J. A. FISHER.

AMUSEMENT DEVICE.

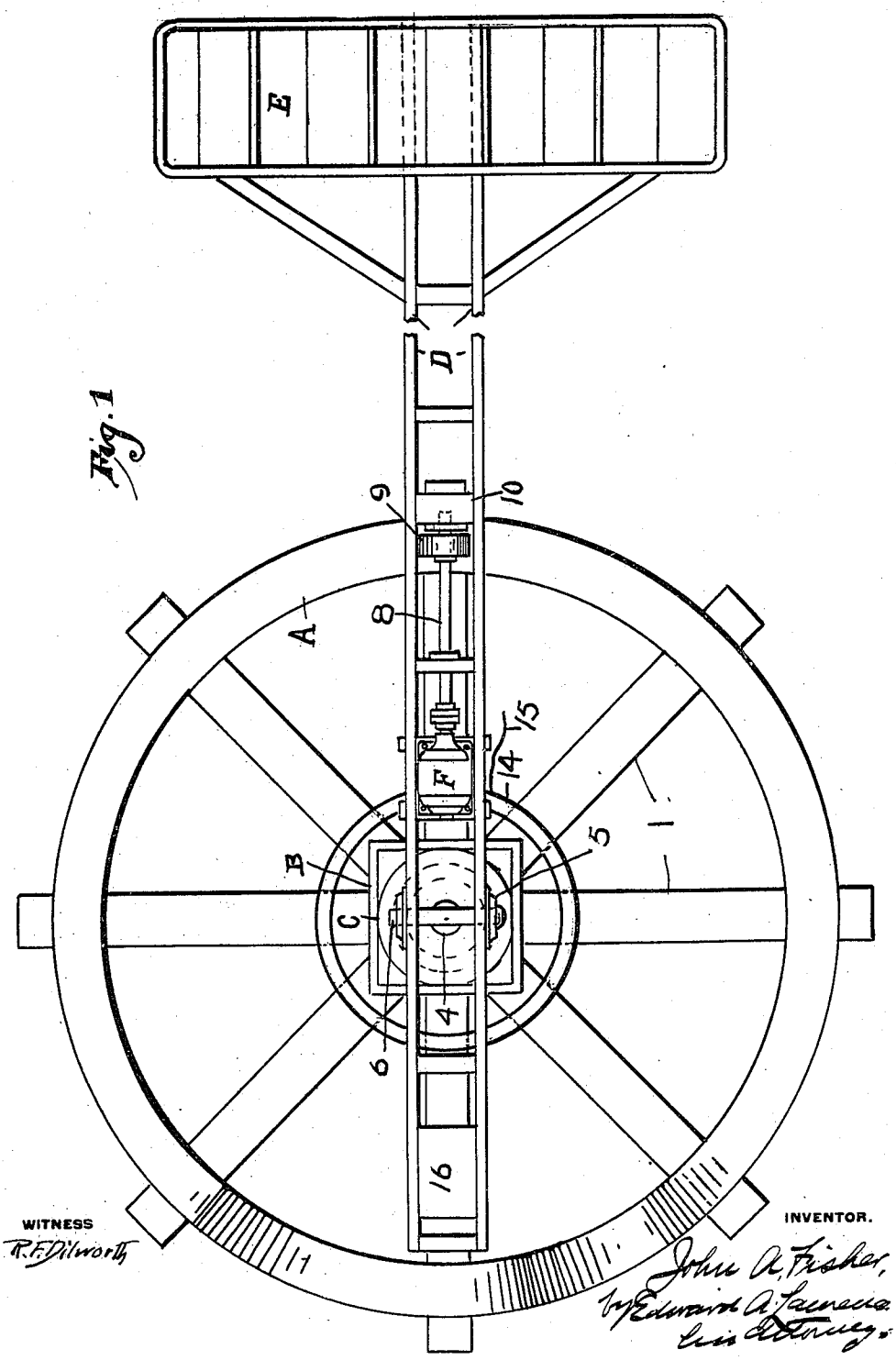
APPLICATION FILED AUG. 6, 1918.

