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G. P. GOODFELLOW

1,583,753

AMUSEMENT DEVICE

Filed Oct. 2, 1925

Fig. 1.

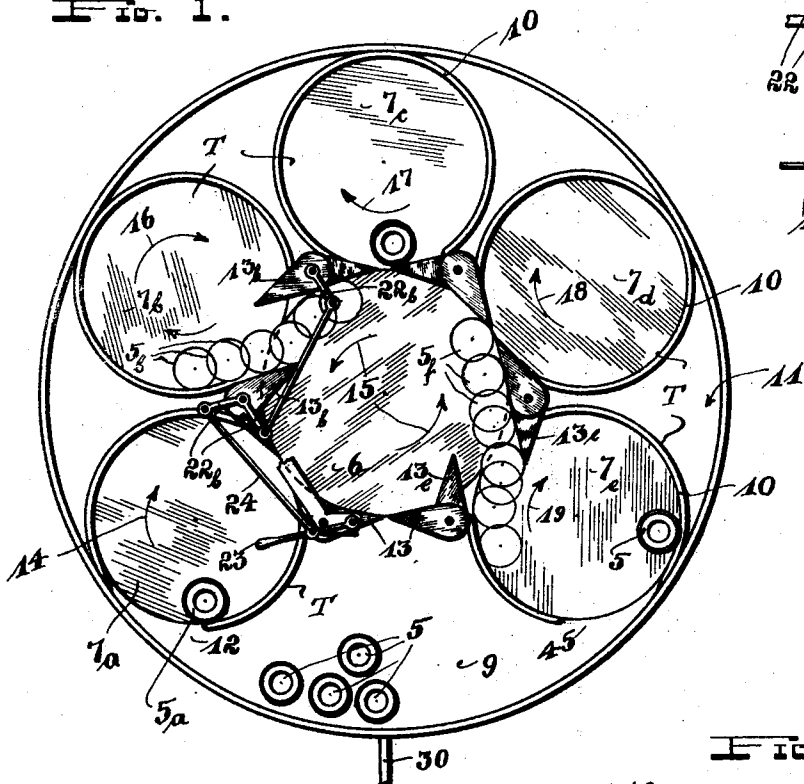


Fig. 4.

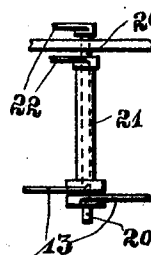


Fig. 2.

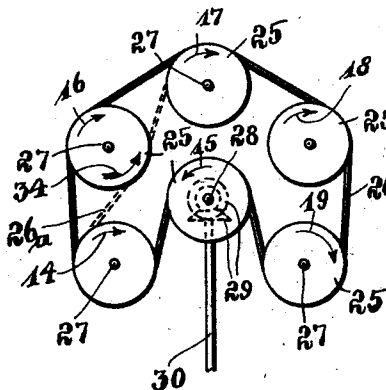


Fig. 5.

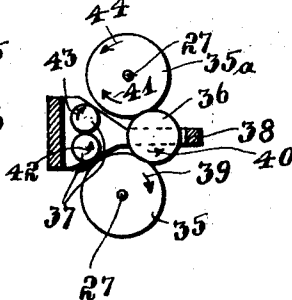
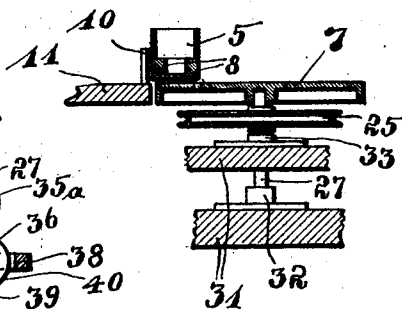


Fig. 3.



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UNITED STATES PATENT OFFICE.

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AMUSEMENT DEVICE.

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To all whom it may concern:

Be it known that I, GEORGE P. GOODFELLOW, a citizen of the United States, residing at Pasadena, in the county of Los Angeles and State of California, have invented a new and useful Amusement Device, of which the following is a specification.

This invention relates to devices affording amusement to people by carrying and transporting the people over and through an unexpected course of action.

One of the objects of this invention is to provide a device with several turntables on and over which a suitable number of carriages may be operated while people are in the carriages.

Another object is to provide operating means for rotating the turntables in certain directions in relation to one another.

Another object is to provide controlling means by which carriages can be diverted and directed from one to another of the turntables.

Another object is to provide controlling means by which carriages can be diverted and transported in a certain path over different turntables.

