

Nov. 24, 1925.

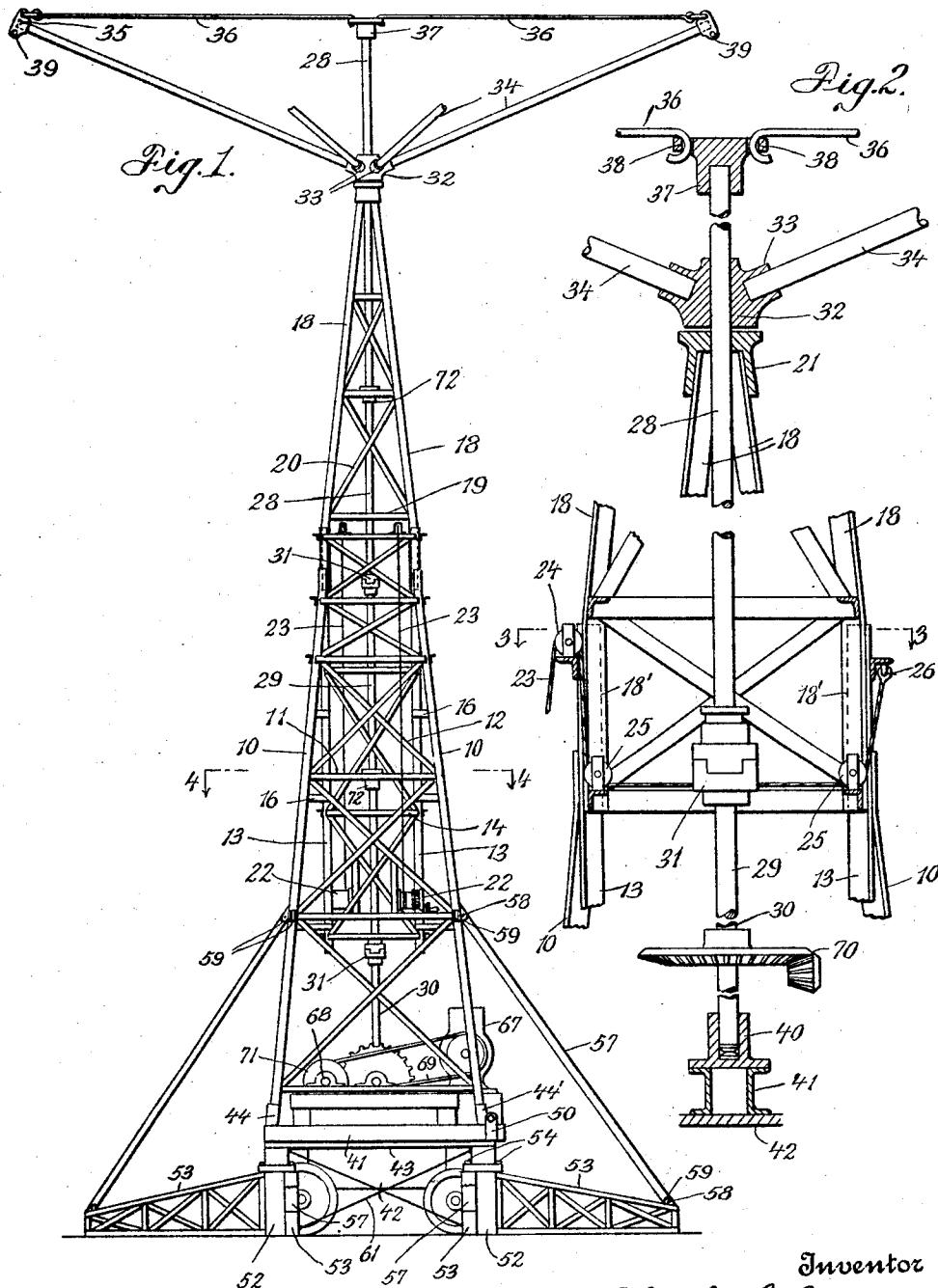
1,563,122

F. L. UZZELL

POR TABLE AMUSEMENT RIDING DEVICE

Filed Jan. 13, 1922

2 Sheets-Sheet 1



52 Inventor
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2 Sheets-Sheet 2

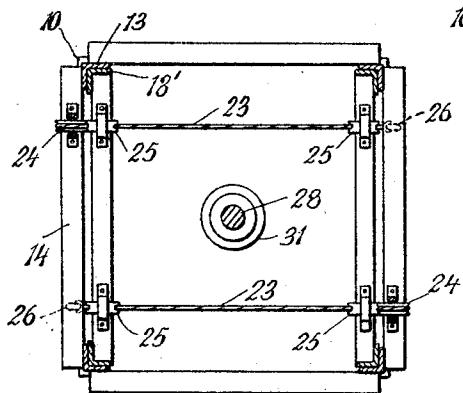


Fig. 3.

