No. 808,796. PATENTED JAN. 2, 1906.

T. WIRTH.

AMUSEMENT DEVICE.

APPLICATION FILED JULY 9, 1904.

Fig. 1

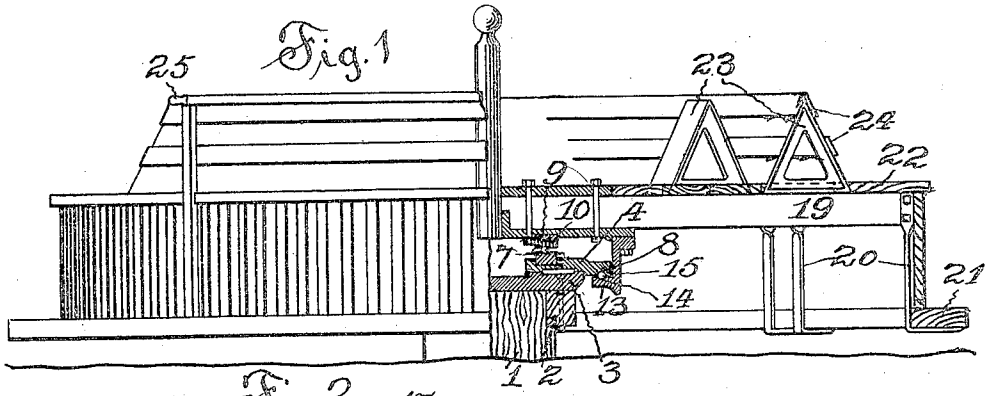


Fig. 2

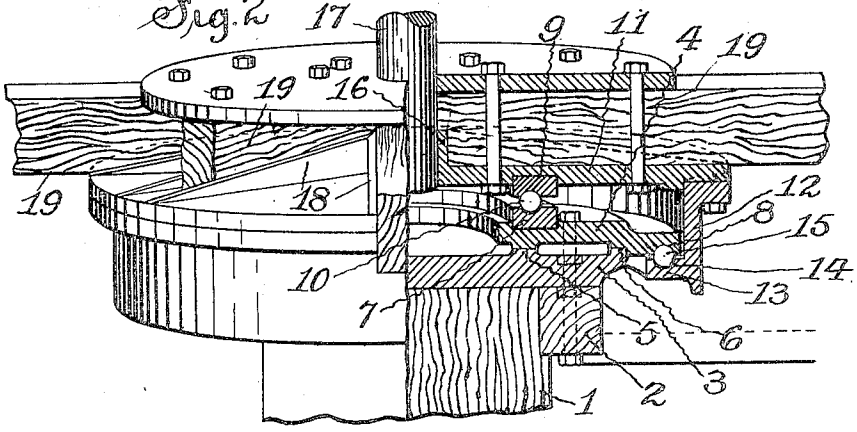
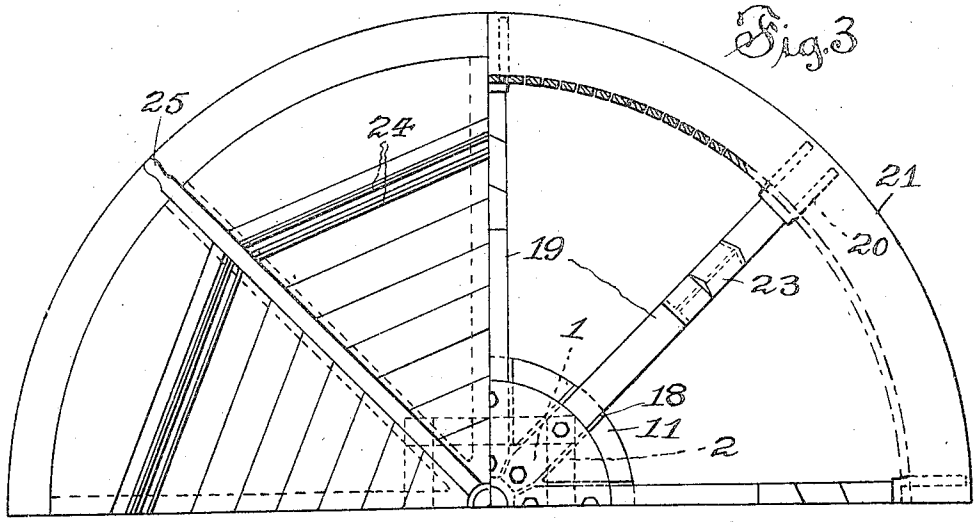


Fig. 3



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UNITED STATES PATENT OFFICE

THEODORE WIRTH, OF HARTFORD, CONNECTICUT.

