

Oct. 1, 1929.

G. D. BULMER

1,730,265

AMUSEMENT DEVICE

Filed Dec. 10, 1928

6 Sheets-Sheet 1

G. D. Bulmer, INVENTOR
BY *Victor J. Evans*

ATTORNEY

Oct. 1, 1929.

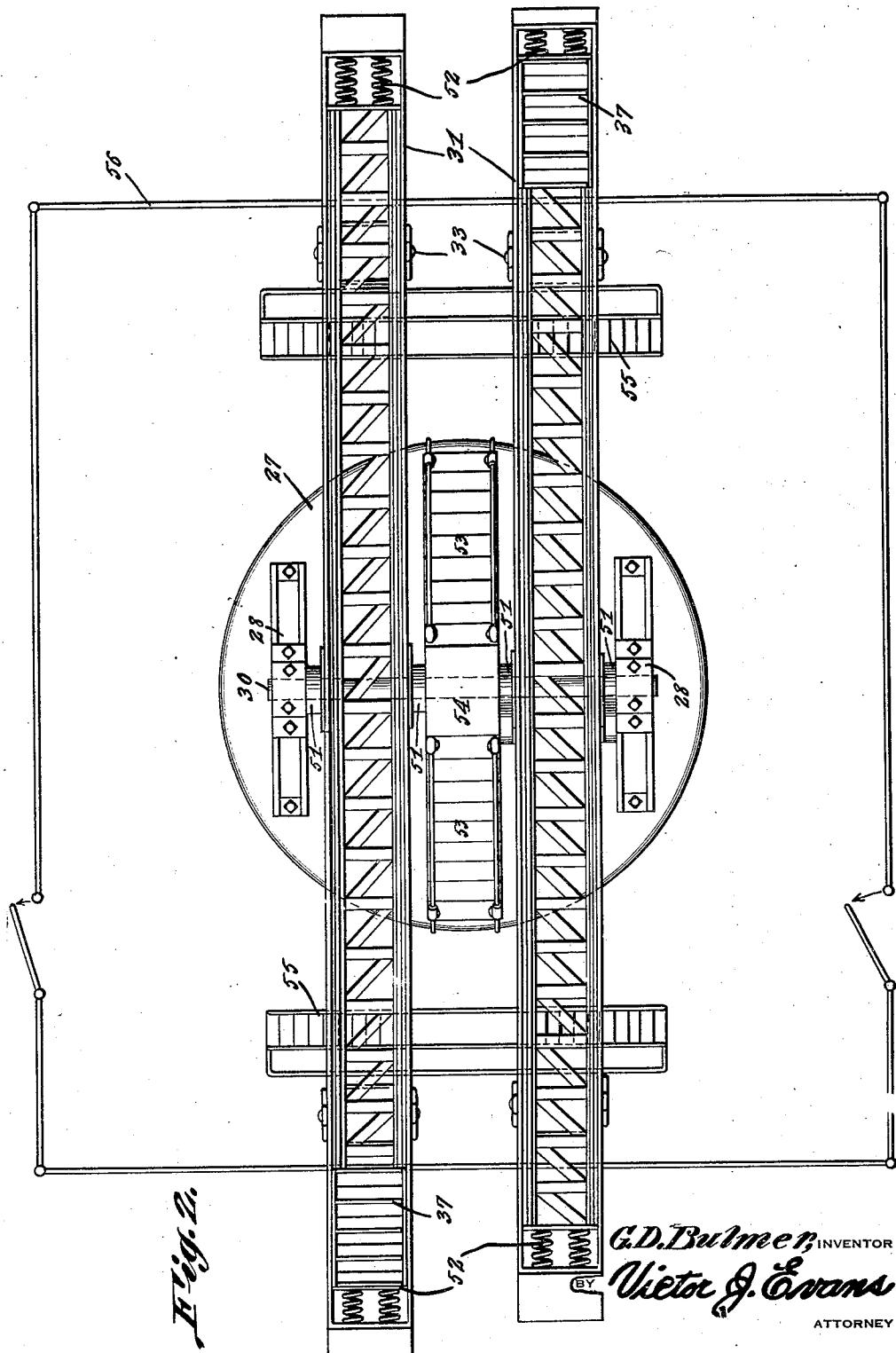
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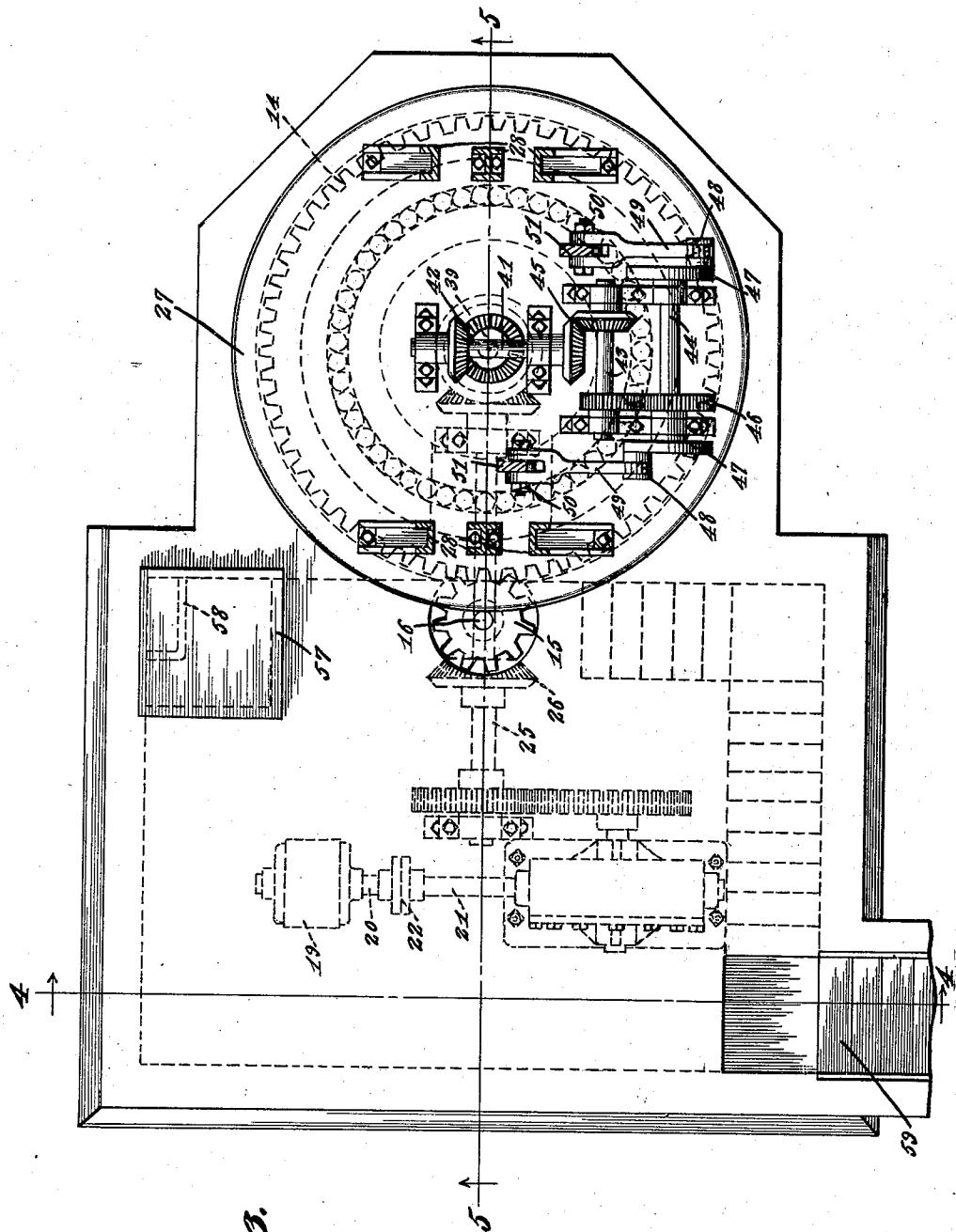


