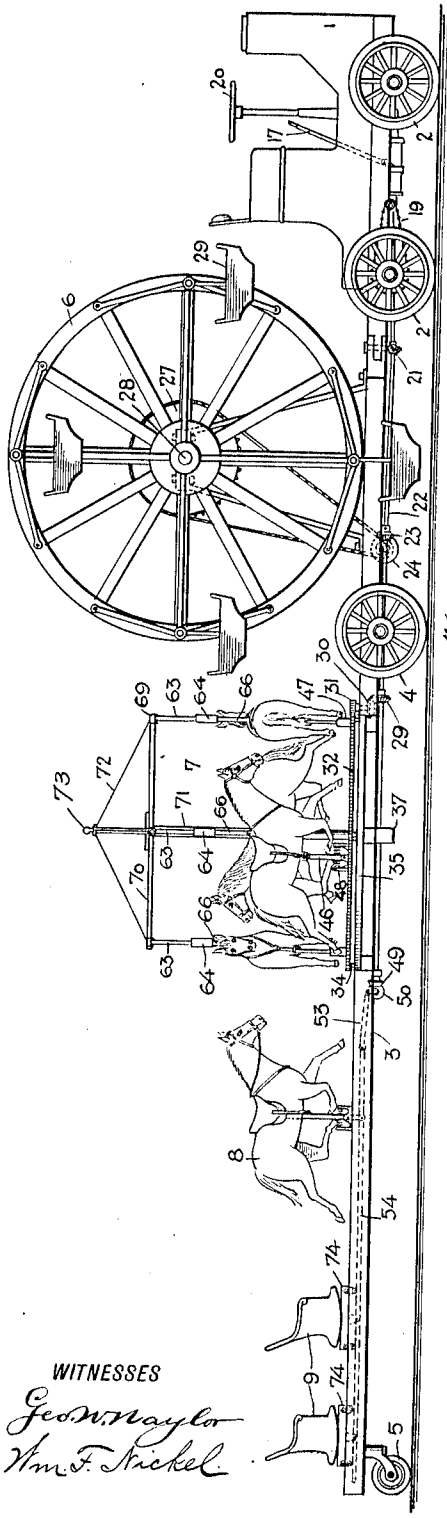

Fig. 1.

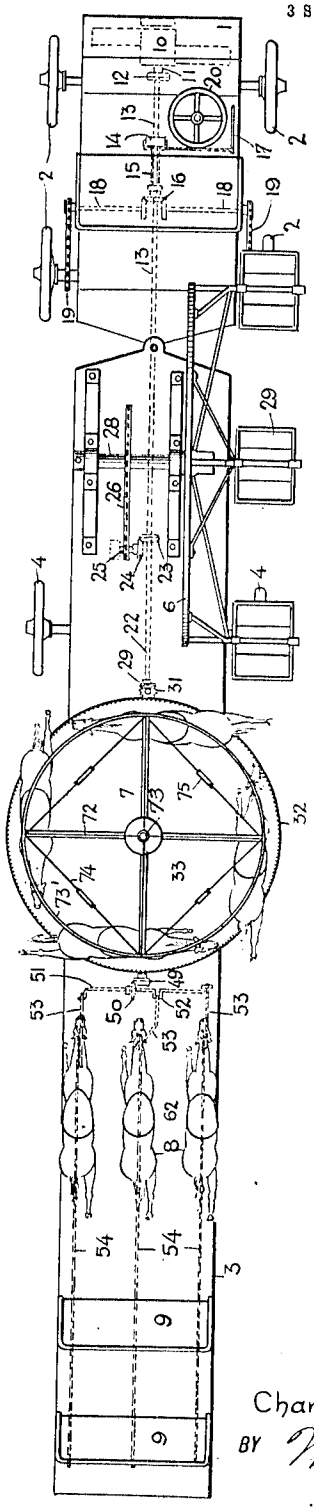

Fig. 2.

WITNESSES

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Fig. 4.

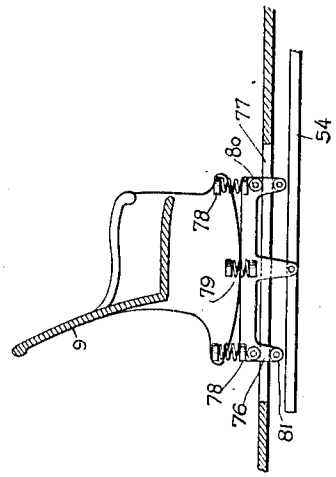

Fig. 5.

