Aug. 17, 1937. J. WHITELEY 2,090,166

AMUSEMENT DEVICE

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Fig. 1.

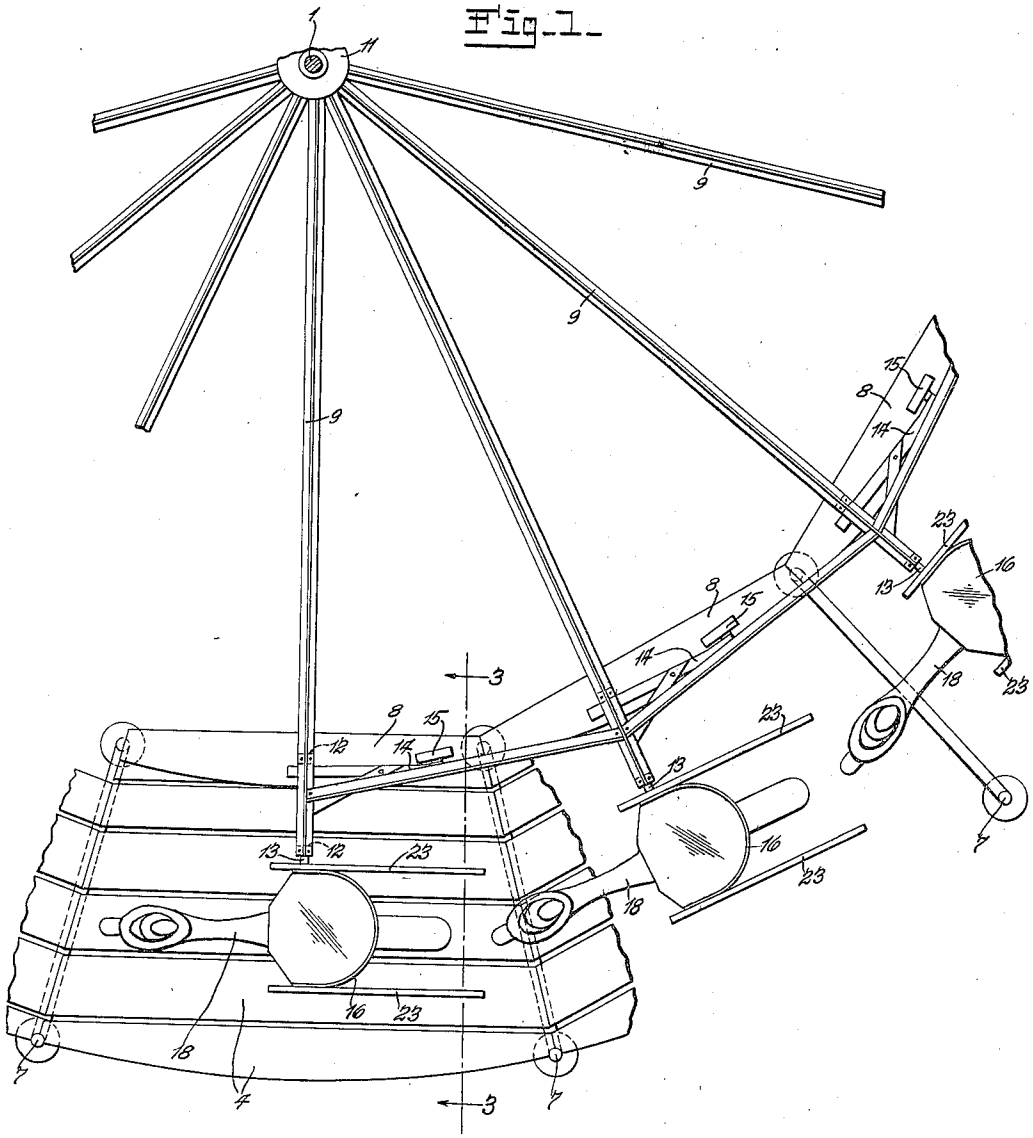

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Fig. 2.