1,295,145.

Patented Feb. 25, 1919.

2 SHEETS—SHEET 1.

Fig. 1



WITNESS

R. F. Dilworth

INVENTOR.

John A. Fisher,

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2 SHEETS—SHEET 2.

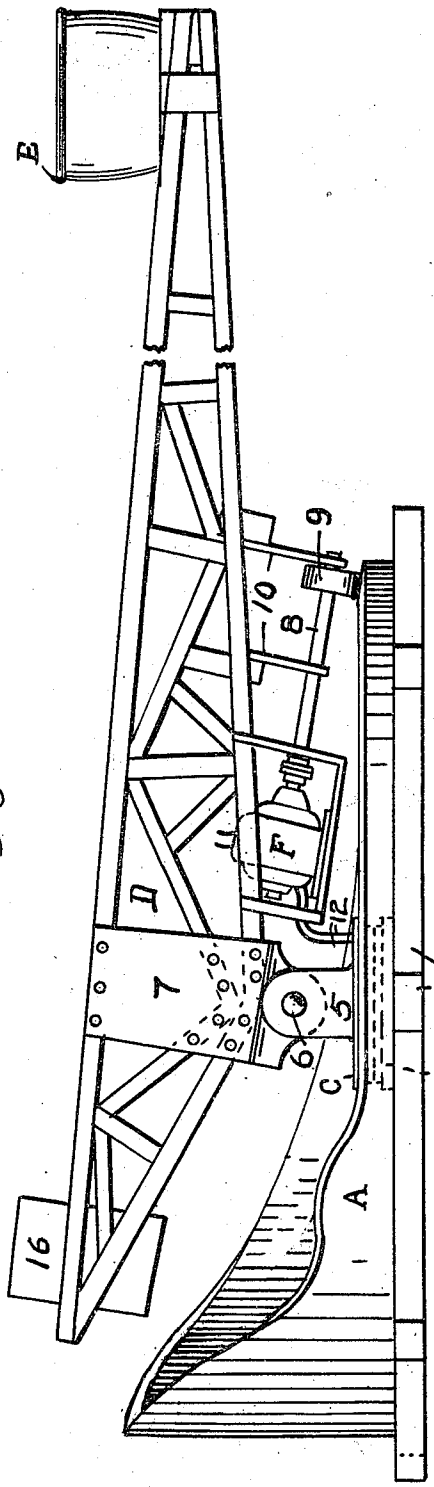

Fig. 2

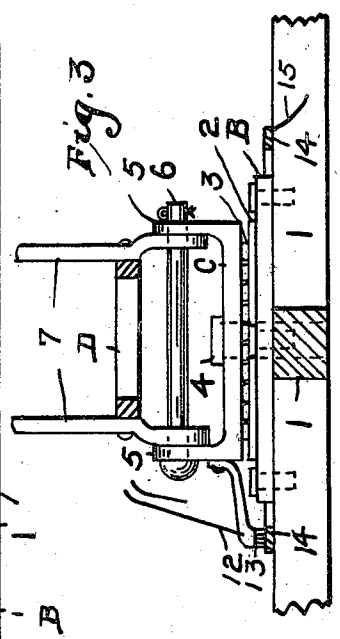

Fig. 3

WITNESS

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UNITED STATES PATENT OFFICE.

JOHN A. FISHER, OF HOMESTEAD BOROUGH, PENNSYLVANIA.

AMUSEMENT DEVICE.

1,295,145. Specification of Letters Patent. **Patented Feb. 25, 1919.**

Application filed August 6, 1918. Serial No. 248,548.

To all whom it may concern:

Be it known that I, JOHN A. FISHER, a citizen of the United States, and residing in the borough of Homestead, in the county of Allegheny and State of Pennsylvania, have invented or discovered new and useful Improvements in Amusement Devices, of which the following is a specification.