Fig. 3.

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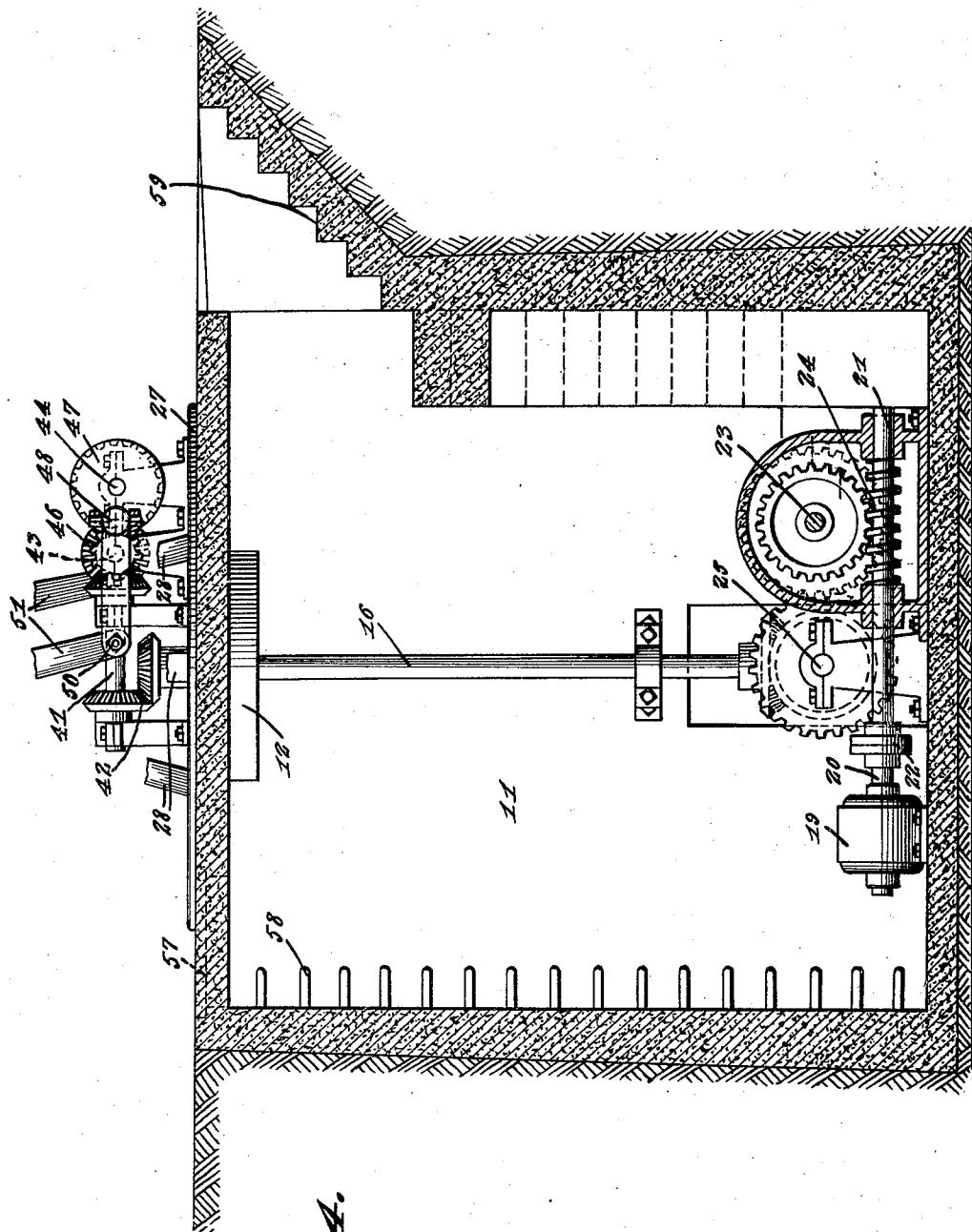


Fig. 4.

