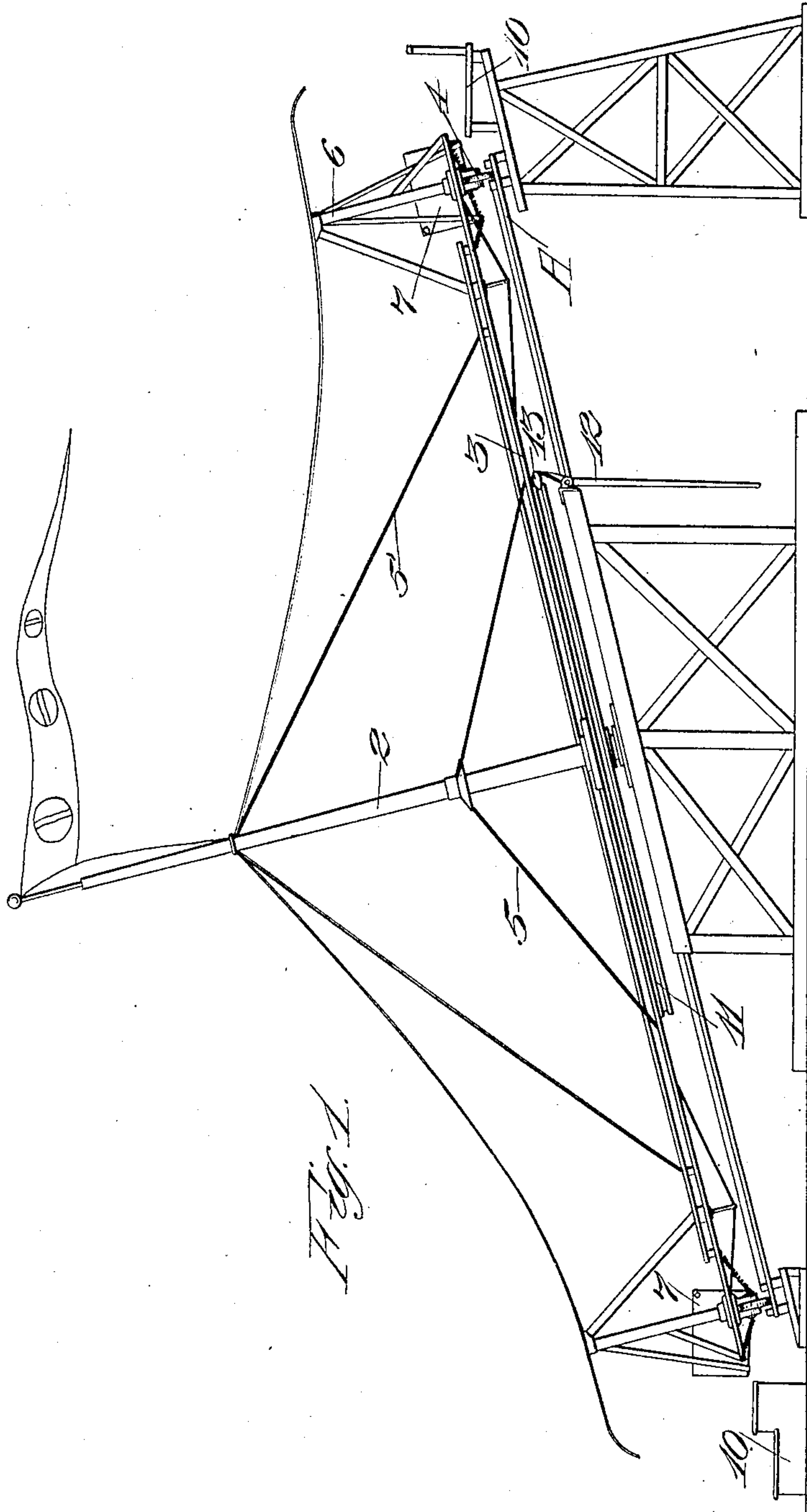


No. 878,400.

F. J. JOHNSTON.
AMUSEMENT DEVICE.
APPLICATION FILED DEC. 7, 1906.

PATENTED FEB. 4, 1908.

2 SHEETS—SHEET 1.



WITNESSES:

