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2,586,333

ROTATING AMUSEMENT CYLINDER

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Fig. 2.

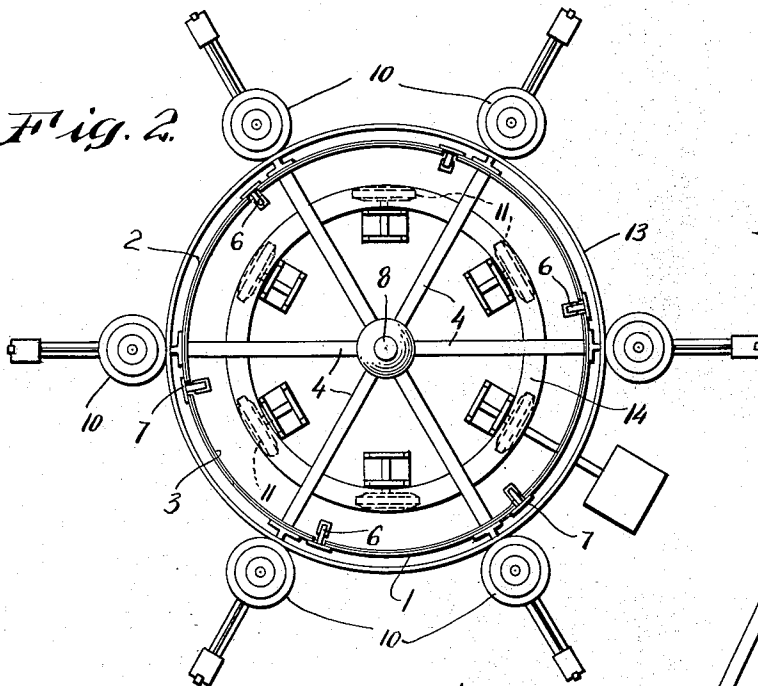


Fig. 3.

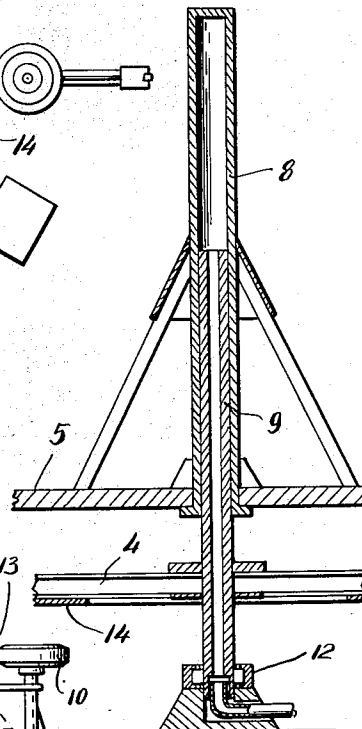
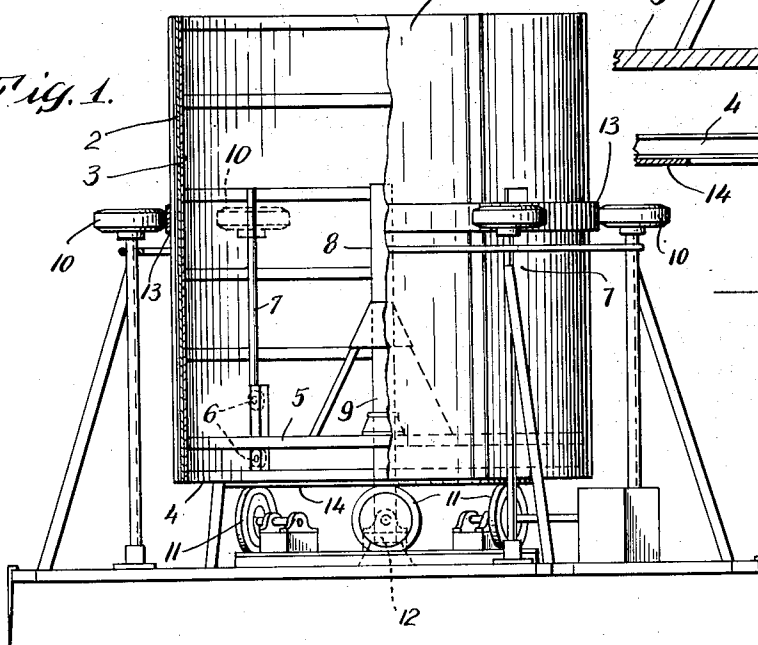


Fig. 1.



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ROTATING AMUSEMENT CYLINDER

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3 Claims. (Cl. 272-46)

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This invention relates to improvements in apparatus intended for amusement purposes.

An apparatus for amusement purposes, consisting of a cylinder closed at its top and bottom and adapted to be set in rotation about its longitudinal axis, is already known. Persons standing inside the cylinder on the bottom surface of the same, are forced against the side wall of the cylinder and are held there, fast, by the centrifugal force occurring during the rotation of the cylinder.

