Nov. 6, 1934. H. ROUENVILLE 1,979,844

AMUSEMENT DEVICE

Filed Oct. 3, 1933 2 Sheets-Sheet 1

Fig. 1.

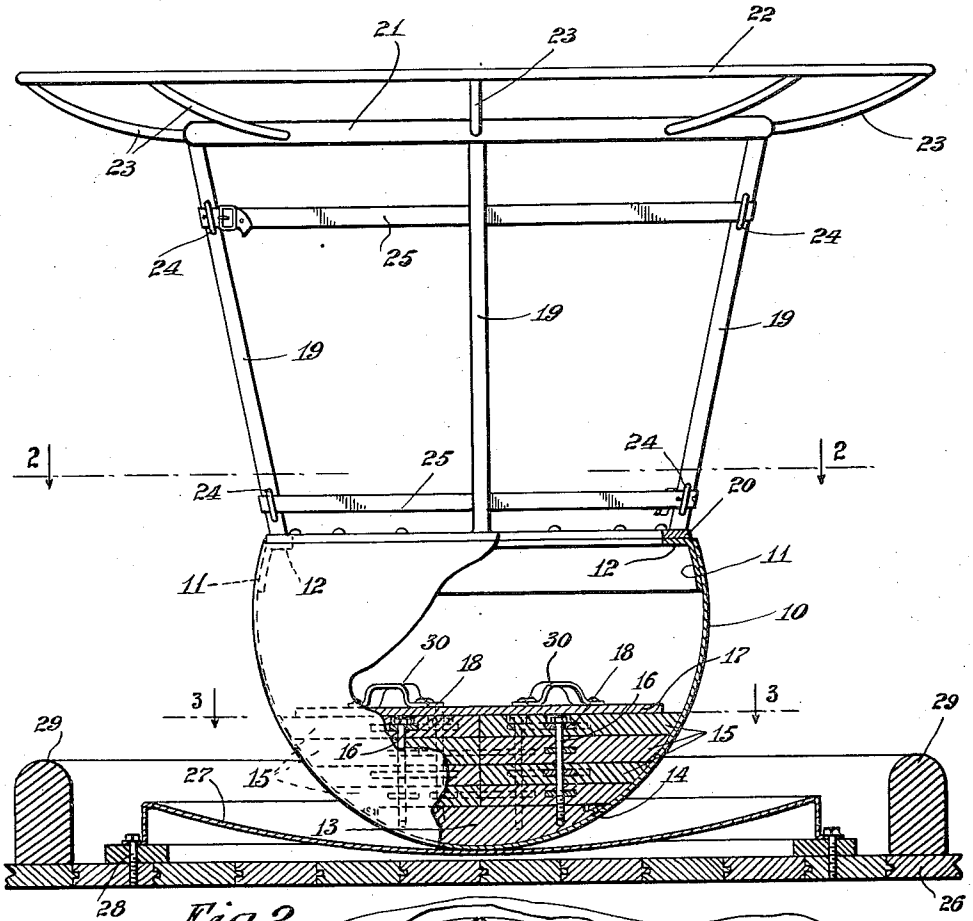
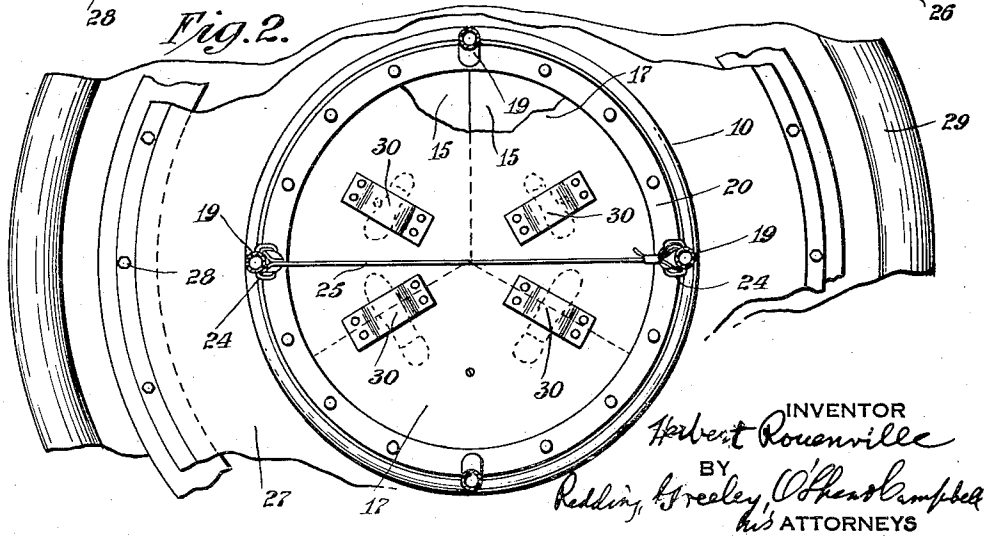



Fig. 2.