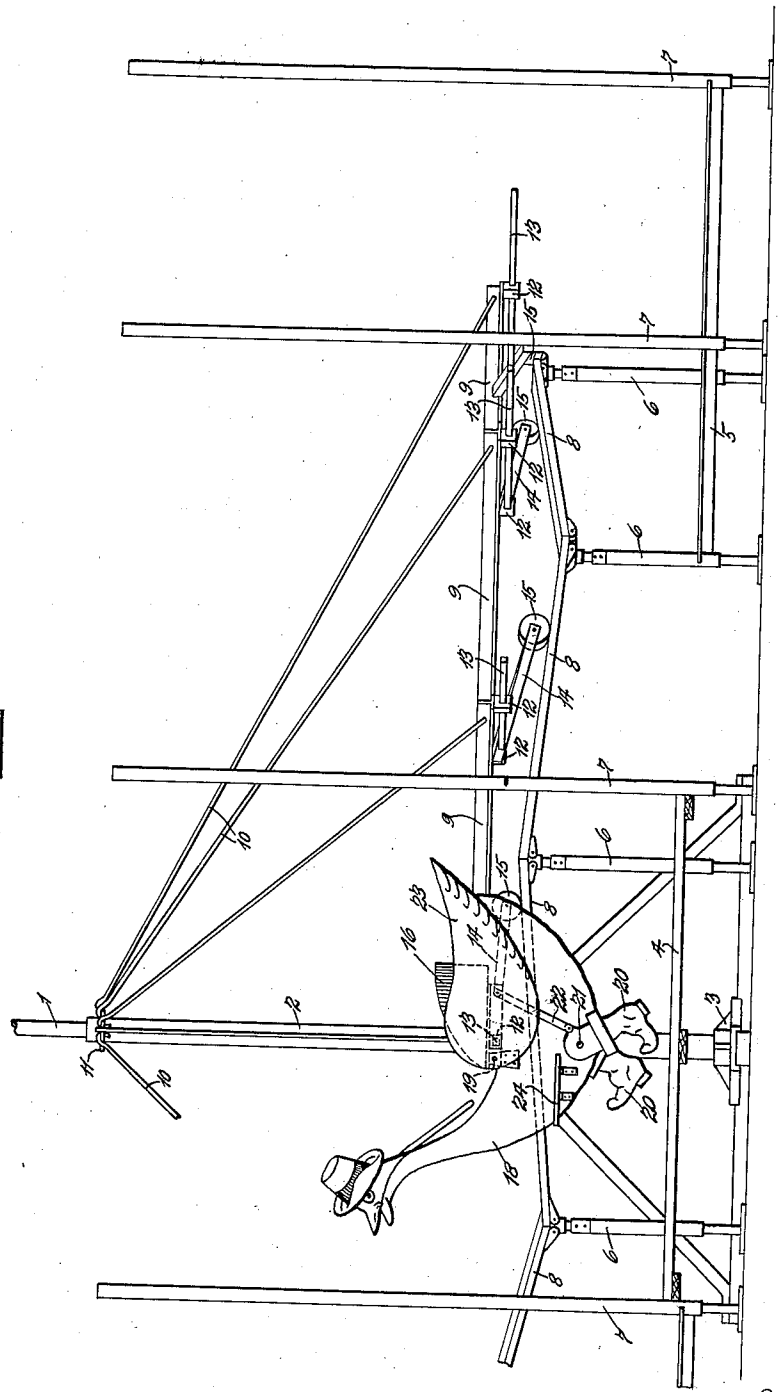

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Fig. 3.

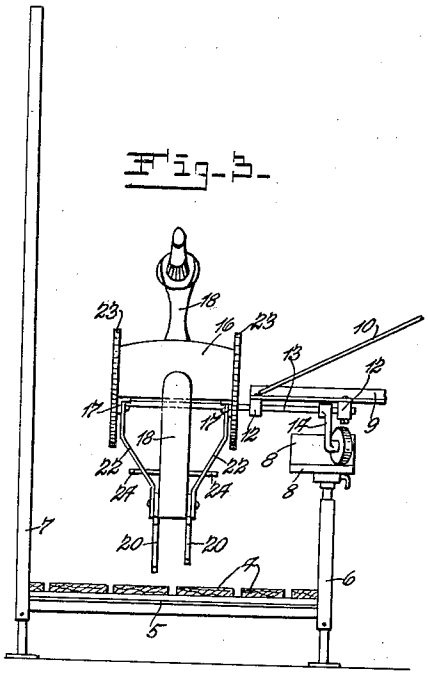


Fig. 4.