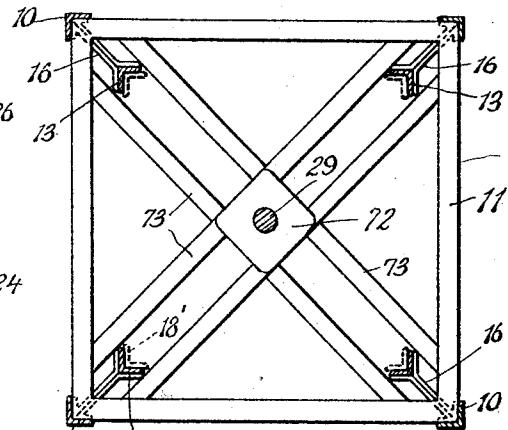


Fig. 4.

Fig. 5.

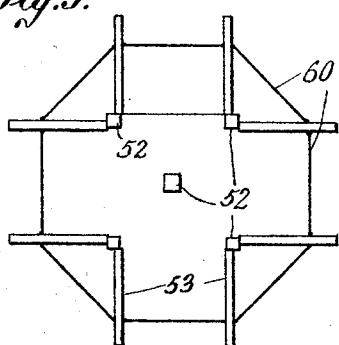


Fig. 8.

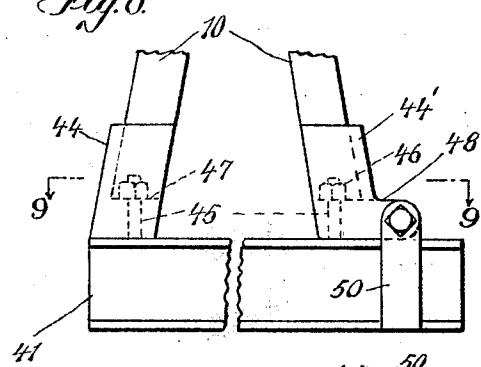


Fig. 6.

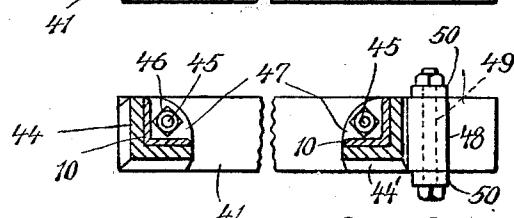
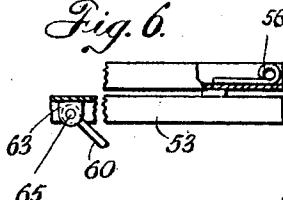
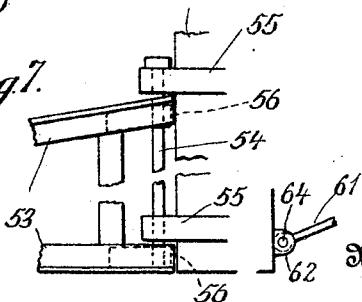


Fig. 9.

Fig. 7.



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UNITED STATES PATENT OFFICE.

FRANK L. UZZELL, OF JAMAICA, NEW YORK.

PORTABLE AMUSEMENT RIDING DEVICE.

Application filed January 13, 1922. Serial No. 529,057.

To all whom it may concern:

Be it known that I, FRANK L. UZZELL, citizen of the United States, and resident of Jamaica, in the county of Queens and State 5 of New York, have invented certain new and useful Improvements in Portable Amusement Riding Devices, of which the following is a specification.

This invention relates to a type of amusement device commonly known as a circle swing, in which a number of freely suspended cars move in a common circular path.

The invention has for its object to provide a portable riding device of this type, in which the various parts may be compactly assembled for transportation purposes.

In the accompanying drawings I have illustrated a preferred embodiment of the invention.

Fig. 1 of the drawings is a side elevation of a device embodying the invention, the cars being omitted, and certain parts being broken away.