In contradistinction, however, to the above mentioned known apparatus, the rotating cylinder according to the present invention is provided with means whereby persons, in the cylinder, are maintained above the level of the bottom extremity of the cylinder before rotation commences. As soon as the cylinder is rotated, however, the said persons are forced, by centrifugal force, against the vertical inner side wall of the cylinder, above the bottom extremity thereof, and can move freely thereon without the risk of falling towards the said bottom extremity.

To this end and further according to the invention, the rotating cylinder which is open at its top and bottom extremities, is provided with a bottom surface in the form of a platform which can be moved in directions axially of the cylinder being disposed therein with its general plane at right angles to the longitudinal axis of the cylinder and being adapted to follow the rotating movement of the inner wall of the cylinder so as to rotate with it at the same speed. Before the cylinder is set in motion, the platform is slightly raised, and several persons stand on it, who may have entered the cylinder from the open top, for instance by means of a removable stairway. Thereupon the cylinder and the platform are rotated. When the said persons have reached, as the result of the centrifugal force due to the rotation of the cylinder, the inner wall of the cylinder which is provided with a coating favouring adhesion, and which may, for example, be covered with rubber, leather, or the like, and when the necessary centrifugal force has been obtained, the platform is lowered with the result that the persons then remain, during the rotation of the cylinder, adhering against the vertical side wall upon which they can then move and, for example, turn themselves in such a way that their heads point downwards, without there being any danger of their falling back onto the platform.

As an alternative to raising and lowering the platform, retaining members, for example fold-

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ing seats or handles, may be disposed slightly above the base of the cylinder (which is closed, at least, at its bottom extremity in this case) on its inner wall, to serve as supporting means upon which the persons may sit or support themselves, while the cylinder is at rest. As soon as the cylinder turns, they can let go of these supports.

In order to permit the most rapid possible starting-up and breaking of the apparatus, it is convenient to make the rotating cylinder of light structural material. Duralumin and/or plywood have, for example, been found advantageous for this purpose.

The rotating cylinder provides amusement not only for the persons contained in it, but also for the spectators looking in from above, who enjoy the comical movements and bodily distortions of the persons adhering freely to the vertical wall. The apparatus can also be used for gymnastic and artistic performances.

The invention will be fully understood from the following description taken in connection with the accompanying drawings which illustrate one embodiment of the invention and in which:

Figure 1 illustrates the apparatus in elevation, the wall of the cylinder being only, in part, indicated;

Figure 2 illustrates the cylinder in plan view, the platform being removed; and Figure 3 is a diagrammatical section on a larger scale of the central part of the apparatus.

The rotating cylinder 1 comprises a wall 2, bearing a layer of rubber (or a layer of leather) 3, and an open supporting base 4, disposed at the lower extremity of the cylinder. The layer of rubber or the layer of leather can, conveniently, be arranged to act as padding. Above the supporting base 4, is disposed a platform 5 which as stated hereinbefore, rotates with the cylinder and slides within it by means of guide rollers 6 and the rails 7 built into the walls 2. The platform 5 is mounted on a hydraulic elevating cylinder 8 (best seen in Fig. 3) the cooperating pressure piston 9 of which rests in a bearing 12 whereby it acts as a means for centering the cylinder 1 and at the same time, serves as an axle for the cylinder 1 and the platform 5 so that the cylinder 1, the platform 5, the hydraulic cylinder 8 and the piston 9 will rotate together. Around the outer periphery of the rotating cylinder 1, there are arranged a number of wheels 10 provided with pneumatic tires, which are rotatably mounted on axles and which serve

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to guide the track 13; on the base of the apparatus there are mounted a number of wheels 11 also provided with pneumatic tires, which are rotatably mounted on axles and over which moves the track 14 which is mounted on the supporting base 4 of the cylinder. One of the wheels 10 or 11 is connected to a driving means, for example an electric motor 15 and, by its rotation, the cylinder 1 is rotated. Owing to the guidance of the cylinder by means of the wheels 10 and 11 with pneumatic tires, smooth and jerk-free running is ensured. In addition, the effect of any irregularities in the tracks 13 and 14 is smoothed out by the resilience of the said tires.

The platform 5 is raised and lowered by a hydraulic drive, for which the elevating cylinder 8 and pressure piston 9 are provided. However, any other suitable mechanical drive may be used for the purpose, for example a drive consisting of racks and pinions or a windlass and cable arrangement.

What I claim as my invention and desire to secure by Letters Patent of the United States is:

1. An apparatus for amusement purposes comprising an upright cylinder rotatable about its axis and having an opening through which a person may enter it, means for rotating said cylinder, a support movable within said cylinder, but connected to it for common rotation, to sup-

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port said person above the bottom end of said cylinder prior to the rotation of said cylinder, and means for removing said support from supporting position during the rotation.

2. An apparatus as claimed in claim 1, said cylinder including an inner surface lining of high frictional quality.

3. An apparatus for amusement purposes comprising an upright cylinder rotatable about its axis and having an opening through which a person may enter it, means to rotate said cylinder, an axially movable platform interiorly of and rotating together with said cylinder to support said person above the bottom end of said cylinder prior to its rotation, and means to shift said platform in the axial direction during the rotation.

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