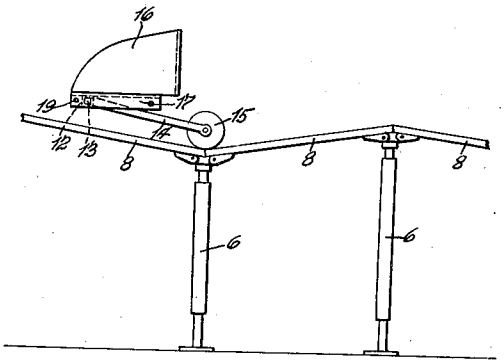
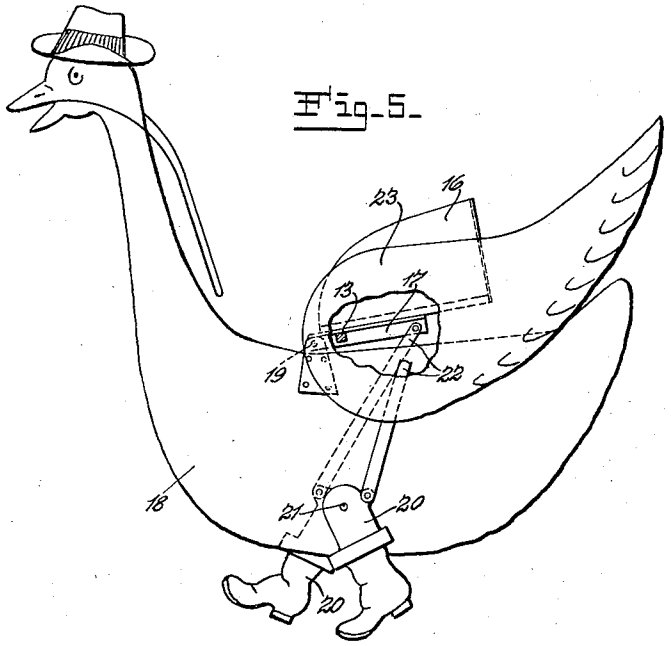


Fig. 5.



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Patented Aug. 17, 1937

2,090,166

UNITED STATES PATENT OFFICE

2,090,166

AMUSEMENT DEVICE

James Whiteley, Olcott, N. Y.

Application June 8, 1936, Serial No. 84,107

9 Claims. (Cl. 272—44)

This invention relates to amusement devices and has special reference to amusement devices of the rotary type having carriages and seats for passengers and mechanism for oscillating the carriages and seats as an incident to rotation thereof about a central vertical axis.

Objects of the invention are to provide an amusement device including a central rotary mast or staff supporting a number of rigid outwardly extended or radial sweeps each of which supports a rocker arm or shaft; to mount a carriage and seat on the outer end of each of said rocker arms or shafts; to provide a pivotal connection between the carriage and the seat whereby, when the rocker arm or shaft is rocked, the seat will likewise be rocked and the carriage oscillated to a lesser degree than the seat; to provide means for rocking the rocker arm or shaft almost continuously and thereby oscillating the carriage and the seat almost continuously automatically and as an incident to rotation of the amusement device; and to provide an amusement device embodying the interesting and attractive devices and elements herein disclosed.

Other objects will be readily apparent from the following description, reference being made to the annexed drawings, in which—

Fig. 1 is a plan view of a sufficient portion of my improved amusement device to afford an understanding thereof when considered with this specification.

Fig. 2 is an outer side elevation of a portion of the amusement device.

Fig. 3 is a cross-sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a detail view of the devices for rocking the seat.

Fig. 5 is an enlarged side elevation of one of the carriages and its associated seat, a part being broken away.

In the embodiment of the invention shown, there is a central mast or staff 1 constituting a support for a rotary tubular shaft 2 through which the mast or staff 1 extends. The lower end of the mast or staff 1 is attached to a rigid fixture 3 which also constitutes a bearing for the lower end of the shaft 2.