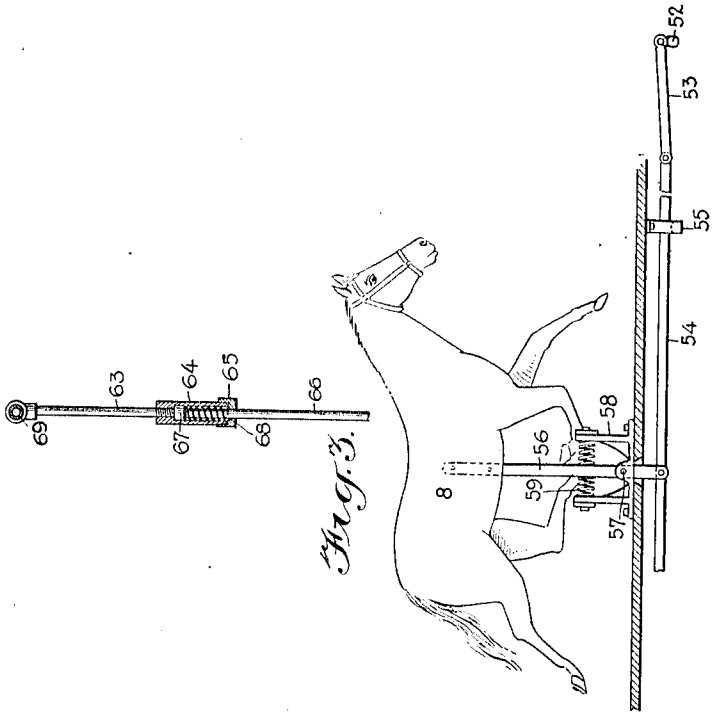

Fig. 7.

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3 SHEETS—SHEET 3.

Fig. 6.

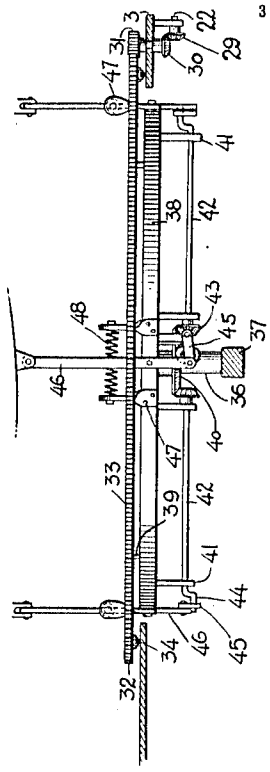
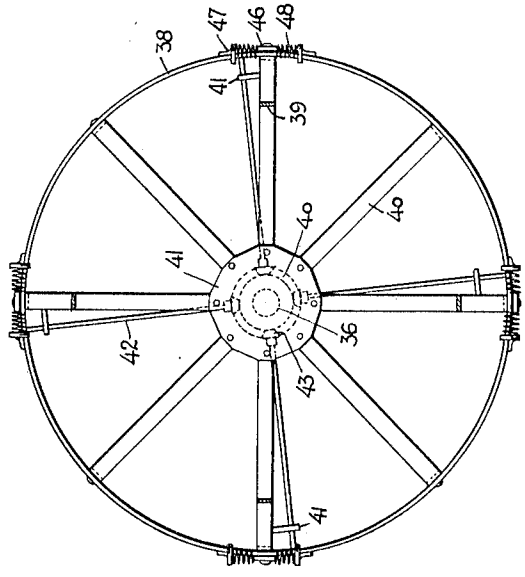


Fig. 5.



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MOVABLE CAROUSEL AND FERRIS WHEEL.

1,090,065. Specification of Letters Patent. Patented Mar. 10, 1914.

Application filed February 6, 1913. Serial No. 746,560.

To all whom it may concern:

Be it known that I, CHARLES JACOBS, a citizen of the United States, and a resident of the city of New York, Coney Island, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Movable Carousel and Ferris Wheel, of which the following is a full, clear, and exact description.

My invention relates to certain improvements in amusement apparatus designed to be used at summer resorts and fairs, and the object thereof is to produce a vehicle having amusement devices, such as a carousel and Ferris wheel, and one or two extra attachments of this nature movably mounted thereon and so connected that when the vehicle is in motion the various amusement devices will be set into operation. Such a construction gives patrons not only the usual turn on the Ferris wheel, merry-go-round or whatever else is included in the outfit, but an enjoyable ride also. Furthermore, the construction of the apparatus is such that it can be readily moved from place to place, so that after an event has been held in one place the owners can move on to the next, the apparatus thus being capable of being transferred from one town to another, especially in country districts, without the necessity of shipping or paying transportation charges upon the same.

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

Figure 1 is a side elevation of my invention; Fig. 2 is a top plan thereof; Fig. 3 is a plan of a detail, showing how the figures representing horses or other animals included in my invention can be caused to rock; Fig. 4 is a longitudinal sectional view of one of the chairs carried by my apparatus, showing the means for moving the same; Fig. 5 is a top plan showing the bottom construction of the framework for the carousel or merry-go-round forming my invention; Fig. 6 is a side elevation of the same parts, showing the manner in which the platform of the merry-go-round is revolved; and Fig. 7 is a detail of the carousel's construction.

