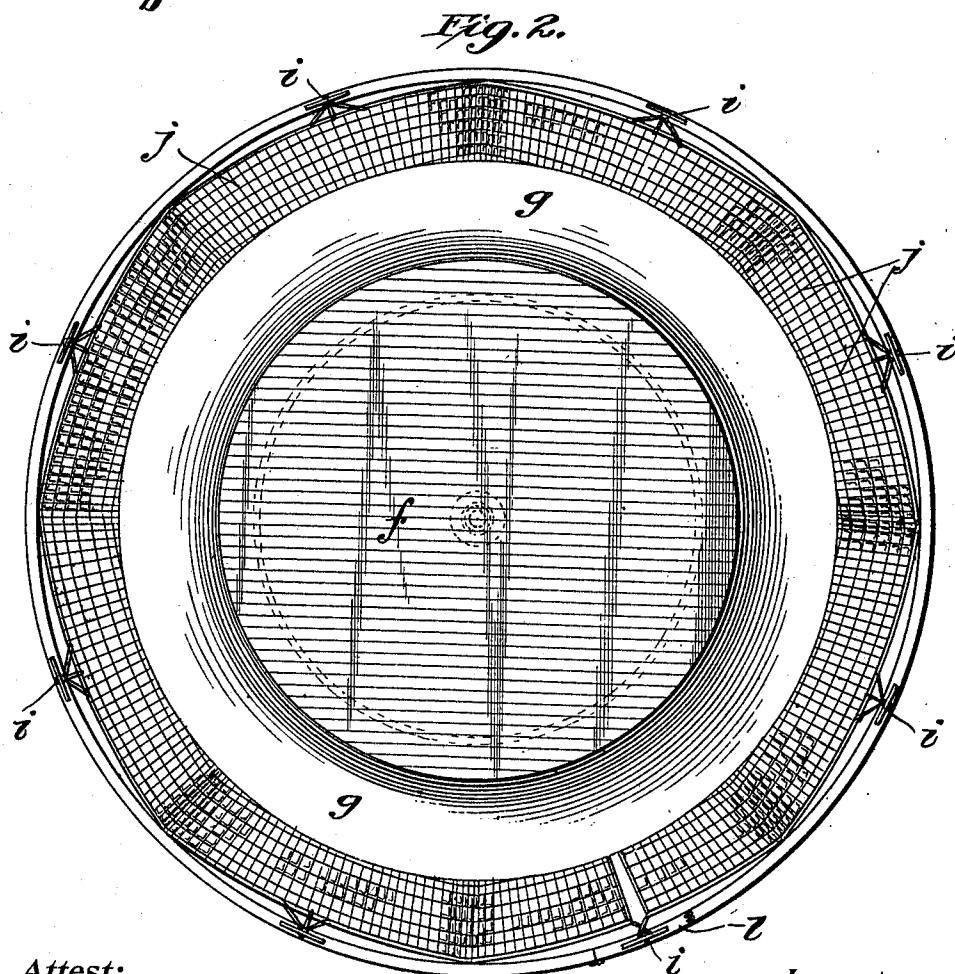
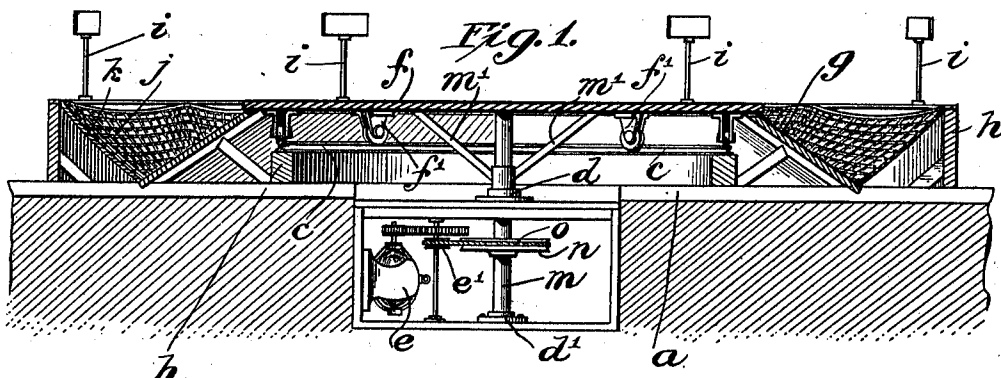


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AMUSEMENT APPARATUS.
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Patented May 23, 1911.



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UNITED STATES PATENT OFFICE.

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AMUSEMENT APPARATUS.