A substantially circular platform 4 surrounds the shaft 2 and is coaxial therewith. The elements forming the platform 4 have their ends mounted on horizontal supporting members 5 which are supported at sufficient height above the ground or floor by an inner annular series of posts 6 and an outer annular series of posts 7.

As shown (Fig. 2), alternative ones of the inner annular series of posts 6 are of different heights. The ends of track or rail members 8 are supported by the inner annular series of posts 6 so that all of said rails or track members are inclined, the depressed ends of adjacent rails or track members abutting and the elevated ends of adjacent rails or track members likewise abutting so as to form a continuous approximately circular track.

A series of radial sweeps 9 have their inner ends attached to the tubular rotary shaft 2 and their outer ends extending outwardly over and beyond the track 8. Supporting rods 10 have their outer ends connected with the outer ends of the respective sweeps 9. These rods extend inwardly and upwardly and have their inner ends detachably engaged with a support 11 rigid with the upper end of the tubular shaft. Thus, the sweeps 9 will be supported in approximately horizontal position and, if desired, they may be further braced and strengthened by various known bracing and strengthening connections.

The outer end of each sweep 9 supports at the underside thereof a pair of spaced bearings 12, and in each pair of said bearings a rocker arm or shaft 13 is mounted for rocking movements. Arms 14 are attached to the respective rocker arms or shafts 13, and each arm 14 has mounted thereon a roller 15 which operates along and upon the track 8 when the device is rotated.

A seat 16 is attached to the outer end of each rocker arm 13. As shown, the seat is secured to supports 17 which have their forward ends connected with the carriage 18 by pivots 19. The supports 17 are mounted on the arms or shaft 13 by appropriate connections which prevent the supports 17 from turning with respect to the arms or shafts 13, but will require the supports 17 to oscillate with the rocking movements of the arms or shafts 13.

A pair of legs 20 are mounted on pivots 21 supported by each carriage 18 in a relationship in which said legs extend and are visible below the lower portion of the carriages 18. Each leg 20 is connected by a link 22 with the rear end of the adjacent pivoted seat support 17 (Figs. 3 and 5). Thus, the seat 16 and the carriage 18 may be oscillated relatively to a limited extent, the oscillation of the carriage 18 being very slight while the oscillation of the seat 16 is considerable. To maintain the parts in this relationship and permit of this relative oscillation, it will be noted that the lower ends of the links 22 are pivoted to the legs 20 relatively close to the pivots 21.

In the specific embodiment shown in the drawings, each carriage 18 in side elevation has the general form and outline of a goose, and to each side of the seat 16 a wing element 23 is secured so that said wings will be oscillated vertically when the device rotates, due to the fact that the seat 16 is oscillated vertically by the rocking movements of the arm or shaft 13. Also, the legs 20 will be oscillated in opposite directions in simulation of a person walking, due to the fact that the lower end of one link 22 is pivoted to the rear

side of one of the legs and the lower end of the other link 22 is pivoted to the front side of the leg to which it is connected.

In end elevation or plan view, each carriage 18 is relatively narrow so that the feet and legs of the passenger will be at opposite sides of the carriage and the feet of the passenger may rest on supports 24.

When the tubular shaft 2 is rotated, the sweeps 9 will be rotated in an approximately horizontal plane. The rollers 15 traveling along the various inclined track members 3 will be alternately raised and lowered, thereby rocking the rocker arms or shafts 13. The rocker arms or shafts 13 constitute supports for the carriages and the seats. When said rocker arms or shafts are rotated, the seat supports 17 and the seats 16 will be rocked about the axes of the rocker arms or shafts 13; the legs 20 will be operated as in walking, and the wings 23 will be raised and lowered with the seat. The carriages 18 will be slightly oscillated during these operations, imparting the impression and appearance that the carriages are utilizing the legs 20 to walk, although, as shown in Fig. 2, the feet or lower ends of the legs do not contact with the platform 4.

The construction and arrangement of my improved amusement device may be varied within the full scope of equivalent limits without departure from the nature and principle of the invention, or from the scope of the appended claims.