E. Castberg
J. H. Sauer

INVENTOR

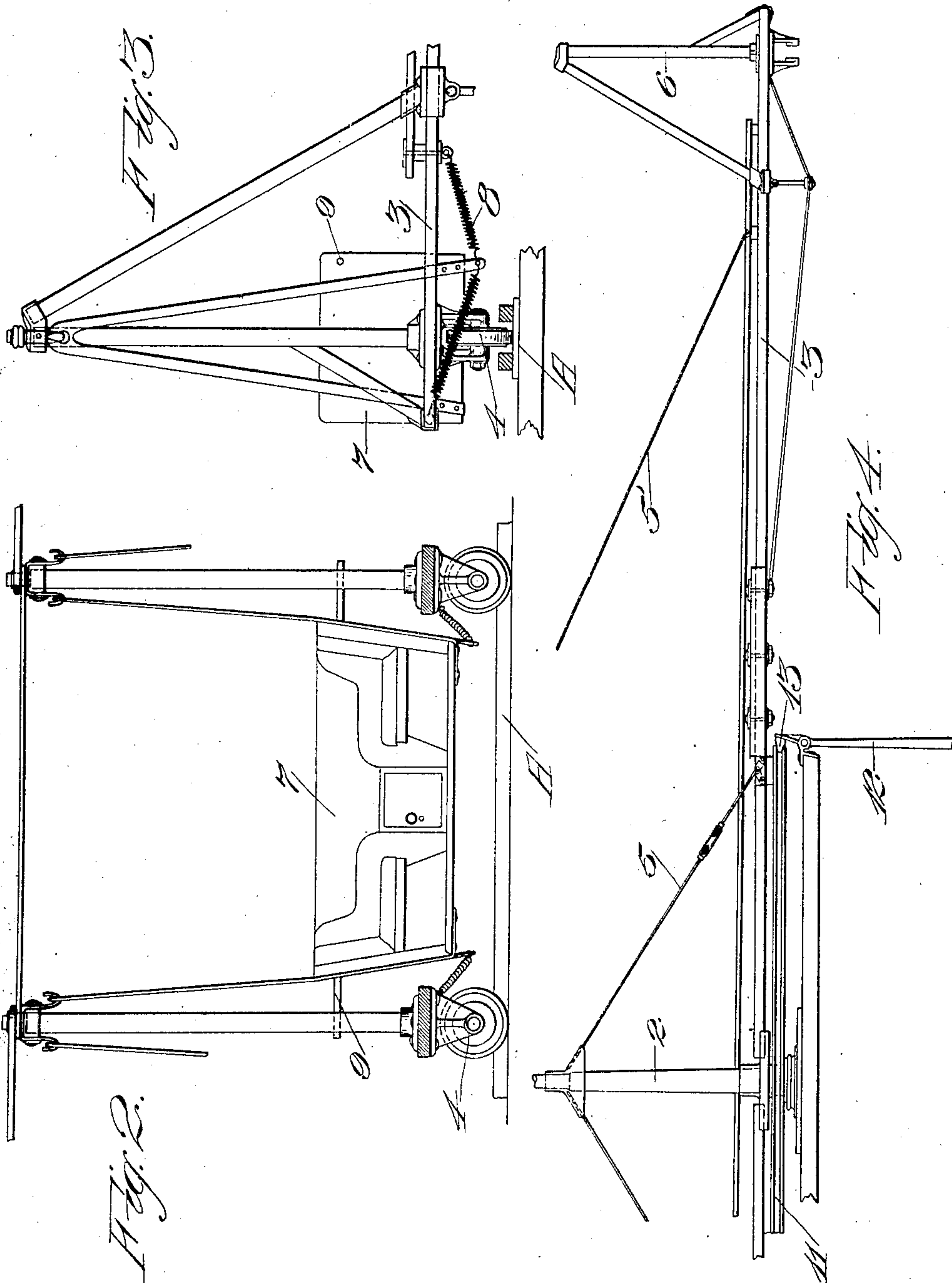
Frank J. Johnston
BY *Geo. H. Strong*
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WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANK J. JOHNSTON, OF OAKPARK, CALIFORNIA, ASSIGNOR TO F. J. JOHNSTON CIRCLE WAVE AMUSEMENT CO., OF SACRAMENTO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

AMUSEMENT DEVICE.

No. 878,400.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed December 7, 1906. Serial No. 346,718.

To all whom it may concern:

Be it known that I, FRANK J. JOHNSTON, citizen of the United States, residing at Oakpark, in the county of Sacramento and State of California, have invented new and useful Improvements in Amusement Devices, of which the following is a specification.

My invention relates to amusement devices. Its object is to provide an apparatus which shall combine the pleasurable effects and results now obtainable only in a number of distinct and separate amusement apparatuses; that is to say, I seek to obtain in a single apparatus the combination of the "toboggan slide," the "merry-go-round" and the "circle swing," constituting what I term "the circle wave"; at the same time it is my chief desire to render the apparatus simple of construction and operation, and thoroughly safe to the occupants.

The invention consists of the parts, and the construction and combination of parts as hereinafter more fully described and claimed having reference to the accompanying drawings, in which—

Figure 1 is an elevation of the invention, certain parts being omitted. Fig. 2 is a side elevation of the car showing means of supporting it. Fig. 3 is a detail of the apparatus showing an end elevation of a car with its spring supporting means. Fig. 4 is an enlarged detail of part of the frame.

In the so-called "toboggan slide" as commonly constructed and operated, a car is adapted to move at a rapid rate over an undulating track. In the so-called "circle swing" plan a series of cars or carriages are hung by rods from the top of a mast which is adapted to be revolved; as the speed of revolution of the mast and suspended parts increases, the cars swing outwardly by centrifugal force until they stand at a considerable incline to their perpendicular axis of rotation. While both these plans have their attractive features, they both embody more or less an element of danger.

