J. D'ERRICO.

CAROUSEL.

APPLICATION FILED FEB. 16, 1918.

1,280,679.

Patented Oct. 8, 1918.

3 SHEETS—SHEET 1.

Fig. 1.

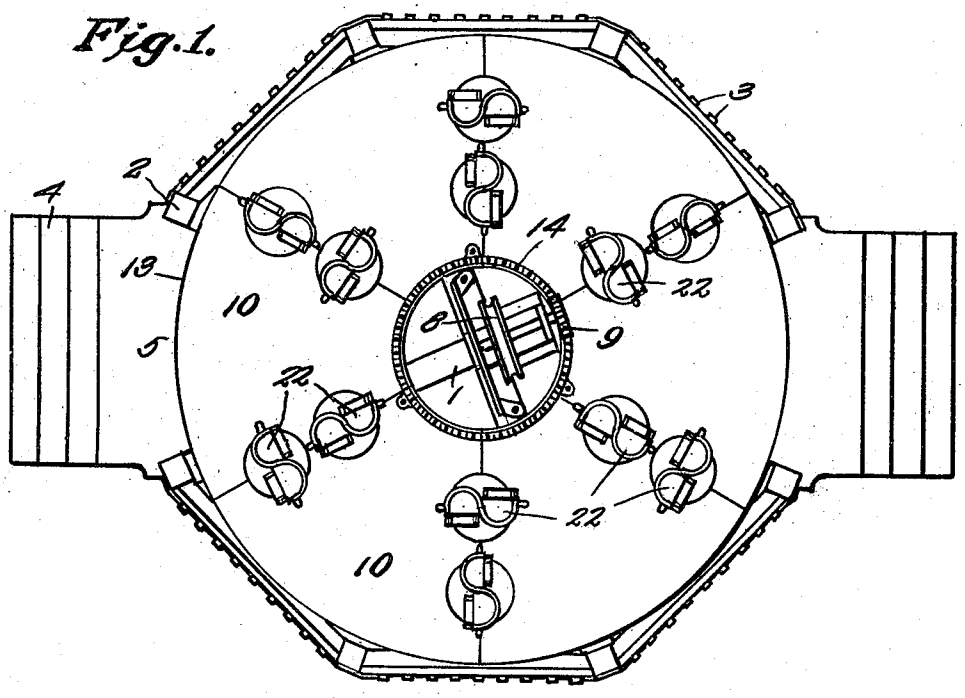
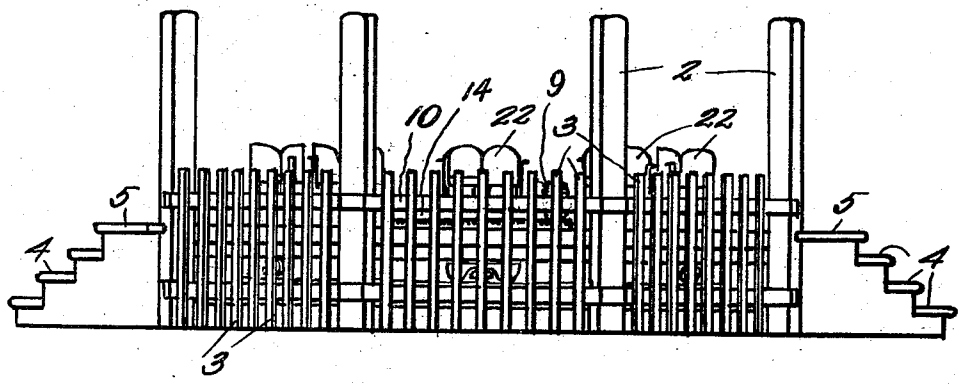


Fig. 2.