992,999.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE C. TILYU, a citizen of the United States, residing at the borough of Brooklyn, in the city of New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Amusement Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings, which form a part thereof.

My invention relates to amusement apparatus and more particularly to that class thereof pertaining to roundabouts.

The main object of my invention is to provide an amusement apparatus of this character wherein the essential characteristic will be to afford amusement to the users of the device by providing a platform adapted to be occupied by one or more people, and which in operation will develop sufficient centrifugal force to render it difficult if not impossible for the occupant or occupants to maintain their position thereon, and at the same time provide means upon which the users may land and which will prevent their being injured, when thrown from the platform.

A further object is to provide a device of this character wherein the platform will be free from any obstructions or appurtenances which would enable any occupants by seizing same, to retain their position upon the platform.

A still further object is to provide a device having a rotary platform as above referred to, with means whereby, as the occupants are thrown from the platform, they will be permitted to gradually descend to a lower level, thus not only leaving a clear field adjacent to the edge of the platform but preventing their falling in a direct line for a sufficient distance to endanger life or limb.

A still further object is to provide a device of this character wherein, as the occupants complete their descent, they will contact with a soft buffer which will not only protect them from falling against hard surfaces, but will cause them to stay substantially at the place where they alight.

A still further object is to provide a rotary platform having a center or point wherein centrifugal force will have substantially no effect; thus tending to create additional amusement by reason of the efforts of numerous occupants to attain this single point of safety; and at the same time oc-

casional such a variance in the effect of the centrifugal force upon the occupants as to cause those upon different parts of the platform to move substantially radially of the platform with varying degrees of velocity.

A still further object is to provide a device wherein the landing point may be capable of division into predetermined sections, in a manner to permit the distribution of prizes to those occupants who can, by the exercise of skill, cause themselves to be projected into certain of these sections; thus providing additional amusement through the effects of the centrifugal action about the periphery of the platform which will be such as to impart a tangential projection instead of a directly radial one, thus making it extremely difficult, owing to the variance of the velocity of movement at different points of a single radius of the platform, to accurately gauge either the peripheral travel of the platform, or the extent of such tangential projection.

A still further object is to provide convenient means for access to and egress from, the apparatus. And a still further object is to provide a device of this character wherein the various parts will be so associated and assembled as to avoid the presence either on, or adjacent to the apparatus, of such openings in, or oscillations of the platform, as would permit the hands, feet or apparel of the occupants to be endangered or crushed.

The invention consists primarily in the combination of a platform, means whereby said platform may be rotated and means adjacent to the edge of said platform whereby occupants may be expelled from said platform through centrifugal force without likelihood of being injured; and in such other novel features of construction and combination of parts as are hereinafter set forth and described and more particularly pointed out in the claims hereto appended.

Referring to the drawings: Figure 1 is a vertical section of an amusement apparatus embodying my invention, and Fig. 2 is a plan view of the said apparatus.

Like letters refer to like parts in both of said views.

In the embodiment of my invention shown in the drawings, *a* indicates a flooring or foundation upon which is mounted a circular sleeper *b* having secured thereto in any desired manner, an ordinary headed rail *c*. Centrally of the sleeper *b* and the rail *c*, is a

vertical bearing *d*, beneath which is a machinery well. Within said well is situated the driving mechanism for the apparatus, as the motor and gear transmission *e*. Mounted upon the track *c* is a platform *f* which preferably is made of highly polished hard wood, as maple, presenting upwardly a perfectly plane, smooth surface. This platform is preferably in the form of a disk, and in practice, I find that I can secure high efficiency and perfect safety by making it approximately twenty feet in diameter. To avoid any such radial movement of said disk as to cause it to rotate out of true by the springing of the driving shaft, or any other reason, I provide it on its under side, with a plurality of pendant brackets carrying respectively a flanged roller *f'* which is adapted to run upon the rail *c*. The number of these rollers is largely a matter of choice and will vary with the diameter of the disk.

Encircling and inclosing the sleeper *b* and track *c*, is an inclined slide *g* extending from the foundation or flooring, or other landing, *a* to a point beneath and contiguous to the edge of the platform *f*. This incline or slide terminates at a point slightly within the edge of said platform, but in such close proximity thereto as to leave insufficient space for the insertion of a finger, or the entanglement of the wearing apparel of an occupant of the apparatus. This incline is also made of hard wood, highly polished, and to avoid accidents, presents a continuous surface. The pitch of the incline should be such as to cause a person thereon to move rapidly from the periphery of the platform *f*, while at the same time preventing a movement sufficiently rapid to result in injury. In the drawings, I have shown the pitch as being from 25 to 30 degrees, which is approximately that used. The height of the platform *f* will control the pitch of this inclined slide, and that pitch above referred to is as used in an apparatus in which the height of the platform is substantially thirty inches. The incline *g* may be supported and braced in any desired manner, a merely conventional showing of such supporting structure being made in the drawings.