I claim:

1. An amusement device comprising an annular series of seats supported for rotation about the axis of the series, an image pivotally supported by each seat, legs pivotally supported by each image, links pivotally connecting said legs with the respective seats for swinging the legs by oscillation of the seats, and mechanism for oscillating the seats vertically during rotation of the seats.

2. An amusement device comprising a rotary vertical shaft, a series of radial sweeps supported by said shaft, a rocker shaft supported at and extending beyond the outer end of each sweep, means for rocking said rocker shafts when said sweeps are rotated by said vertical shaft, a seat rigidly attached directly to each of said rocking shafts for rocking movements thereby, an image pivotally connected with and supported by each seat for movements relative to said seat, means for holding said image and said seat in proper relationship, and a pair of wings attached to each seat and operated thereby.

3. An amusement device comprising a rotary vertical shaft, a series of radial sweeps supported by said shaft, a rocker shaft supported at and extending beyond the outer end of each sweep, means for rocking said rocker shafts when said sweeps are rotated by said vertical shaft, a seat supported for rocking movements by each of said rocking shafts, an image pivotally connected with and supported by each seat, means for holding said image and said seat in proper relationship, a pair of wings attached to each seat and operated thereby, and mechanism controlling movement of said seats and said images whereby the seats are oscillated to a greater extent than the images.

4. An amusement device comprising a radial series of sweeps supported for rotary movement about the axis of said series, a seat supported adjacent to the outer end of each of said sweeps, means for rocking said seats about a horizontal axis during rotation of said seats with said sweeps, an image pivotally supported by each seat, legs pivotally supported by each image, and elements connecting said legs with said seats respectively for swinging said legs by rocking movements of said seats.

5. An amusement device comprising a radial series of sweeps supported for rotary movement about the axis of said series, a seat supported adjacent to the outer end of each of said sweeps, means for rocking said seats about a horizontal axis during rotation of said seats with said sweeps, an image pivotally supported by each seat, legs pivotally supported by each image, elements connecting said legs with said seats respectively for swinging said legs by rocking movements of said seats and limiting extent of relative movement of the respective images and seats, and wings attached to said seats for vertical swinging movements thereby relative to said images.

6. An amusement device comprising a series of approximately horizontal sweeps extending radially from a common vertical axis for rotation thereabout, a seat supported near the outer end of each sweep, an image pivotally supported by each of said seats, wing elements for said images attached to the respective seats, mechanism for rocking said seats when said sweeps are rotated about said axis, legs pivotally supported by said images for swinging movements, and links connecting said legs with said seats respectively for imparting swinging movements to said legs when said seats are oscillated and for limiting extent of relative movement of said images and said seats.

7. An amusement device comprising a radial series of sweeps supported for rotary movement about a vertical axis, a rocker shaft supported at the outer end of each sweep, seats attached directly to said rocker shafts for vertical oscillation thereby, means for imparting rocking movements to said shafts and thereby oscillating said seats, an image pivoted to each of said seats, foot rests for the passengers on said images, and means for limiting extent of movement of said images with respect to said seats.

8. An amusement device comprising a radial series of sweeps supported for rotary movement about a vertical axis, a rocker shaft supported at the outer end of each sweep, seats attached to said rocker shafts outwardly beyond said sweeps for vertical oscillation by said shafts, means for imparting rocking movements to said shafts and thereby oscillating said seats, an image pivoted to each of said seats, foot rests for the passengers on the outer sides of said images, legs pivotally supported by said images for swinging movements, and links connecting said legs with said seats for swinging said legs relatively in opposite directions by said seats and for limiting extent of movement of said images with respect to said seats.

9. An amusement device comprising a series of approximately horizontal sweeps extending radially from a bottom vertical axis for rotation thereabout, a rocker shaft supported at the outer end of each sweep, means for rocking said arms during rotation of said sweeps about said axis, a seat supported by and rigidly attached to each of said rocker shafts for rocking movements thereby, an image pivotally supported by each of said seats for relative movements thereto, wing elements for said images rigidly attached to the respective seats for movement in synchronism therewith, and devices pivotally connecting said seats with said images respectively for moving said images with respect to said seats and said wings and limiting extent of movement of said images.

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