Another object is to provide controlling means by which carriages can be diverted and transported in a certain path over all the different turntables from one end of the cooperating combination of turntables to the other end in a certain course of action.

Other objects will appear from the following description and appended claims as well as from the accompanying drawing, in which—

Fig. 1 is a fragmentary top plan view of a structure with a number of turntables, operating, and controlling means, embodying the invention in a simple form.

Fig. 2 is a top plan view of operating means in form of pulleys operatively connected by a flexible member, as a belt, in combination with a driving means by which one shaft can be rotated so that such rotating motion can be transmitted to the several other shafts by means of the flexible member.

Fig. 3 is a fragmentary vertical section through one of the turntables with support-

ing and actuating means, on approximately line 3—3 of Fig. 1.

Fig. 4 is a fragmentary side elevation of control-levers and connections.

Fig. 5 is a fragmentary top plan view of reversible actuating means for the turntables.

Using carriages or so-called tubs, illustrated in vertical section in Fig. 3, and roughly outlined in top plan view in Fig. 1, as indicated at 5, for seating people, to be entertained and transported thereby, such a transporting is accomplished and facilitated by the use of the turntables 6 and T. The carriages or tubs 5 are preferably provided with casters or like means in their undersides, as indicated at 8 in Fig. 3, to facilitate a rolling or moving of the carriages or tubs.

At the entrance or other similar suitable place, as indicated at 9, a suitable number of tubs 5 are held in readiness to be used in the device.

Inasmuch as such tubs are subjected to a certain centrifugal force or action when placed on rotating turntables or platforms, railings or other similar retaining structures 10 are provided a suitable distance above the surface of the stationary floor or base 11 of the device, so as to encircle the rotating and movable turntables, as illustrated in Figs. 1 and 3.

An inlet opening 12 is provided in the railing near the entrance 9, so that tubs may be moved from their storing or inoperative position at 9 towards one of the rotating turntables.

Once placed upon one of the turntables, it is merely a matter of manipulating the control mechanism of the device so that the tub is diverted from one to another of the turntables.

The control mechanism embodies control-arms 13, which are preferably disposed at approximately the same level with the railings 10, to form a part of the railings, forming at the same time the gates between the several compartments above the several turntables.

To distinguish between the several turntables T and the tubs disposed over or on such turntables, a letter will be added to

the different numerals, though the turntables may be all alike and the tubs may be all alike. The first turntable next to the entrance 12 will therefore hereafter be called 7_a, the next following will be 7_b, and so on, though in general the tubs may still be referred to as the tubs 5, and the turntables as turntables 6 and T.

The tub 5_a, being on the turntable 7_a, moves with the turntable whenever the turntable is rotated, and, if the turntable is rotated at a suitable velocity, the tub 5_a is by reason of centrifugal influences forced against the railing 10. While the tub 5_a is so forced against the railing, with the supporting turntable 7_a rotating in a certain direction, the tub 5_a is practically rolled against and along the railing, so that the tub is rotated about its own axis in addition to being moved in a circular path on the turntable 7_a.

The central turntable 6 may be rotated in the direction of the arrow 15, while the outer T turntables may be rotated in the directions indicated by the arrows 14, 16, 17, 18 and 19.

While the tubs 5 are so moved in a circular path on the different turntables, the different control-arms or gates 13 may be opened or closed.

If one of the control-arms or gates is moved in or across the path of the circulating tubs in the compartments on any of the turntables T, as for instance the arm 13_a in relation to the turntable 7_a, any tub located in this compartment is diverted and caused to move into the central compartment over the central turntable 6, as indicated by the circles 5_i.

If, on the other hand, one of the gates is turned into the path of the circulating tubs on the central turntable 6, any tub located on the central turntable at such a moment is thereby diverted and caused to move into one of the compartments over one of the outer turntables T, as indicated and illustrated by the gates 13_b and the circles 5_j.

From the above it will be clear that two gates are moved at the same time to open one of the outer compartments in relation to the central compartment, one gate being turned in while the other is turned out, for discharging from one of the outer compartments, the one gate being turned against the rotating movement of that particular outer turntable as illustrated by the gates 13_a in relation to the arrow 19; while for receiving tubs in one of the outer compartments the gate is moved to point in the direction of the rotating of that particular turntable, as illustrated and indicated by the gates 13_b in relation to the arrow 16.

Any number of tubs 5 can be diverted into one of the outer compartments over one of the turntables T, and any one of the tubs

or any number of the tubs in one of the outer compartments over one of the turntables T can be discharged from the outer compartments into the central compartment.