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Fig. 3.

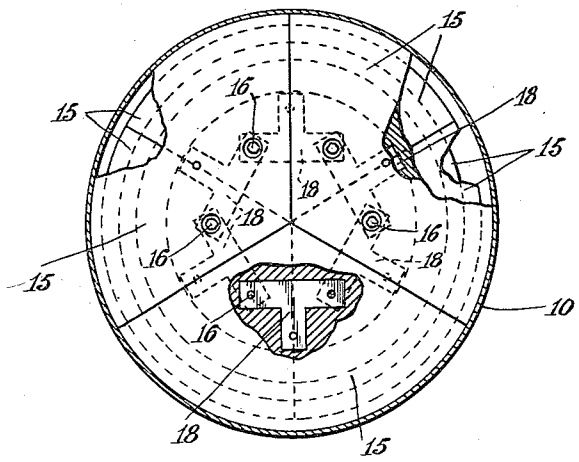



Fig. 4.

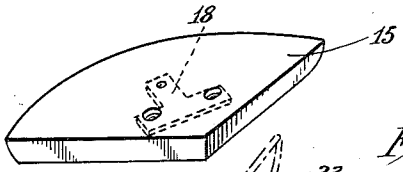
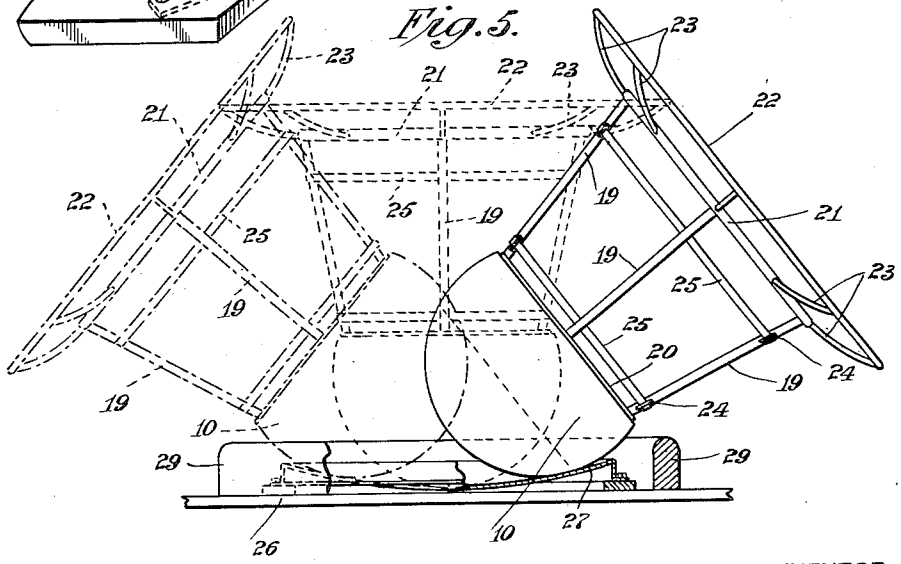



Fig. 5.




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# UNITED STATES PATENT OFFICE

1,979,844

## AMUSEMENT DEVICE

Herbert Rouenville, Copenhagen, Denmark

Application October 3, 1933, Serial No. 692,007
In Denmark December 1, 1932

5 Claims. (Cl. 272—1)

The present invention relates to amusement devices and embodies more specifically an improved form of amusement device wherein the force of gravity is utilized to maintain the device in a normal position. The movement of the device into positions other than its normal position, and against the force of gravity, constitutes the exercising or amusing act to be performed upon the device in the operation thereof. More particularly, the invention embodies a device which is normally maintained in an upright position by the force of gravity, the device being so constructed that it will assume such upright position from any position above horizontal to which it has been moved. The movement of the device from a position other than upright to its upright position is accompanied by a degree of rocking until it has reached its position of repose, similar in nature to the oscillations of a pendulum in assuming its normal position of repose.

The principle upon which the present invention is based has been utilized in many devices and, of course, is quite old. In attaining the present invention, this principle is embodied in an apparatus having preferably a spherical base weighted in such fashion that its center of gravity is quite low, the spherical base being provided with a superstructure, such as a cage or other device by means of which one or more occupants may be received.

With the object, therefore, of providing a device for amusement or exercise wherein the operation thereof involves working against the force of gravity, the present invention has been designed and the details of this invention will be more readily apparent in connection with the description of the accompanying drawings, wherein—

Figure 1 is a view in elevation, partly broken away and in section through the base of the device, showing a device constructed in accordance with the present invention.

Figure 2 is a view in section, taken on line 2—2 of Figure 1, and looking in the direction of the arrows.