AMUSEMENT DEVICE.

No. 808,796. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed July 9, 1904. Serial No. 215,950.

To all whom it may concern:

Be it known that I, THEODORE WIRTH, a citizen of the United States, and a resident of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Amusement Devices, of which the following is a specification.

The invention relates to amusement devices, and more particularly to the class of such devices commonly called "merry-go-rounds."

The object of the invention is to provide a device of the sort specified which may be readily placed in position in public parks or other suitable places and so constructed that it may be "knocked down" for transportation and very readily set up.

A further object is to provide a peculiar bearing for such a device with its parts so constructed and arranged that there can be no cramping or binding of the bearing parts. This arrangement provides an antifriction-bearing which permits the platform of the device to rotate freely for a considerable period of time after it is started in motion.

A still further object is to so arrange the several parts of the mechanism that it will be absolutely safe when used by children without attendance, all the parts being so inclosed that it is practically impossible for any one to be injured by being caught in the moving parts.

In the accompanying drawings, Figure 1 is a view in side elevation, partially cut in section. Fig. 2 is a sectional perspective view. Fig. 3 is a detail plan view, partially in section.

Referring to the drawings, the numeral 1 denotes a post which may be securely planted in the earth and provided at or near its top with a header 2, completely encircling the post and forming with it a base or support for a plate or bed-piece 3. This piece is cast to form and securely bolted to the header 2 and for ease in manufacture, to provide a proper base for a bearing-plate 4, is finished as to two annular portions 5 and 6. Upon these two finished annular portions rests a bearing plate or disk 4, provided at its inner and upper edge with a hardened ball-ring 7 and at or near its outer and lower edge with a ball-race 8. Coöperating with the ring 7 is a second hardened ring 9, both the rings 7 and 9 being grooved to form a ball-race for the balls 10 of a ball-bearing. The ring 9 is let into the lower surface of a supporting-spider 11. This spider is of ring form and has secured to it and dependent from its lower and outer edge an annular bearing member 12. This bearing member is of peculiar form, extending when in position about the bearing-plate 4 and having at its lower edge a projecting lip 13, provided with a ball-groove 14, which underlies the edge of the plate 4 and coöperates with the groove 8 to form a raceway for balls 15. The spider 11 has a central flange 16, forming a support for a post 17. Extending from the flange 16 in substantially radial directions are flanges 18, which form suitable recesses or pockets for receiving radially-extending arms 19. These arms are preferably of wood and with the spider form the main frame of the rotating part of the merry-go-round.

At the outer ends of the beams 19 are secured dependent braces 20, which are of step form and support a running-board 21. A lattice or sheathing extends between the running-board 21 and the flooring or seat portion 22, which in turn is supported directly upon the arms 19. Near the outer ends of each of the radially-extending beams 19 are brackets 23, which form a suitable support for backboards 24, that prevent ready access to the center of the rotating table. The whole upper surface of the main frame is sheathed, and thus all relatively movable and stationary parts are completely isolated.

At intervals about the main frame are handles 25, which may readily be grasped by one standing on the ground, and by pushing against the handle and running forward the main frame, with its supported parts, may be rotated, whereupon the operator jumps upon the running-board and by his weight gives impetus to the moving parts.

Perhaps the most important feature of the device resides in the peculiar form of antifriction-bearing. It is to be noted that there is a main or central bearing for sustaining the weight, while a supplemental bearing, located at some distance from the main bearing and in opposition to it, prevents undue strains and cramp upon the main bearing. The outer or supplemental bearing is ordinarily expected to do little work; but when the platform is running with an unbalanced load it reduces the strains thrown upon the inner or main bearing.

The peculiar bearing herein described is especially applicable to a device of the charac-

ter herein illustrated. In the use of the device the load in a large majority of cases is unevenly deposited, and it frequently happens that the entire load will be upon one side. From this it will be seen that a peculiar arrangement and construction of parts must be had in order to successfully withstand the extremely hard usage and severe strains to which the device is subjected by reason of the unbalanced load placed upon it, and it is further required in order to provide a successfully-operative device that the platform shall rotate easily with such unevenly-deposited load.