My invention comprises a motor car 1 mounted upon wheels 2 and coupled to a truck 3. This truck has side wheels 4 near the front and a tail wheel 5 at the back to support the rear end of the same, and the truck carries a Ferris wheel 6, a merry-go-round 7, a number of figures representing rocking horses or other animals shown at 8, and a number of comfortable rocking chairs 9. The Ferris wheel and the merry-go-round are located to the front and rear of the wheels 4, so as to distribute the weight as evenly as possible, and the Ferris wheel, the merry-go-round, the figures 8 and the chairs 9 are so connected that they will be given movement relatively to the body of the truck 3 when the motor car 1 and the truck 3 are in motion over the ground. The motor car 1 has a motor 10 which turns a power shaft 11. This shaft 11 can be clutched to and unclutched from a shaft 13 having a fixed clutching element 14 and carrying a sleeve 15 loosely thereon, which has a gear 16 arranged to transmit motion to other gears on driving shafts 18 connected by means of sprockets and chains 19 to the driving wheels 2. Any suitable form of gearing can be used to cause the sleeve 15 when connected to the clutch member 14 to turn the shafts 18 in the same direction, and to this end I can employ an ordinary automobile differential gearing, such as is in common use. The sleeve 15 is connected to the clutch 14 and disconnected therefrom by means of a controlling lever 17 mounted adjacent the operator's seat on the car 1, so that the car can be set in motion or stopped at will. A suitable steering gear 20 is also mounted on the car to control the front wheels and enable the apparatus to travel in any direction.

The shaft 13 is continued past the driving shafts 18, and at the point where the motor car 1 is coupled to the truck 3 it is provided with a universal joint 21 connecting the same to the main shaft 22 which extends longitudinally of the truck beneath the same to operate the amusement devices supported thereon. Adjacent the Ferris wheel this shaft has a miter gear 23 meshing with a miter gear 24 on a short shaft 25, and this short shaft carries a sprocket pinion over which passes a chain to a sprocket gear 27 on the main shaft 28 of the Ferris wheel 6. It will be seen that the rotation of the shaft 22 causes the wheel 6 to revolve.

To the rear of the Ferris wheel the shaft 22 is provided with a miter gear 29 which meshes with a miter gear 30 on a shaft

which carries at its upper end a pinion 31. This shaft passes through the floor of the truck 3, which has its bearing therein, and carries the gears 30 and 31 below and above the floor, respectively. The pinion 31 meshes with circumferential teeth 32 carried by the carousel platform 33. This platform has anti-friction rollers 34 on its lower face which rest upon the top of the truck floor, and the sides of the truck are bowed out as shown at 35 in Fig. 1, to make a complete circular track for these rollers.

The Ferris wheel and the gearing therefor are located in front of the wheels 4, and the carousel and its gearing are located at the rear of these wheels so as to balance the weight of the apparatus. Beneath the platform 33 is an upright post 36 fixed to a cross beam 37 which is rigid with the frame of the truck. Secured to the bottom of the platform 33 is a ring 38 which is fastened to the platform by spacing and connecting members 39. The post 36 has a fixed bevel gear 40 thereon, and extending downward from the ring are bearing posts 41 in which are mounted radially-extending shafts 42. These shafts have bevel gears 43 at their inner ends meshing with the gear 40 and terminating at their outer ends in cranks 44 connected by links 45 to rocking levers 46. These rocking levers are pivoted to the ring 38 and extend upward through apertures in the part 33, and on each side of each of the levers 46 are upright lugs 47 likewise secured to the ring 38 and passing through openings in the platform, so that they project above the top of the platform. To these lugs and to the levers 46 are secured springs 48, and it will be seen that when the shafts 42 rotate, moving the cranks 44, the levers will be rocked back and forth. The figures representing the animals on which the patrons are to be seated are pivotally connected to the upper ends of these levers 46, and the oscillation of these levers will cause the animals to rock, as will be readily understood. These figures on the carousel will be pivotally connected not only to the levers 46 but they will be suspended from the ends of rods which are pivotally suspended from the top of the framework of the carousel, so that these figures will be mounted so as to be movable to the extent required to rock them, without running any risk of upsetting them when the invention is being used. These rods are shown in detail on Fig. 7. The upper section 63 of each rod will comprise a bearing, and have fixed to the lower end thereof a socket 64 having a perforated screw-threaded cap 65 engaging the lower end. Inside this socket will be the upper end of the lower section 66, which will have a head 67 inside the socket 64, and a spring 68 to engage the cap 65 and the head 67, and limit the relative movement of the two sections 63 and 66. The manner in which these extensible rods will be employed in connection with the figures representing the animals forming part of the carousel is shown in Fig. 1. The extensible rods for the carousel will have bearings 69 at their upper ends to receive the outer ends of radiating beams 70 forming the top of the framework, these beams being braced by tie wires 72 connected to the outer ends of the beams and to a central post 73. This center post may be made rigid with the platform 32, or it may be a continuation of the post 36. In the latter case the tie wires 72 will be connected to a ring which rotates around the post 73 at the top. A ring 73′ may be employed to encircle the beam 70, and diagonal tie wires 74 arranged in a horizontal plane may be employed to strengthen this ring, these tie wires or rods including turn buckles 75.