In the embodiment of my invention I employ a circular flat track A mounted upon a suitable supporting structure, with the entire track lying in an inclined plane from the horizontal, as shown in Fig. 1. Concentric with the track and perpendicular to the plane thereof is a central mast 2, which is suitably supported for rotation, and from which radiate the braces 3, which are sup-

ported at their outer end on the rollers 4, running on the track A. These radial braces 3 are of suitable construction, and suitably braced and guyed by the rods and cables 5—5' and constitute a revolving platform. At suitable intervals around the outside of this platform are erected the standards or uprights 6 which, like all the rest of the apparatus, are of suitable material and construction to withstand the weight and strain put upon them. From the top of these standards are hung the cars 7; usually one end of two adjacent cars being supported on a single standard, as shown in Fig. 2. The standards or uprights 6 are arranged perpendicular to the plane of the platform and the axis of the rollers 4, and they extend in line above said rollers. At the upper ends of these standards or uprights are suitable suspending devices which are herein shown as in the form of hooks 6', which engage suitable eyes or holes in the upper ends of the forked hangers 6" whose members diverge downwardly and attach to the cars at opposite sides of the longitudinal center thereof, one of said members being extended so as to form a convenient means for the attachment of one end of suitable tension springs 8.

The cars are of any appropriate or desired construction and design, and are hung to have a limited swinging movement in a plane radial to the track. This swinging or oscillating movement of the car however is limited by the tension springs 8; two springs being employed at the end of a car, with the adjacent ends of the two springs secured to the car, and the other ends being attached to a fixed part of the revolving platform. Normally, with the car at rest, the springs will be inert, and the car will hang plumb. However as the platform is set in motion and the speed increases, the cars acting under centrifugal force, will tend to swing outward and the inside springs will yield a proper amount to allow the production of the desired effect on the occupants of the car. The extent of this outward oscillation of the car may be positively limited against the breakage, or the too great resiliency of the spring by suitable means, as shown at 9, where a part of the car is adapted to engage a fixed part of the platform, in the event of the car tending to swing beyond a predetermined limit.

The whole apparatus, mast, platform and all with the exception of the cars when the

latter are at rest, stands always at an incline to the perpendicular. The result is that while the apparatus, on being set in motion, will turn constantly in the same inclined plane, the occupants of the car will be treated to the novel sensation of traveling not only in a circle, but of also riding up and down over a track of constantly changing levels, and of also swinging outward on the trunnions of the car hangers.

The structure may be built of any desired size, 100 or more feet in diameter. By having the platform supported on a track at its perimeter, and by having the track perfectly flat, with no sudden jolts or bumps or undulations, the apparatus can be run at considerable speed, and with practically no danger of an accident.

Outside of the revolving platform, there may be built a surrounding platform to permit of the embarking and disembarking of the passengers from any of the cars, when the device is at a stand-still. Any appropriate means may be employed to revolve the apparatus: The mast has fixed to it on the under side of the platform, a grooved pulley 11 for a rope drive, leading from any suitable source of power. The revolution of the platform can be checked or controlled by suitable means as the friction brake 12 which is fulcrumed to a fixed part of the apparatus, and has a shoe 13 to engage the groove in the pulley 11.

In order to render the apparatus as noiseless as possible in operation, the rollers 4 are preferably rubber-tired.

It is possible that various modifications may be made in the construction herein shown without departing from the principle of the invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. An improved pleasure apparatus having in combination a continuous track, a rotary platform, rollers at the perimeter of the platform engaging the track, a centrally disposed mast and braces or guys connecting the same with the platform, supports carried by the platform, and arranged perpendicular

to the platform and to the axis of the rollers, passenger conveyances arranged one between each pair of supports, hangers secured to the passenger conveyances said hangers having their upper ends pivotally connected to the supports whereby the conveyances are capable of swinging transversely of the platform.

2. An improved pleasure apparatus having in combination a continuous track, a rotary platform, rollers at the perimeter of the platform engaging the track, supports carried by the platform, and arranged perpendicular to the platform and to the axes of the rollers, passenger conveyances arranged one between each pair of supports, hangers secured to the passenger conveyances said hangers having their upper ends pivotally connected to the supports whereby the conveyances are capable of swinging transversely of the platform, said hangers being forked and the members thereof diverging downwardly and being secured to the conveyances at opposite sides of the center thereof, and springs for limiting the swinging movement of said conveyances.

3. An improved amusement apparatus having in combination a flat circular track transversely inclined and devoid of undulations, a central mast mounted for rotation concentric with said track and perpendicular to the plane thereof, a platform rigid with said mast parallel with the plane of said track, braces or guys connecting the mast with said platform, rollers in the perimeter of said platform and adapted to run on said track, seats for passengers on said platform, standards projecting from the platform perpendicular thereto and to the axis of the rollers, said seats being suspended from the upper ends of the standards whereby the seats may have a limited oscillating movement transversely of the track.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK J. JOHNSTON.

Witnesses:

WM. W. MOTT, Jr.,
EDW. CÉCHELTENI.