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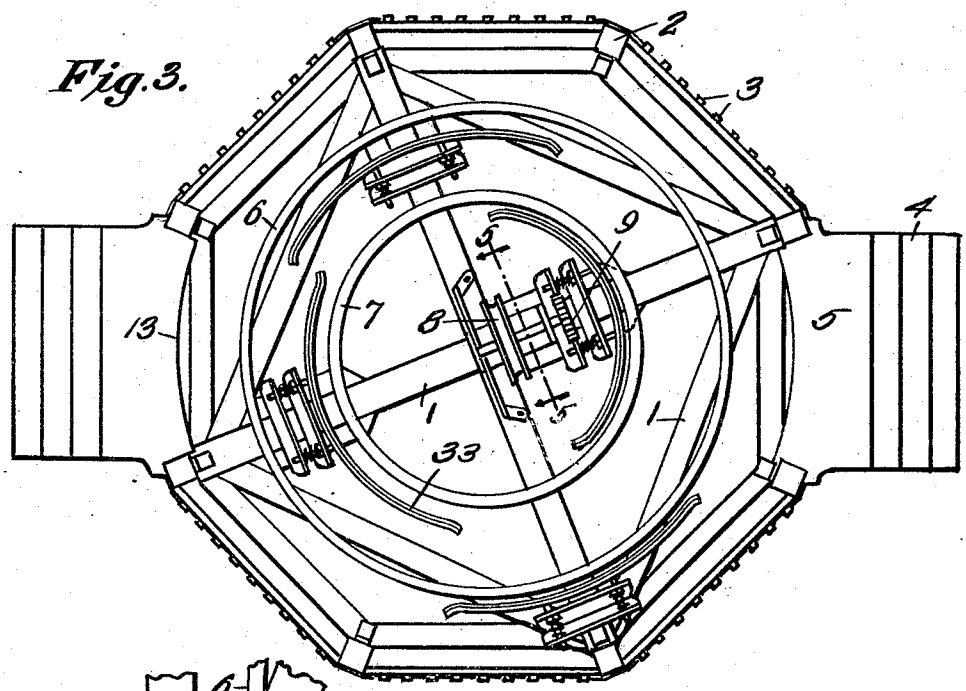
3 SHEETS—SHEET 2.

Fig. 3.



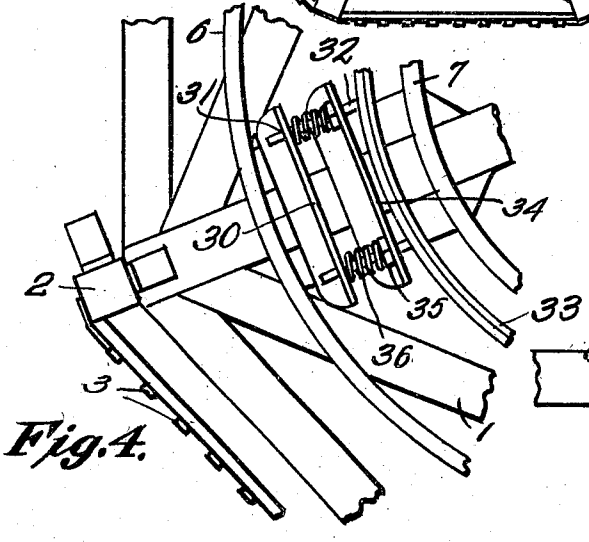


Fig. 4.

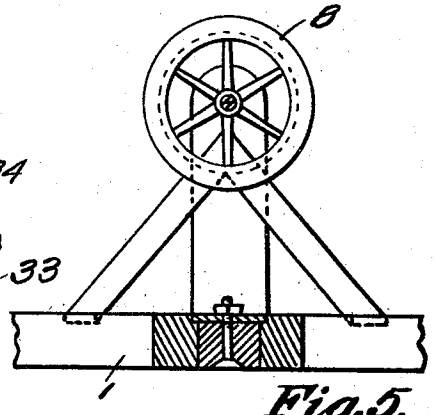


Fig. 5.

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3 SHEETS—SHEET 3.

Fig. 6.

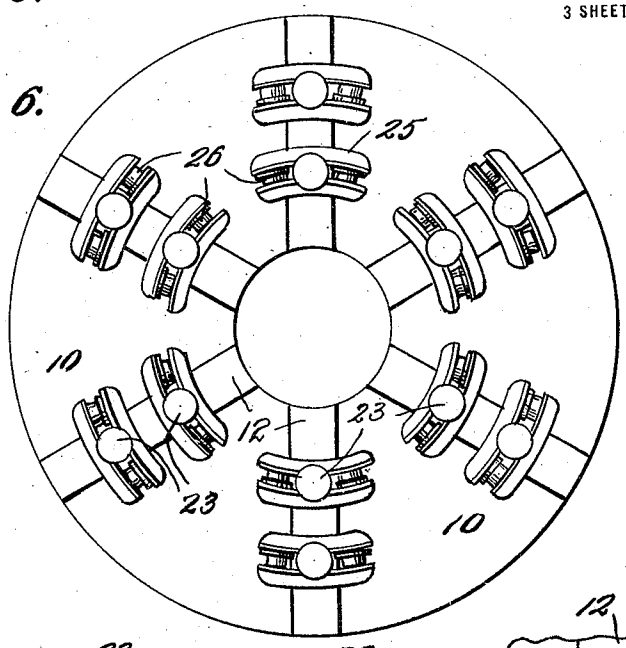


Fig. 7.

