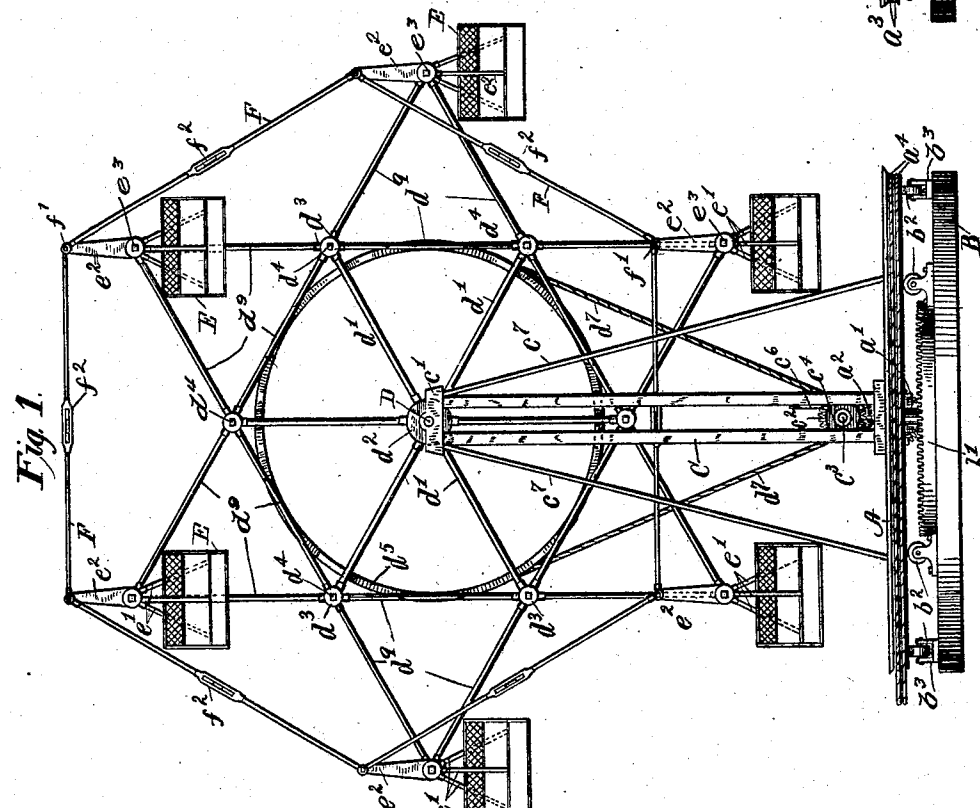
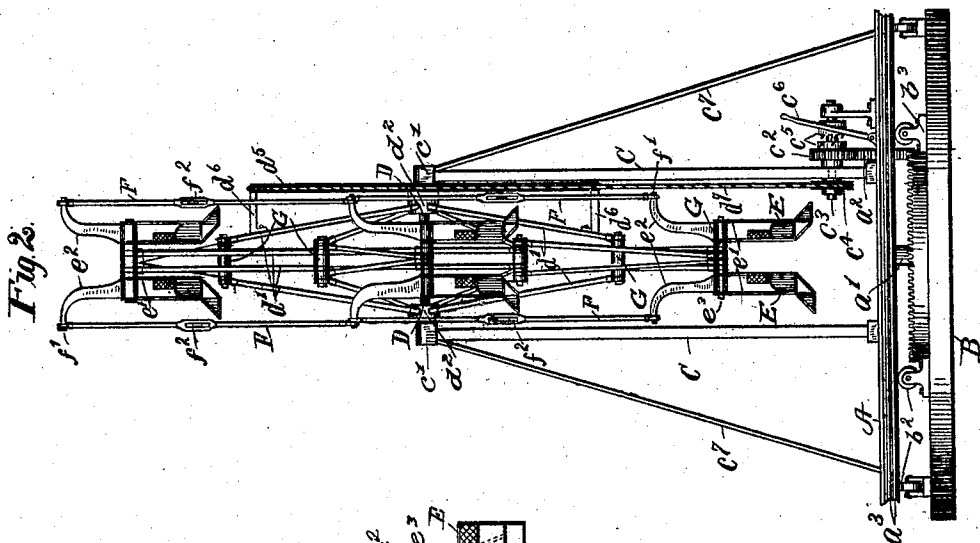
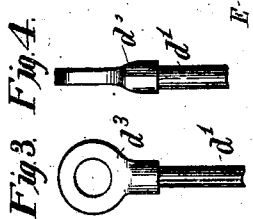


W. B. THOMAS.  
AMUSEMENT APPARATUS.  
APPLICATION FILED JAN. 20, 1906.



Witnesses:  
Chas. F. Bassett  
W. A. Milord



Inventor  
W. B. Thomas  
By Frederick Benjamin  
Att'y.

# UNITED STATES PATENT OFFICE.

WALTER B. THOMAS, OF CHICAGO, ILLINOIS, ASSIGNOR TO NATIONAL CONCESSIONS COMPANY OF CHICAGO, A CORPORATION OF SOUTH DAKOTA.

## AMUSEMENT APPARATUS.

No. 858,768.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, WALTER B. THOMAS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Amusement Apparatus, of which the following is a specification.

My invention relates to improvements in that class of amusement apparatus in which passengers are carried in cars suspended from a frame-work revolving on a horizontal axis.

My improvements are designed to add useful, ornamental and novel features to such apparatus and at the same time, provide an exceptionally strong and rigid construction that can be readily assembled and disassembled, and in which equalizers are provided whereby the cars are maintained at all times in true vertical alinement thus avoiding the objectionable results of centrifugal action common to various styles of such apparatus now in general use.