Figure 3 is a view in section, taken on line 3—3 of Figure 1, and looking in the direction of the arrows, this view showing the weighted base of the amusement device.

Figure 4 is a detail view, showing one of the sectors which is adapted to be placed within the base of the device shown in Figure 1.

Figure 5 is a view in elevation, showing an amusement device constructed in accordance with the present invention and mounted upon a table, this figure illustrating the normal as well as several extreme positions to which the device may be moved during operation thereof.

Referring to the above drawings, 10 designates a base or shell, which is preferably formed of a suitable metal and with a spherical outer surface. A ring 11, flanged at 12, may be secured adjacent the upper and open side of the base 10, this ring serving as a mounting upon which the superstructure of the device may be secured. Within the shell or base 10, and at the bottom thereof, a bottom plate 13 is secured, preferably by rivets 14. This bottom plate may be formed of cast iron or other suitable metal and is preferably as heavy as can be. Over the bottom plate are positioned lead or other weighted sectors 15. These sectors preferably span one-third of a circle and thus are placed within the shell and three to a layer. The size of the sectors is such as to cause each layer to fill, substantially, the space within the shell lying within the plane of such layer, the outer or curved edges of the sectors preferably contacting with the inner wall of the shell. In addition to being placed within the shell in layers, the sectors of each layer preferably overlap the sectors of adjacent layers, as indicated in solid and dotted lines in Figure 3, bolts 16 passing through the sectors and being threaded into the bottom plate 13 to secure the elements in position. To facilitate the securing and removal of the sectors, T-shaped steel plates 18 are set into the sectors, bolts 16 passing therethrough to interlock the elements effectively. Eye bolts may be threaded into the nuts to facilitate the removal of the sectors. A floor board 17 may be placed over the weighted sectors to finish off the structure in a desired fashion.

Upon the flanged ring 11 a superstructure is secured, in the present form of the invention this superstructure being a cage formed of upwardly and outwardly diverging stanchions 19, which are secured to a base ring 20. The base ring 20 is secured to the flange 12, and the stanchions support a hand ring 21. A widened guard rail 22 is secured by means of curved radial rods 23. Opposite stanchions may be formed with loops 24, which are adapted to receive leather straps 25, which extend diametrically between such opposite stanchions, thus serving as a guard member for the device.

The shell 10 may be placed upon a horizontal surface, or it may be placed upon a table 26, having a concave rolling surface 27 secured thereto at 28. The concave rolling surface should be suspended from the cylindrical sides thereof

which are secured at 28 thus maintaining the central portion of the concave element free from the table 26. The shell 10 may be placed with the bottom thereof contacting with the bottom of the concave surface 27, the rolling of the shell upon the surface thus producing an up-hill roll, as will be readily apparent from Figure 1. The concave surface thus contributes to safety in use of the device as well as to quietness in operation and durability. An outer guard rail 29 may be provided upon the table 26 to limit the extent of oscillation of the cage or shell. It will thus be seen that shifting the center of gravity of the device, as by throwing one's weight away from the vertical axis thereof, will cause the device to be rocked upon the outer spherical surface of the shell 10. The weighted base of the shell normally tends to restore the device to a normal position of repose. Movement thereof is thus effected by varying the position of the occupant or occupants of the device. Foot straps 30 may be secured to the flooring 17 to enable an occupant to maintain a desired position.

While the invention has been described with reference to the specific construction shown in the accompanying drawings, it is not to be limited save as defined by the appended claims.

I claim as my invention:

1. An amusement device comprising a spherical shell, weighted elements secured within the shell and adjacent the bottom thereof, stanchions secured to the shell and extending upwardly therefrom, and a rail secured to the upper ends of the stanchions.

2. An amusement device comprising a spherical shell, weighted elements secured within the shell and adjacent the bottom thereof, stanchions secured to the shell and extending upwardly therefrom, a hand rail secured to the upper ends of the stanchions, and a guard rail secured to the last named rail outwardly thereof.

3. An amusement device comprising a spherical shell, weighted elements secured within the shell and adjacent the bottom thereof, stanchions secured to the shell and extending upwardly therefrom, a hand rail secured to the upper ends of the stanchions, a guard rail secured to the last named rail outwardly thereof, and straps secured between certain of the stanchions.

4. An amusement device comprising a weight supporting element, a spherical shell upon which the element is mounted, weighted elements secured within the shell and adjacent the bottom thereof, and a table having a concave rolling surface upon which the shell is adapted to rest.

5. An amusement device comprising a weight supporting element, a spherical shell upon which the element is mounted, weighted elements secured within the shell and adjacent the bottom thereof, and a table having a concave rolling surface upon which the shell is adapted to rest, means being provided to suspend the concave table from the sides thereof whereby the central portion thereof is free from stationary foundation elements.

H. ROUENVILLE.