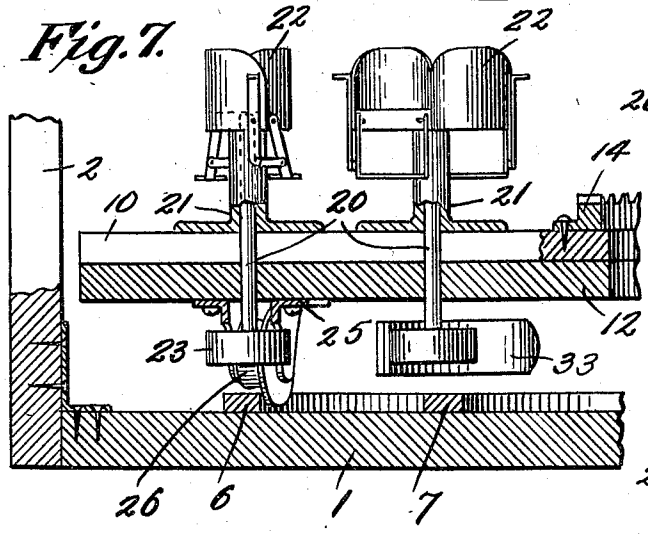


Fig. 8.

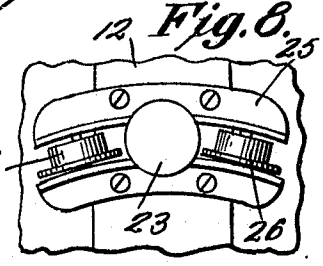
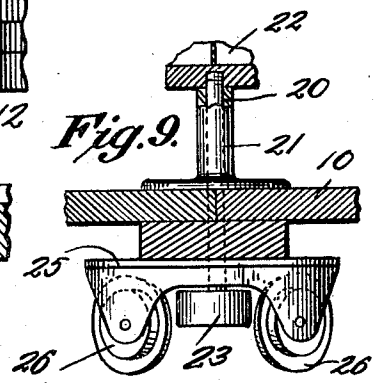


Fig. 9.



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UNITED STATES PATENT OFFICE.

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CAROUSEL.

1,280,679. Specification of Letters Patent. Patented Oct. 8, 1918.

Application filed February 16, 1918. Serial No. 217,636.

To all whom it may concern:

Be it known that I, JOHN D'ERRICO, a subject of the King of Italy, residing at Coney Island, in the county of Kings and State of New York, have invented certain new and useful Improvements in Carousels, of which the following is a specification.

This invention relates to games and toys, and more especially to roundabouts; and its object is to produce an improved carousel for use in parks and other amusement places.

Specifically the motion brought about as applied to each unit is a compound one, the unit revolving with the platform around a common center and rotating intermittently on its own axis. Details of construction whereby this is brought about are to be found in the following specification, and in the drawings, wherein:—

Figure 1 is a plan view and

Fig. 2 a side elevation of this device complete,

Fig. 3 is a plan view of base portion, with the platform removed,

Fig. 4 is an enlarged detail in plan view of a portion of said base,

Fig. 5 is a sectional detail on the line 5—5 of Fig. 3,

Fig. 6 is a bottom plan view of the platform,

Fig. 7 is a sectional detail through the platform and base and two of the units,

Fig. 8 is an enlarged bottom plan view of one of the carriages, and

Fig. 9 is a sectional detail of the carriage, showing how it is mounted beneath the platform.

The base 1 is by preference a skeleton structure made up of beams crossing and secured to each other in about the form seen in Fig. 3. Posts 2 rise from the base at intervals and are connected by fence panels 3, and at appropriate points the panels are omitted and steps 4 lead upward to platforms 5. It will be understood that I have illustrated a small type of this invention, but in popular places of amusement it could be built on a much larger scale. I would not, therefore, be limited to the details herein described, and doubtless there should be more entrances and larger platforms, preferably with attendants to admit patrons at one side and to permit them to pass out at the other. Upon the base are fixedly mounted concentric tracks or rails 6 and 7, and at the center of the smaller rail is disposed the driving wheel 8 whose shaft carries a gear 9. This power mechanism may be driven from any suitable source and I have shown the wheel 8 as grooved on its periphery so as to receive a belt which may come up from beneath or down from above although, of course, if the apparatus is built on a sufficiently large scale the same may be driven by means of an electric motor fixed on the base within the inner rail in a manner not necessary to amplify further. I do not wish to be limited in this respect nor as to any details excepting as brought out in the appended claims.