My invention consists in certain new and useful improvements in rotary, passenger-carrying amusement devices, and, generally speaking, is characterized by a passenger car mounted on the end or one of the ends of an arm which is mounted to rotate in a horizontal plane and to swing in a vertical plane, the arm being supported by a wheel whose axis is radial of the rotary movement of the arm, and which runs on an annular track concentric with the machine and provided with sharp undulations, preferably characterized by gradual ascents and abrupt descents. The arm is caused to travel about its center by power applied to the wheel from a motor or other source of power which is preferably mounted on the arm, and to facilitate such movement, I prefer to provide the end of the arm opposite to the passenger car with a counterweight to relieve to a degree the pressure of the wheel upon the track.

In the construction of rotary, passenger carrying devices, great difficulty has been encountered in the centerpost structure, requiring guy wires or other supports which are expensive, take up room and impair the ornamental appearance of the machine. My improved construction requires no center post, and consequently no guy wires or other exterior supports. I am thus enabled to construct my machine in compact, simple form which is of light weight and readily portable from place to place, being taken down and set up with but little trouble or loss of time.

Novel features of arrangement and construction of parts will appear from the following description.

In the accompanying drawings, which are merely intended to illustrate the principles of my invention without limiting the scope of the same to the construction shown, Figure 1 is a plan view of my improved amusement device; Fig. 2 is an elevation of the same, and Fig. 3 is an enlarged detail, partially broken away in section, showing the center pivot construction.

The following is a detailed description of the drawings.

A represents an annular track of any suitable construction, but preferably of portable type which may be supported on the radial sills 1 at whose center is provided the solidly mounted bed plate B provided on its upper surface with the annular, concentric raceway 2 to accommodate the balls 3 or other anti-friction members. C is a base plate whose under surface is provided with a similar raceway for said balls whereby the base plate is rotatably supported on the bed plate.

I prefer to use a novel form of track provided with one or more irregular elevations, the downward incline being relatively steep and abrupt, while the rising incline, in the direction of rotation of the arm, is relatively gradual to prevent shock to the structure and passengers.

A bolt or other member 4 extends down through the bed plate and base plate to maintain them in proper relation and prevent wabbling of the latter as it revolves.

The base C is provided with a pair of upwardly extending and diametrically opposed standards or ears 5 which are horizontally pierced to receive a bolt 6 by means of which a pair of side plates 7 are pivotally mounted on the base plate C. Said side plates are bolted or otherwise secured to the sides of an arm member D which is preferably of truss construction to give strength, rigidity and light weight.

One end of said arm, which extends beyond the track A, is provided with a passenger car E of any desired design or character. Said car is preferably rigidly mounted on the end of said arm so as to move integrally therewith, thus being capable of a horizontal revolution and a vertical swing but preferably without tipping or tilting tangential to the circle of its movement.

8 is an axle or driving shaft journaled on the arm D and positioned so that its axis intersects the axis of rotary movement, and 9 is a wheel rigidly mounted on said axle and engaging the track A. The axle may be conveniently journaled in brackets 10 depending from the arm D.

Thus it is seen that as the arm D rotates

and the wheel 9 runs along the undulating track A, the car E will rise and fall, but will retain its horizontal position without dangerous tipping or tilting.

F is an electric motor or other source of power which is preferably mounted on the arm D, and supplied with current by any convenient means, such as a conductor 12 connected with a brush 13 carried by the base 3 and in constant contact with an annular conductor 14 mounted on the sleepers 1 and concentric with the axis of rotation. A conductor 15 connects the conductor 14 with a dynamo or other source of energy.

To relieve the weight on the wheel 9, I prefer to provide the other end of the arm D with a counterweight 16 of sufficient heaviness to partially counterbalance the loaded car E but not to interefere with the traction of the wheel 9 on the track A.

It is evident that when the motor is running, the wheel 9 will be power-driven along the track A, thus causing the arm D to turn on its horizontal pivot and at the same time rise and fall as the wheel mounts and descends the undulations of the track. The fact that the arm D is supported on the track by a single wheel or revolving member mounted on an axle disposed radially of the axis of the machine's rotation and that the passenger car, moving with the arm, is incapable of tilting or dipping out of its horizontal plane, enables me to use much sharper or abrupt inclines downward in the track A than would be safe were the car permitted to tilt or dip longitudinally. I can also use a much greater speed of rotation than I could otherwise safely or practically utilize with such abrupt descents.