Fig. 2 is an enlarged fragmentary central vertical section at right angles to Fig. 1.

Fig. 3 is a detail horizontal sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a detail horizontal sectional view taken along the line 4—4 of Fig. 1.

Fig. 5 is a diagrammatic plan view showing the arrangement of the removable base supports and braces.

Fig. 6 is a fragmentary plan view, partly in section, of one of the base supports.

Fig. 7 is a fragmentary side view of the base supports.

Fig. 8 is an enlarged fragmentary side view showing the lower portion of the tower and the means for securing it to the base.

Fig. 9 is a horizontal section on the line 9—9 of Fig. 8.

As here shown, the device comprises, briefly, a vertical sectional shaft carrying radiating arms at its upper end, from which the cars are suspended, a telescopic tower to support and brace the shaft, and a base carrying the tower and the drive mechanism for revolving the shaft, this base being preferably permanently mounted on a transportation wagon.

The tower is here shown as of square form and comprises an outer lower section of frusto-pyramidal form made up of corner posts 10 joined by horizontal and inclined

braces 11 and 12. This outer section encloses and rigidly supports a straight sided square inner section made up of corner posts 13 joined by horizontal and diagonal braces 14 and 15. This inner section fits snugly within the top part of the outer lower section and is braced at points throughout its length by diagonal braces 16 which extend between the posts 10 and 13.

The posts of the different tower sections are preferably made of angle bars and the bracing members 14 and 15 for the inner section are secured to the outer faces of the posts 13, which latter present smooth inner faces serving as guides for the top or telescopic section.

This telescopic upper section is of pyramidal form except at its lower end and comprises angle-bar corner posts 18 united by horizontal and diagonal braces 19 and 20. At their lower ends these posts 18 are bent to present relatively short vertical portions 18' which fit snugly and slidably within the posts 13 of the guide section. At their upper ends the posts 18 fit within and are secured to a cap 21 which forms the top bearing for the shaft.

For raising and lowering the telescopic section, a pair of hand winches 22, of the usual construction, are mounted on opposite sides of the outer lower tower section, cables 23 leading upwardly from these winches over pulleys 24 mounted on the upper end of the lower section, downward around pulleys 25 on the bottom of the telescopic section and upward to connect to eyes 26 fixed on the top of the lower section. The telescopic section may be held in its raised position by suitable bolts passed through the members 13 and 18'.

The vertical car-supporting shaft is made up of three sections, a top section 28, an intermediate section 29, and a bottom section 30, the intermediate section 29 being united to the other sections by interlocking clutch elements 31 so that it may be readily removed, the length of this section corresponding to the length of telescopic movement of the upper tower section.

For supporting the cars, a socket head 32 is fixed to the shaft 28 above and slightly spaced from the cap 21 and is provided with socket elements 33, in which are freely seated the inner ends of rigid arms 34, which radi-

ate therefrom and are provided with caps 35 fitting freely over their outer ends. Tie rods 36 lead from these caps to a flanged member 37 fixed on the upper end of the shaft 28 (Fig. 2), these rods having hooked inner ends detachably engaging in holes 38 in the member 37. The caps 35 at the outer end of arms 34 have holes 39 formed therein to receive the upper ends of the rods from which the cars are suspended. These cars and their suspension rods have not been shown in the drawings, as they may be of any desired construction and do not form part of the present invention.

15 The lower section 30 of the shaft, which is comparatively short, seats in a socket bearing 40 bolted to the base of the device. This base is indicated generally by 41 and may be of any suitable construction, the 20 supporting wagon, indicated generally by 42, being here shown with a flat floor 43, on which the base 41 rests.

25 To secure the tower posts 10 to the base 41, the former are fixed, on that side of the tower which is above the rear end of the wagon, to castings such as 44 (Figs. 8-9) and on the side above the front end of the wagon to castings such as 44', the castings 44 and 44' being in the main of like construction and being all secured to the base 41 by means of bolts 45 projecting upwardly from the base 41 and having threaded thereon nuts 46 bearing on bottom flanges 47 on the casting 44. To facilitate the removal of 30 the tower from the base for transportation, each of the front castings 44' are formed with an eye-lug 48 at its lower end through which is inserted a bolt 49 carried in brackets 50 fixed to base 41.