A further object of my improvements is to provide a construction in which the view of the occupants of the cars will be substantially unobstructed in three directions.

In the accompanying drawing which forms a part of this application. Figure 1 is a front elevation of my improved apparatus; Fig. 2 is an edge elevation of the same, and Figs. 3 and 4, are details of the rod connections preferably employed to facilitate the assembling of the frame of the apparatus.

Referring to the details of the drawing, A represents a circular platform which is rotatably supported on a central stud  $a^1$ , and on rollers  $b^2$  which are arranged under the platform near its periphery and journaled in hangers  $b^3$  secured to a base B. In the periphery of the platform are grooves  $a^3$  which are adapted to receive a cable  $a^4$  which may be driven by any suitable power and which in turn will rotate the platform. On the base is secured an annular rack  $b^4$  which meshes with and serves to drive a gear  $a^2$  which is suitably mounted on the platform A. Secured to the upper side of the platform is a standard composed of four parallel uprights or tubular rods C arranged in two pairs, which are spaced apart and connected at their top by a bearing  $c^1$  which receives the ends of the rods. The standard is braced by rods  $c^7$  which are secured to the bearing  $c^1$  and to the platform.

A shaft D is suitably journaled in the bearings  $c^4$ , and on this shaft is mounted the car supporting frame to be described, and the drive-wheel  $d^5$  by which power is directly applied to said frame. On the shaft are secured two hubs  $d^2$  from each of which extend radial sockets in which are secured the inner ends of radial tubular spokes  $d^1$ . On the outer ends of each spoke is secured an eye  $d^3$ . Connected with each of these eyes

by a bolt  $d^4$  are similar eyes  $d^3$  fixed on the inner ends of tubular rods  $d^2$ , the latter being arranged in the form of an equi-lateral triangle and having their outer ends connected together by bolts  $e^3$  to form the apexes of the triangles. Arranged on the bolts  $d^4$ ,  $e^3$ , are sleeves G which serve as spacers between the ends of the rods on one side of the frame and the corresponding rods on the opposite side.

It will be seen that the two frames constructed as above described and connected together by the bolts  $d^4$ ,  $e^3$ , form six-pointed stars each of which is made up of short tubular rods arranged to form a plurality of equi-lateral triangles, the members of which are rigidly connected. On each bolt  $e^3$  is hung a car E which may be of any desired construction. The combination between a car and bolt  $e^3$  is provided by a hanger consisting of an outwardly curved arm  $e^2$  and rods  $e^1$  which are rigidly secured to the arm and to the front and rear sides of the car respectively. The upper ends of the arms  $e^2$  are pivotally mounted in eyes  $f^1$  on the opposite ends of the truss-rods F. Each truss-rod is provided with a turn-buckle  $f^2$ , by which the length of the truss-rods may be adjusted so as to make them exactly uniform throughout the frame and to make the rods on one side correspond with those on the opposite side.

Secured to one side of the frame is a grooved pulley  $d^5$  of considerable diameter over which runs a cable  $d^7$  which also travels on and is driven by the sheave  $c^4$  on a shaft  $c^3$  which is suitably journaled on the standards C. On said shaft is loosely mounted a gear  $c^2$  which meshes with and is driven by the gear  $a^2$  heretofore referred to. On the shaft  $c^3$  is splined one member of a clutch  $c^5$ , the co-acting member of which is fast on the gear  $c^2$ . A clutch lever  $c^6$  is connected with the splined member and serves to throw it into and out of engagement with the gear member, all in a usual and well known manner in power transmission.

The cars F are preferably arranged so that the occupants will sit with their faces toward the sides of the apparatus, thus permitting a view in front, rearwardly toward the other car and at the side away from the axis of the frame.

It will be apparent that in an apparatus constructed as described, any tendency of a car to swing outwardly either through the efforts of its occupants or through centrifugal action will be resisted by the two rods F connected with the hanger of such car, the hangers of the cars on the opposite ends of said rods and in fact all the other rods, hangers and cars on the frame. This resistance, coupled with the incidental friction, it is believed will be sufficient to overcome the centrifugal force applied to the cars even if the frame should be driven at a high speed. It will be also ap-

parent that by withdrawing the bolts  $e^3$ ,  $e^4$ , and the sleeves on same, the frames may be quickly dismembered and the parts packed into a relatively small space for shipment.

- 5 In operation, the platform A will be kept revolving slowly, but passengers will be permitted to enter and leave the respective cars when they are nearest the platform by stopping the rotation of the star-shaped frame which will be accomplished by throwing the  
10 clutch members out of engagement.

Having thus described my invention, what I claim is:—

1. In an amusement apparatus of the class described, a rotatably mounted platform, a standard secured to and supported by said platform, a car supporting frame rev-  
15 olubly mounted on said standard, said frame consisting of tubular sections arranged to form a plurality of interconnected triangles and the whole to form a star-shaped

frame, cars suspended by hangers from the points of said frame and means for connecting together the hangers of  
20 said cars, whereby any swinging motion of one car will be resisted by the other cars, substantially in the manner and for the purpose set forth.

2. In an amusement apparatus, a platform, a standard secured to the platform, a car-supporting structure com-  
25 posed of two star-shaped frames connected together with a space therebetween in which the cars swing, each of said frames composed of short sections detachably connected together, said structure revolubly mounted on said stand-  
30 ard, hangers pivotally connected with said frames, cars rigidly connected with said hangers, adjustable rods connecting the hangers together as described, and means for driving said star-shaped structure.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER B. THOMAS.

Witnesses:

F. BENJAMIN,  
WM. B. MOORE.