One certain tub can be diverted and caused to move from turntable 7_a to the central turntable 6, and then into the next compartment on the turntable 7_b, then again to the central turntable 6, then to the turntable 7_c, then again to the central turntable 6, then to the turntable 7_d, then again to the central turntable 6, then to the turntable 7_e, then again to the central turntable 6, and then at last from the central turntable 6 back to the starting place at 9, to pass through a complete course of action.

A certain tub may also be moved and directed back and forth between two adjoining compartments over any of the turntables without or before being allowed to follow up a certain path through the whole structure, and such a tub may be returned to the first turntable by suitable manipulations.

As illustrated in Fig. 4, one control-arm 13 is mounted on the central shaft 20, while another arm is mounted on a tubular member 21, surrounding the shaft 20. Actuating levers 22 serve to control the shaft 20 and tube 21, and thereby serve to control the arms or gates 13.

The control-lever 23 illustrated in Fig. 1 allows a handling of the control-arms or gates 13_b through the connecting rods 24 and through the levers 22_b. Such control-levers may be provided above or below the turntables for each of the gates.

A number of pulleys 25 are illustrated in Fig. 2, operatively interconnected by a flexible member 26, for rotating the turntable-shafts 27. The shaft 28 of the central turntable 6 is actuated by gear or other similar motion transmitting means 28, to transmit the rotating motion from the main shaft 30 to the several shafts 27.

The directions of rotation of the turntables in Fig. 1 are the result of transmitting the rotating motion from the shaft 30 to the turntables in the manner as illustrated in Fig. 2, as indicated by the arrows and corresponding numerals.

To reverse the direction of rotation of one or more of the turntables, the flexible member can merely be placed in the manner as indicated at 26_a so as to result in a rotating of the turntable 7_b in the direction of the arrow indicated at 34 in Fig. 2.

Fig. 3 illustrates a simple form of mounting the turntables, the shaft 27 being mounted on the bearing 32, and being also mounted in the bearing 33, both bearings being mounted on the frame structure 31.

A slight modification of a structure for reversing the directions of rotation of the

turntables is illustrated in Fig. 5. Friction wheels or gears may be used with equal results in this manner. The wheels 36 and 37 are mounted in the shiftable frame 38.

5 By shifting the frame 38 so that the wheel 36 operatively interconnects the wheels 35, the rotation of the one wheel 35 in the direction of the arrow 39 results in a rotating of the wheel 36 in the direction indicated by the arrow 40, by which the second wheel 35 is rotated in the direction indicated by the arrow 41. On shifting the frame 38 in the opposite direction, so that the wheels 37 operatively interconnect the two wheels 35, a rotating of the one wheel 35 in the same direction indicated by the arrow 39 results in a rotating of the second wheel 35 in the opposite direction as indicated by the arrow 44, through the action of the inserted wheels 37, the first wheel 37 receiving a rotating movement in the direction of the arrow 42, and the second wheel 37 receiving a rotating movement in the direction of the arrow 43.

25 The entry-opening 12 is not absolutely necessary, since the tubs may be started from the inoperative position at 9 by being first moved through the gates 13 into the central compartment over the turntable 6, and from there transferred to the several turntables T. On the other hand, if the turntables are to be operated at such a speed that the tubs might escape through the opening 12 during the normal operation, contrary to the intended control by the gates 13, additional gates are provided in such a case for the opening 12 as well as for the outlet opening 45 at the opposite side from the starting place 9. Of course, the out-

let opening 45, too, is not absolutely necessary, and the tubs may be discharged, as indicated at 5, and from the central turntable 6 back to the place 9 through the gates 13.

Having thus described my invention, I claim:

1. In an amusement device, turntables disposed to rotate in certain directions, tubs free to move around their own axes and movable over the turntables and adapted to be actuated by the frictional contact between the underside of the tubs and the top surface of the turntables, and controlling means for holding, diverting, and directing the tubs over the turntables.

2. In an amusement device, turntables, a frame structure for holding the turntables to rotate around their individual axes, means for rotating the different turntables in certain directions in relation to one another, tubs for seating people supported by the turntables and movable thereon, railings on the frame structure encircling the turntables having openings by which the tubs can enter and leave the turntables within the encircling railings, gates in the openings of the railings by which the tubs can be held to rotate on the turntables within the railings and by which the tubs can be diverted into and out of the compartments formed by the railings and by the gates on the turntables, and controlling means for holding, diverting and directing the tubs on the turntables to pass over the different turntables in various courses of actions.

In testimony that I claim the foregoing as my invention I have signed my name.

GEORGE P. GOODFELLOW.