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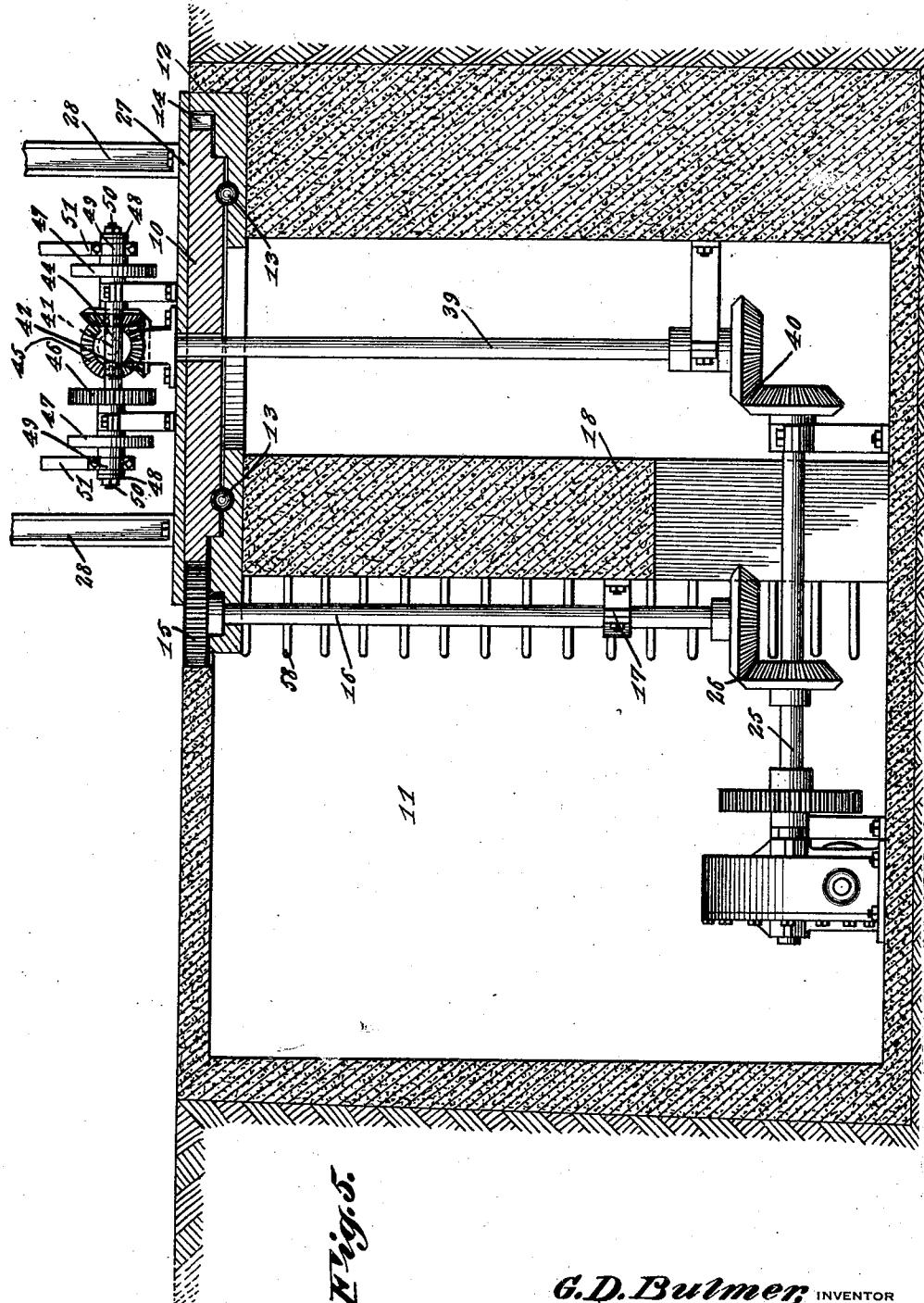
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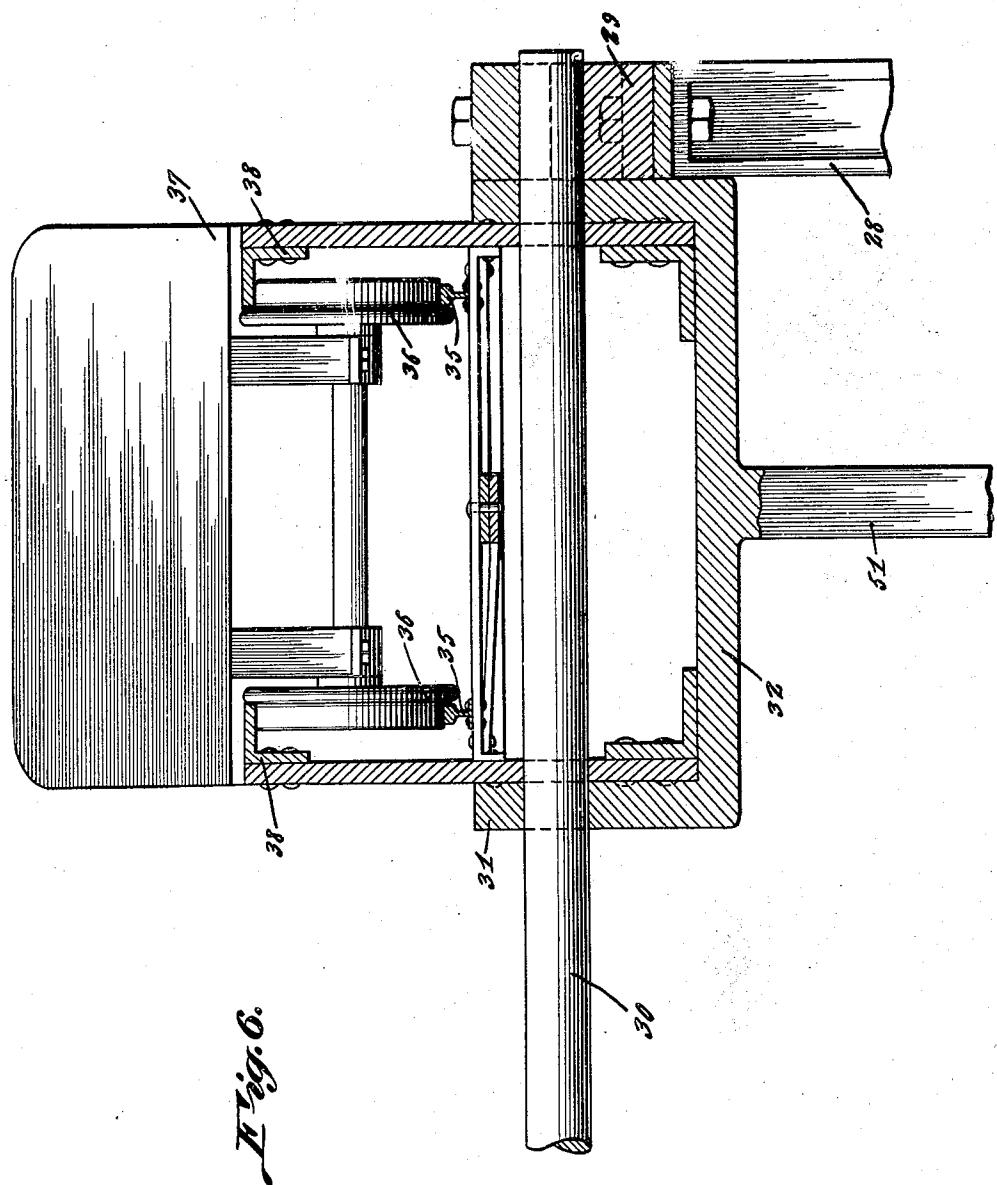