Obviously various modifications might be made in the detailed arrangement of the parts without departing from the spirit or intent of the invention, and the bearing might be constructed in various ways, the important feature of the bearing being that it has main and supplemental bearings coöperating to reduce strains and provide an easy and free running bearing.

It is to be noted that the bearings are arranged in parallel planes, and of course it is quite immaterial whether the main bearing or supplemental bearing is arranged nearer the center of the device so long as the bearings coöperate to reduce cramp and produce easy running. Furthermore, it is not essential that the bearings be arranged at any fixed distance from the center, as their position may be varied to suit the exigencies of any particular case.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a merry-go-round, in combination, a fixed support, a bearing-plate secured upon the upper end thereof and having a flange, a supporting-plate for a platform mounted on the bearing-plate and having a projection extending about, and underlying the flange, ball-bearings located between said flange and projection, ball-bearings located between the upper surface of the plate and the under surface of the platform-support, and a platform mounted on the support, the plane of the platform and each of the sets of bearings being parallel.

2. In a merry-go-round, in combination, a fixed support to receive a bearing-plate in proximity to the surface of the ground, the bearing-plate secured thereto and having a flange, a support for a platform mounted on the bearing-plate and having a projection underlying the flange, ball-bearings located between said flange and projection, ball-bearings located between the upper surface of the plate and the under surface of the platform-support and a running-board platform dependent from the support in proximity to the ground and a lattice intermediate the platform-support and running-board, providing a casing encircling and guarding the other movable parts.

3. In a merry-go-round, in combination, a fixed support, a plurality of bearings arranged thereon, a rotatable platform mounted upon said bearing, and a dependent running-board extending about the platform whereby a person may gain and retain position upon the platform.

4. In a merry-go-round, in combination, a fixed support, a plurality of bearings operatively arranged thereon, a rotatable platform mounted upon said bearings and provided with a foot or running board extending thereabout and handles projecting from said platform in position to be grasped by a user.

5. In a merry-go-round, in combination, a fixed support, a bearing-plate secured thereto, and having a flange, a platform mounted on the bearing-plate and having a projection underlying the flange, balls located between said flange and projections, and balls located between the upper surface of the plate and the under surface of the platform, a rim depending from the platform and entirely surrounding and inclosing said bearing and supports, and a running-board secured to the lower edge of said rim.

6. In a merry-go-round, in combination, a fixed support, a bearing-plate mounted on the support and having a flange, a rotatable platform having a dependent bearing member with a lip underlying said flange, balls located between said lip and flange, balls located on the upper surface of the plate and between it and the rotatable platform, a supporting-spider forming a part of said platform, radial arms extending from the spider, a rim depending from said platform and entirely inclosing the bearing parts of the device and a running-board secured to the lower edge of said rim.

7. In a merry-go-round, in combination, a support, a bearing-plate fixed to the upper part of said support and having a circular flange, a spider having a depending part with a lip underlying said flange, balls located between said lip and flange, balls located between the upper surface of the plate and spider, radial arms secured at the inner ends in recesses in the spider, a platform mounted on said arms, supports depending from the outer end of the arms, and a running-board secured to the lower end of said supports.

8. In a merry-go-round comprising a fixed support, a plurality of bearings operatively arranged thereon, a rotatable platform mounted upon said bearings and provided with a foot or running board extending thereabout, a seat extending about the entire platform above the running-board, and handles projecting from said platform in position to be grasped and pushed whereby the operator may start the platform in motion and mount the running-board and seat.

9. In a merry-go-round, in combination, a fixed support, a bearing-plate secured to the

support and having a circular flange, a spider mounted on the support and having a depending part with a lip underlying the flange, balls secured between said lip and flange, balls located between the under surface of the spider and upper surface of the plate, radial arms with their inner ends located in sockets in said spider, a platform mounted on said radial arms, a rim secured to the outer ends of said arms and extending entirely around the device and entirely inclosing the bearings and a running-board secured at the lower edge of said rim.

10. In a merry-go-round, in combination, a fixed support, a bearing-plate mounted on said support and having a flange, a spider having a depending portion with a lip underlying said flange, balls located between said flange and lip, balls located between the under surface of the spider and upper surface of said bearing-plate, radial arms with their inner ends located in sockets in said spider, a platform located on said arms, supports depending from the outer ends of said arms, a rim extending entirely around the platform and completely guarding the bearings against access and a running-board secured to said supports at the lower edge of the rim.

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