Encircling the inclined slide *g* is a suitable inclosure *h*, which may take the form of a rail or a fence as desired. This inclosure serves to exclude the public from the apparatus while it is in operation, as well as to support a plurality of signs as *i* positioned thereabouts and bearing numbers or other insignia which may serve as a basis for the distribution of prizes, as will more fully appear hereinafter.

To avoid any possibility of a person being injured by contacting with a hard surface at the bottom of the incline *g*, I provide a soft buffer surface at that point, which preferably

takes the form of a net *j* stretched from the bottom of the said incline to the top of the inclosure *h*, in a manner to completely encircle the said incline and form a yielding surface above the edge of the same. When this net is employed as a landing buffer, I form it into a plurality of pockets by means of ropes *k*, stretched thereunder in a manner to permit the said net to sag between said ropes to form such a pocket forwardly of each sign *i*. I preferably employ ropes as such possess sufficient elasticity to give under the impact of a person therewith, thus avoiding injury through the person striking one of these partitions.

To permit ingress to, and egress from, the platform *f* I provide the inclosure *h* with a suitable gate *l* at any point thereof, and bring the ends of the net *j* opposite this opening and unite them by any desired temporary lacing.

The platform *f* may be rotated in any desired manner, but I preferably employ a vertical shaft *m* suitably secured centrally of said disk and having laterally extended braces *m'* attached thereto and to the disk for the purpose of adding stability to the structure. This shaft is mounted in the bearing *d*, and has its lower end mounted in a thrust bearing *d'* within the machinery well heretofore referred to. Mounted on this shaft is a pulley *n* about which and a pulley *e'*, a rope *o* is passed. I preferably employ a pulley and rope drive, as such avoids the grinding of the gearing and the resultant noises which might tend to induce in occupants, fear as to the safety of the device. In addition to this, a driving mechanism of this description permits slippage in starting the device, thus avoiding the jolts incidental to starting with a direct gear drive. Various other mechanical expedients might be employed to accomplish this same result, however, and consequently it is not my intention to make any claim to the particular form of driving mechanism employed.

The operation of the apparatus herein described, is substantially as follows, it being assumed that the apparatus is at rest. To permit access to the platform *f*, the gate *l* is opened and the ends of the net *j* separated sufficiently to permit people to pass from a point outside of the railing or fence *h* to the incline *g* and up said incline to said platform. When the number of occupants upon the platform is such as may be desired to justify the start of the apparatus, the said gate *l* is closed and the ends of the net *j* are again brought together to present an uninterrupted soft landing point at the foot of all points of the circular incline *g*. The various occupants, being seated or lying upon the said platform, power is applied to the shaft *m*, and the said platform is ro-

tated with a gradual increase in its rate of speed. The effect of this rotation upon the occupants will vary with their location relative to the center of said platform, which center is directly above the shaft *m*. The rotation of the platform will develop sufficient centrifugal force ranging from an absolutely neutral point at the center of the platform to a gradually increased force toward the periphery thereof to cause the occupants to remain stationary or travel along any radius of said platform until they are expelled therefrom. This mode of operation provides on the platform a point of safety whereon a person may remain indefinitely provided the other occupants will permit him to. One object of the users or occupants being to prevent themselves from being thrown or expelled from said platform, it will be seen that considerable competition will arise from the desire of each occupant to attain this vantage point. As a further inducement to competition, I offer prizes, such as a ticket for a second attempt upon this device, to any persons who can cause themselves to be projected from any particular point of the platform in a manner to be deposited in one of the pockets of the net *j*, at a point thereof designated by a particular sign *i*. As the speed of rotation increases, the occupants nearest the periphery of the platform *f* are projected radially thereof, through centrifugal action, and as said platform is highly polished and presents no obstructions, the movement while more or less slow, is continuous and irresistible. The nearer the occupants approach the edge of the platform, the greater is the effect of this force upon them, and finally they are thrown from the platform upon a point of the inclined slide *g* adjacent thereto. The drop from said platform to said incline or slide is so small as not to be attended by any likelihood of injury to the person, and the descent under gravity down said incline *g* will not develop sufficient velocity to cause injury to the person providing the landing point is sufficiently soft to absorb the shock of the impact therewith. The net *j* will serve to effectively absorb any such shocks, although other devices may be found necessary in order to withstand the great wear to which the apparatus is subjected at this point. As each occupant is deposited upon the said resilient landing, he or she may arise and walk about the foot of the incline to the point of egress, or if desired, may vault over the fence or railing *h*. After a given period of operation, or upon the expulsion of all of the occupants, the driving mechanism is stopped and the platform again brought to rest to permit the egress of the previous occupants and the re-loading of the platform.