The shaft 22 terminates just behind the carousel in a miter gear 49 meshing with a miter gear 50 on a transverse shaft 51. This shaft has cranks 52 and these cranks are connected by links 53 to longitudinal reciprocating rods 54. These reciprocating rods will be connected to rock the figures 8 and at the same time to rock the chairs 9. The figure 8 will represent animals and will be fixedly connected to the upper end of a lever 56 pivoted at 57 on the floor of the truck between rigid upright arms 58, to which are connected springs 59 to act as cushions for the oscillating movement of the levers 56. The reciprocation of the rods 54 will thus rock the figures 8 in the same way as the rotation of the shafts 42 will rock the figures forming part of the carousel. These figures 8 will be arranged side by side and will be as many in practice as the width of the truck 3 will permit.

Each of the rockers 9 will be supported upon frames 76 which are horizontal but provided with vertical projections extending downward through slots 77 in the floor of the truck. The rockers and the frames will have lugs 78 between which are springs 79, and the frame 76 will be connected by cross bars 80 having rollers 81 thereon to engage the top and bottom surfaces of the floor of the truck. The middle projection of each of the frames 76 will be pinned to one of the reciprocating rods 54.

From the above description the operation of my invention will be apparent. The rotation of the shaft 13 will cause the wheel 6 and the carousel to revolve. At the same time the figures representing animals on the carousel will rock, and so will the figures 8 and the chairs 9. If the wheels 2 be clutched to the shaft 13, the motor car 1 and the truck 3 will move forward with all the amusement devices in operation, but if the wheels 2 are not clutched to the driving shaft 13 the amusement devices can be op-

erated while the truck is stationary. A suitable clutch can also be inserted between the gearing 16 and the joint 21, so that if desired the apparatus can be moved from place to place in transit without the amusement apparatus carried by it being operated at all.

I have shown only one wheel 6 mounted at one side of the truck 2, but it will be understood that in order to balance the truck 3 two of these wheels, one at each side of the same, should be employed.

I desire to have it understood that the above description is illustrative only, and I do not care to be limited to the exact details thereof, except in so far as is indicated by the accompanying claims.

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

1. The combination of a figure representing an animal, an extensible rod pivotally connected to said animal at one end and to a support above said animal at the other, a lever pivotally mounted below said figure and pivotally connected thereto at its upper end, and means engaging the lower end of said lever to oscillate the same to rock the figure.

2. The combination of a figure representing an animal, an extensible rod pivotally connected to said figure at its lower end and to a support above said figure at its upper end, a lever pivotally mounted below said figure and pivotally connected thereto at its upper end, resilient means on either side of said lever for cushioning the movement thereof, and means engaging the lower end of the lever to oscillate the same and impart movement to said figure.

3. The combination of a rocking chair and a figure representing an animal in line therewith, means for movably mounting said rocking chair and said figure, a shaft having a crank, a reciprocating rod connected to said chair and to said figure, and a link connecting said rod and said crank, whereby when the shaft is rotated the chair and the figure will be rocked.

4. In a carousel, the combination of a rotatable platform, a fixed gear wheel, shafts carried by the platform and extending radially thereof, gear wheels mounted on the shafts and meshing with the fixed gear wheel, whereby when the platform turns the shafts will be rotated, a plurality of figures movably mounted on the platform, and means connecting said shafts to said figures to rock the same as the shafts rotate.

5. In a carousel, the combination of a platform, anti-friction means on which said platform is supported, a ring secured to the lower face of the platform, uprights secured to said ring and projecting through the platform, a lever pivotally mounted upon the ring and extending through the opening in the platform between each pair of said uprights, resilient means engaging said uprights and said levers, and a figure representing an animal connected to the upper end of said lever, whereby when said lever is moved the figure will be rocked.

6. The combination of a truck having one or more amusement devices mounted thereon, a main shaft for operating said amusement devices extending lengthwise of the truck, a motor car to be coupled to the truck, and a shaft carried by the motor car having universal connection with the main shaft at one end and the motive apparatus of the said car at the other to operate the amusement devices when the truck is in motion.

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

CHARLES JACOBS.

Witnesses:
BENJAMIN F. FARRAR,
GUY W. ROLLOS.