Fig. 6.

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UNITED STATES PATENT OFFICE

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AMUSEMENT DEVICE

Application filed December 10, 1928. Serial No. 325,047.

This invention relates to improvements in amusement devices especially adapted for use in amusement parks, fairs, etc., an object being to provide a device which includes a car in which passengers may ride, and to impart to said car various types and directions of movement so that the passengers will experience a new sensation or thrill.

Another object of the invention is the provision of an amusement device which, while furnishing a thrill for the riders, will be perfectly safe.

With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings:—

Figure 1 is a side elevation of an amusement device constructed in accordance with the invention.

Figure 2 is a top view of the same.

Figure 3 is a sectional view taken above the rotatable platform with parts of the apparatus omitted.

Figure 4 is a section on the line 4—4 of Figure 3.

Figure 5 is a section on the line 5—5 of Figure 3.

Figure 6 is an enlarged fragmentary sectional view taken transversely of one of the rocker arms and showing the manner of pivotally mounting the arm.

Referring to the drawings in detail wherein like characters of reference denote corresponding parts, the reference character 10 indicates a platform which is mounted for rotation above a pit or chamber 11 and for this purpose there is provided a bearing member 12 and anti-friction bearings 13. The platform 10 will thus be mounted for free rotation.

Surrounding the platform are gear teeth 14 and these teeth are engaged by a pinion 15 which is fast upon the upper end of a vertically disposed shaft 16 whose upper end is rotatably mounted in the bearing member 12. The lower end of the shaft 16 is mounted in a bearing bracket 17 which extends from a

partition wall 18 provided in the chamber 11.

Located within the chamber 11 is a motor 19 or other source of power whose shaft 20 is coupled to a shaft 21, as shown at 22. This shaft 21 drives a shaft 23 through the medium of suitable reduction gearing 24 and this gearing in turn drives a shaft 25. This last mentioned shaft is operatively connected with the shaft 16 by means of beveled gears 26 so that the platform 10 may be rotated. The platform 10 is provided with a cover plate 27 which extends over the teeth 14 and the gear 15.

Rising from and rigid with the cover plate 27 and platform 10, are spaced supporting standards 28 which support bearings 29 for the accommodation of a horizontally disposed shaft 30. Mounted upon this last mentioned shaft are rocker arms 31 which are supported intermediate their ends by the shaft so that the ends of the arms are free. These rocker arms may be of any suitable structure but are preferably in the form of truss beams so as to be rigid, strong and relatively light. The lower portions of these arms are transversely channel shaped as shown at 32 in Figure 6 of the drawings and pivotally secured to these arms as shown at 33 are cars or baskets 34, the latter depending from the arms as shown in Figure 1 of the drawings. These cars or baskets are designed to contain passengers as will be hereinafter explained.