The device heretofore described affords great amusement, not only to the occupants, but to the on-lookers. The competition to attain the point of safety at the center of rotation of the platform, results, under most circumstances, in the ultimate expulsion of all competitors, as instantly upon the slightest departure from the center, an occupant gradually moves away therefrom at a very slow rate of speed, but with irresistible force, and the efforts of others to restrain such movement only leads to their passing from said center, and both or all of them passing along a line of the platform having a general radial direction and upon the incline in the manner heretofore described.

The supports of the platform adjacent to its periphery prevent any overbalancing thereof, or any side oscillations; and the absence of a space between the platform and the incline prevents persons from grasping the edge of the incline, or from getting their fingers crushed in the effort to do so. It also prevents the wearing apparel of the occupants being caught between said platform and said incline.

I have adopted the plan of giving prizes to those occupants who can cause themselves to be projected adjacent to any particular sign, to stimulate the efforts on the part of all of the occupants to be projected at the same point because of the amusement afforded by their efforts to remain upon the platform for this purpose, and a substantially general inability to anticipate or gage the tangential movement resulting from the projections of the occupants from the periphery of said platform. This is such as to make it practically impossible for a person to reach the desired goal except through accident, or allowing for an approximation of such tangential movement. I also provide a number of such signs in order to create confusion.

It has been found in the operation of the device, that although the occupants in starting may sit upright, the centrifugal force developed will first cause them to lie at full length and then slide along the surface of the said platform, notwithstanding all their efforts to remain thereon. I have also found that the absence of any means preventing the occupation of the platform at its center of rotation materially increases the amusement afforded.

It is not my intention to limit the invention to the precise details of construction shown in the accompanying drawings, such being largely a matter of choice or expediency.

I believe it to be broadly new to provide in a structure of this character, a rotary platform and means rotating same in a manner to develop centrifugal force sufficient to ex-

pel the occupants therefrom, together with means about the periphery of the platform to receive the occupants as they are expelled in a manner to avoid injuring them, and I intend to claim such broadly.

Having described the invention, what I claim as new and desire to have protected by Letters Patent is:—

1. In an amusement apparatus, the combination of a platform, means whereby said platform may be rotated, a landing below said platform, and an inclined slide extending from a point adjacent to said platform to said landing.

2. In an amusement apparatus, the combination of a platform, means whereby said platform may be rotated, a landing having a soft buffer surface, and an inclined slide extending from a point adjacent to said platform to said landing.

3. In an amusement apparatus, the combination of a platform, means whereby said platform may be rotated, a landing, an inclined slide extending from a point adjacent to said platform to said landing, a net extending about and terminating adjacent to, the bottom of said incline, means supporting and spreading the top of said net, and means whereby said net and its supports may be opened to permit ingress to and egress from the apparatus.

4. In an amusement apparatus, the combination of a platform, means whereby said platform may be rotated, a landing, an inclined slide extending from a point adjacent to said platform to said landing, a net ex-

tending about, and terminating adjacent to, the bottom of said incline, means supporting and spreading the top of said net, a plurality of ropes stretched beneath said net whereby the latter is divided into a plurality of pockets, signs distinguishing said pockets from each other, disposed about said net, and means whereby said net and its supports may be opened to permit ingress to, and egress from the apparatus.

5. In an amusement apparatus, the combination of a circular platform presenting upwardly a smooth, plane surface, means whereby said platform is driven with its center as the center of rotation whereby a neutral point is provided thereon, a landing below said platform and an inclined slide extending from said landing to a point within the periphery of said platform and beneath and adjacent thereto.

6. In an amusement apparatus, the combination of a circular track, a circular platform having pendant therefrom a plurality of wheels adapted to run on said track, a driving shaft centrally of said platform, means whereby said shaft may be driven, a landing about and below said platform, and an inclined slide extending from a point adjacent to said platform to said landing.

In witness whereof, I have hereunto affixed my signature, this 25th day of April, 1907, in the presence of two witnesses.

GEO. C. TILYU.

Witnesses:

ARTHUR L. LEE,
J. MICHEL.