The numeral 10 designates a circular platform having a hole 11 at its center through which the power mechanism is disposed as seen in Fig. 1, and this platform is preferably held in place by underlying arms 12 as best seen in Figs. 6 and 7. The platform should be of a size to rotate freely within the space inclosed by the posts 2 and panels 3, and it may be well to cut out the smaller platform or approaches 5 on curved lines 13 as seen in Fig. 3, so that the edge of the platform will travel quite close thereto and no person could possibly get his or her foot between. If the form of driving mechanism above suggested is employed, a gear ring 14 will be fastened on the platform around the central hole 11 therein and its teeth will mesh with those on the gear 9 so that as the latter rotates the platform will revolve in a manner which will be clear. Doubtless the entire gear ring and driving mechanism will be housed in a central upstanding cylinder mounted on the platform and rotated thereby as usual, but I have not thought it necessary to illustrate this detail. Possibly also the upper ends of the posts 2 may support a roof or canopy, but this detail and others need not be gone into here.

While not wishing to be limited thereto, the units in the present instance are shown in the form of tête-à-tête chairs, whereof each pair is supported on an upright shaft 20 rotatably mounted through a standard 21 carried on the platform 10. The chairs 22 could, however, be replaced by other seats or figures for carrying the patrons, and I wish the term "unit" to have the broadest possible application in this respect. The shaft 20 extends down through the platform and one of the arms 12 and carries at its lower end a roller 23 standing in a horizontal plane as seen in Fig. 7. Fig. 8 shows a carriage 25 whose frame is secured to the

arm 12 astride the shaft, and rotatably mounted in the frame is a pair of flanged wheels 26 standing on opposite sides of the roller and depending below the same so that they may travel on one of the rails, while the roller moves in a plane above said rails. I have shown the latter as quite flat, and if so made the units will not rise and fall as the platform rotates, yet, it is possible to have one ring of units impelled to more vigorous motions than another, and those patrons who wish can make use of this ring, while others may think the motion imparted by the details yet to be described to be sufficient.

On certain of the arms 12 of the base are mounted upstanding plates 30 having guide openings 31 through which pass rods 32 whereof each pair carries a cam or curved section of track 33. The rods pass through another plate 34 adjustable thereon by means of nuts 35 and the two plates are held normally spaced by means of springs 36. Each cam 33 stands normally adjacent a rail as that numbered 7 in Fig. 4, and it will be seen from Fig. 3 that there are cams at different points outside and inside the outside rail 6, and also outside and inside the inner rail 7. The units are so disposed on the platform that their flanged wheels 26 travel on the rails provided for them, and their contact or friction rollers 23 are adapted at one point around the center to contact with one of the cams 33. This causes an appropriate movement of the rods 32 and compression of the springs 36, with the result that the cam is held in frictional contact with the periphery of the roller 23 and the shaft 20 and seat 22 are turned on an individual upright axis in addition to the general rotary movement of the platform. How rapidly this individual rotation will take place depends upon the speed of rotation of the platform and the size of the roller 23, but it is obvious that a couple sitting in the chairs 22 and facing one way will be automatically turned at one point during the rotation of the apparatus so that they will face another way, while yet always facing each other if the chairs be of the tête-à-tête type as shown. This general principle can, of course, be applied to units of other forms, vigorously or gently, at one or more points within the rotation of the platform. The movements of individual units are entirely automatic, and need no attention on the part of the operator. The mechanical structures are simple, inexpensive, and not likely to get out of order.

What is claimed as new is:—

1. In a carousel, the combination with a platform, and means for rotating it above a fixed base; of a shaft rotatably mounted in the platform, a roller on its lower end, a cam with which said roller coacts, rods projecting from the rear face of said cam, a plate having guide openings through which said rods pass, nuts adjustably mounted on the rods, and springs between said nuts and plate, for the purpose set forth.

2. In a carousel, the combination with a platform, and means for rotating it above a fixed base; of a circular track on the base, a shaft rotatably mounted in the platform, a carriage beneath the latter having wheels traveling on said track, the shaft projecting through said carriage, a roller on its lower end, a cam adjacent the rail with which said roller coacts, rods projecting from the rear face of said cam, a plate having guide openings through which said rods pass, stops adjustably mounted on the rods, and springs between said stops and plate, for the purpose set forth.

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

JOHN D'ERRICO.

Witnesses:
ALFRED HINZER,
NICK A. JESANNIDES.