One very important advantage of my improved amusement device is its extreme simplicity and compactness. This feature greatly reduces the cost of manufacture and upkeep, and also renders the device especially adapted for use on connection with traveling circuses and carnival companies, as it can be quickly set up, taken down and transported from place to place.

What I desire to claim is:

1. An amusement device comprising an annular undulating track, an arm mounted radially of said track and pivoted concentrically thereof, said arm being capable of swinging in a horizontal plane and in a vertical plane only, a wheel carried by said arm and running on said track, and a passenger car rigidly mounted on the outer portion of said arm, whereby as said wheel travels along said track said car follows the dips in the track without tilting from its substantially horizontal position.

2. An amusement device comprising an annular undulating track, an arm mounted radially of said track and pivoted concentrically thereof, said arm being capable of swinging in a horizontal plane and in a vertical plane only, a wheel carried by said arm and running on said track, means for applying power to drive said wheel along said track, and a passenger car rigidly mounted on the outer portion of said arm, whereby as said wheel travels along said track said car follows the dips in the track without tilting from its substantially horizontal position.

3. An amusement device comprising an annular undulating track, an arm mounted radially of said track and pivoted concentrically thereof, said arm being capable of swinging in a horizontal plane and a vertical plane only, a wheel carried by said arm and running on said track, a prime mover mounted on said arm and operatively connected with said wheel to revolve the latter, and a passenger car rigidly mounted on the outer portion of said arm, whereby as said wheel travels along said track, said car follows the dips in the track without tilting from its substantially horizontal position.

4. An amusement device comprising an annular undulating track, a bed plate concentric of said track, a base plate horizontally pivoted on said bed plate, an arm vertically pivoted on said base plate, a passenger car rigidly mounted on said arm, a wheel mounted on said arm and engaging said track, the axis of said wheel intersecting the axis of movement of said base plate, and means for applying tractive power to said wheel.

5. An amusement device comprising an annular undulating track, a bed plate concentric of said track, a base plate horizontally pivoted on said bed plate, an arm vertically pivoted intermediate of its ends on said base plate, a passenger car rigidly mounted on said arm, a wheel mounted on said arm adjacent to said car and engaging said track, the axis of said wheel intersecting the axis of movement of said base plate, and means for applying tractive power to said wheel.

6. An amusement device comprising an annular undulating track, a bed plate concentric of said track, a base plate horizontally pivoted on said bed plate, an arm vertically pivoted intermediate of its ends on said base plate, a passenger car rigidly mounted on one end of said arm, a wheel mounted on the said end of said arm engaging said track, the axis of said wheel intersecting the axis of movement of said base plate, means for applying tractive power to said wheel, and a counterweight for the other end of said arm, substantially as described.

7. An amusement device comprising an annular track characterized by a relatively gradual ascent and an abrupt descent, an arm pivoted concentrically of said track to swing in a horizontal plane and a vertical

plane only, a passenger car rigidly mounted on said arm, a wheel carried by said arm and engaging said track, and means for applying tractive power to said wheel, substantially as described.

8. An amusement device comprising an annular track characterized by a relatively gradual ascent and an abrupt descent, an arm pivoted concentrically of said track to swing in a horizontal plane and a vertical plane only, a passenger car rigidly mounted on said arm, a wheel carried by said arm and engaging said track, and a prime mover carried by said arm for applying tractive power to said wheel.

9. An amusement device comprising an annular track characterized by a relatively gradual ascent and an abrupt descent, a trussed arm pivoted concentrically of said track to swing in a horizontal plane and a vertical plane only, a passenger car rigidly mounted on said arm, a wheel carried by said arm and engaging said track, and an electric motor mounted on said arm for the application of tractive power to said wheel, substantially as described.

Signed at Sandusky, O. this 31st day of July, 1918.

JOHN A. FISHER.