Mounted within the rocker arms 31 are spaced rails 35 which provide tracks for the wheels 36 of cars 37. These cars are movable freely along the rails and are held from accidentally leaving the tracks by means of guard rails 38. The cars 37 may contain a suitable number of seats to accommodate a desired number of passengers.

Extending through the platform 10 into the pit or chamber 11 is a vertically disposed shaft 39 which is driven from the shaft 25 by means of gears 40. The upper end of the shaft 39 drives a shaft 41 through the medium of gears 42. Mounted in suitable bearings provided upon the platform 10 are parallel shafts 43 and 44, the former being driven from the shaft 41 by means of gears 45, while gears 46 drive the shaft 44 from the shaft 43.

Rigidly mounted upon the outer ends of the shaft 44 are eccentric disks 47 which have eccentrically pivoted thereto as shown at 48, the inner ends of pitmen 49. The outer ends of these pitmen are pivotally connected as shown at 50 to the lower ends of arms 51, one of which is rigid with each of the arms 31.

Operation of the shaft 44 will thus impart rocking movement to the arms 31 and due to the arrangement of the pitmen 49 and arms 51, the arms 31 will be alternately rocked in opposite directions.

Rocking movement of the arms 31 will impart movement to the cars 37, the cars moving from the elevated ends of the arms at a rapid rate toward the center or shaft 30 and as the opposite ends of the arms are elevated, the speed of travel of the cars will be decreased as these ends of the arms reach their highest point. Carried by the arms at each end of the tracks are shock absorbers 52, so that the cars will engage these shock absorbers and be brought to a stop without undue jolt to the occupants of the cars.

As the arms 31 are rocked, the occupants of the cars will receive an up and down motion, as well as a backward and forward movement due to the travel of the cars along the rails. In addition, the platform 10 will be rotated so that the occupants will also receive a rotary movement. The occupants of the cars 34 will receive a rotary and up and down movement.

Stairways 53 which lead to a platform 54 are provided for convenient entrance to the cars 37, while stairways 55 are provided for access to the cars 34. The device may be enclosed in a fence 56.

The top of the pit or chamber 11 is provided with a manhole 57 and rungs 58 whereby convenient access may be had to the interior of the chamber. The stairway 59 is also provided for this purpose.

While the device is primarily intended as an amusement device, it may be also used for loading or unloading ships or cars, suitable means being provided for controlling the rotary and rocking action of the arms 31 so that the load may be lifted, shifted and deposited.

As will be seen from Figure 1 of the drawings, the rocker arms are curved longitudinally. The rails 35 follow the curvature of these arms so that as the cars leave the elevated ends of the arms a rapid movement will be imparted, but this movement will be rapidly checked at the opposite ends of the arms when the latter are elevated, so that the cars travel at great speed practically throughout the length of the arms.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is here-
65 in reserved to make such changes as proper-

ly fall within the scope of the appended claims.

Having described the invention what is claimed is:

1. In an amusement device, a pivotally mounted rocker arm, means to rock the arm, a track extending longitudinally of said arm, a car movable along the track, a shock absorber at each end of the track in the path of the car, and cars depending from and pivotally secured adjacent opposite ends of the rocker arm.

2. In an amusement device, a rotatable platform, means to rotate the platform, bearing supports rising from and rigid with the platform, a horizontal shaft mounted in said supports, a rocker arm mounted upon the horizontal shaft, means to rock the arm, a track extending longitudinally of the rocker arm, a car freely movable along the track, and a shock absorber at each end of the track in the path of the car.

3. In an amusement device, a rotatable platform, means to rotate the platform, bearing supports rising from and rigid with the platform, a horizontal shaft mounted in said supports, rocker arms mounted upon the horizontal shaft, means to alternately rock the arms, a track extending longitudinally of each arm, a car movable freely along each track, and shock absorbers at opposite ends of the track in the path of the cars.

4. In an amusement device, a rotatable platform, means to rotate the platform, bearing supports rising from and rigid with the platform, a horizontal shaft mounted in said supports, a curved rocker arm mounted upon the horizontal shaft, a track extending longitudinally and following the curvature of the rocker arm, a car movable along the track, and shock absorbers at opposite ends of the track in the path of the cars.

In testimony whereof I affix my signature.

GEORGE D. BULMER.

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