35 40 Although the wagon 42 remains under the tower when the device is in use, the weight is carried, independently of the wagon running gear, by a removable substructure. This substructure comprises a number of 45 columns 52, which are of a height to reach from the wagon flooring 43 to the ground, four of which are positioned one under each corner of the tower and a fifth in the centre, as shown in Fig. 5. Extending outwardly 50 from these columns, in the manner indicated in Fig. 5, are a series of buttress members 53 which increase the base area of the tower and brace the latter against tilting movement. These buttress members 53 are 55 removably secured to the respective corner columns 52 by means of rods 54 (Fig. 7), which are passed downwardly through eye-members, 55 and 56, respectively fixed on the columns 52 and members 53. Extending 60 upwardly and inwardly from the outer ends of these buttress members 53 are struts 57 (Fig. 1) which are connected at their upper ends to the tower posts 10. These struts 57 may be removably secured to the tower posts 65 10 and members 53 by means of pins 58

passing through the ends thereof and through ears 59 fixed to said posts 10 and members 53.

The members 53 may be secured together by means of tie rods 60, arranged as indicated in Fig. 5, while the columns 52 may be likewise braced by tie rods 61. These tie rods 60 and 61 may be secured to the columns 52 and members 53 in any suitable manner, such as indicated in Figs. 6 and 7, by 70 brackets 62 and 63, respectively, which are secured to the column 52 and member 53 and receive pins 65 and 64 passed through the ends of the tie rods 60 and 61, respectively.

75 The car supporting shaft may be rotated by any suitable mechanism, a gas engine 67 being here shown as mounted on the base 41 and connected to a short horizontal shaft 68 by a belt 69, the shaft 68 being connected to the shaft section 30 by suitable reducing gearing, including the bevel gear and pinion indicated at 70 in Fig. 2, a combined brake and clutch 71 of ordinary construction being provided on shaft 68. The car supporting shaft is preferably braced at points 80 along its length by means of bearing sleeves 72, which are fixed on crossed braces 73, removably secured to the tower at their outer ends.

85 In dismantling the swing for transportation, the upper telescopic tower section is first raised by the winches 22 to permit of removal of the intermediate shaft section 29 and is then lowered into the lower tower section, the car supporting elements 34, 36 being removed. The columns 52 and bracing members 53 and 57 are then removed. The bolts 45 which secure the tower posts 10 to the base 41 are then loosened, permitting the 90 collapsed tower to be swung on the hinge bolts 49 to a horizontal position, its outer end resting on a second wagon placed in front of the wagon 42. In assembling the tower, the above operations are reversed.

95 It will be seen that a portable device of this class is provided which may be readily moved from place to place and set up easily and quickly in a simple manner.

What I claim is:

1. A portable riding device comprising a 100 vertical shaft having a removable section, car-supporting means mounted on said shaft, a tower forming an upper bearing for said shaft and comprising upper and lower sections, said lower section having a plurality of guides co-operating with said upper section for permitting telescoping of said upper and lower sections upon removing the section of the shaft.

105 2. A portable riding device comprising a vertical shaft, car supporting means mounted thereon, a tower forming an upper bearing for said shaft, said tower comprising upper and lower sections, the upper section 110 being telescopically mounted in a plurality 115 of

of parallel guides carried by said lower section, said shaft comprising upper, lower and intermediate sections, the said intermediate section being removable to permit telescoping of the tower sections.

3. A portable riding device comprising a vertical shaft having a removable intermediate section, car supporting means mounted thereon, a bearing tower for said shaft comprising a lower section having inclined walls, a parallel sided guide element fixed within the said lower section, and an upper section adapted for vertical adjustment in said guide element.

15 4. A portable riding device comprising a vertical shaft, car supporting means mounted thereon, a tower comprising a lower section having inclined walls, a parallel sided guide element fixed in said lower section, an upper section adapted for vertical movement in said guide element, and means for raising said upper section and holding it in raised position, said means comprising a pair of winches mounted on opposite sides 20 of the lower section, and cables leading from said winches around pulleys on the upper end of the fixed section and the lower end of the telescopic section, said cables being attached at their ends to the top of the lower section.

30 5. A portable riding device comprising a vertical shaft having a removable section, a bearing tower for said shaft comprising upper and lower sections, said lower section having a plurality of parallel guiding members mounted therein co-operating with said upper section for permitting telescoping of

the upper and lower sections upon removal of said section of the shaft, a base supporting said tower, means for hinging said tower 40 on one side thereof to said base, and mechanism for rotating said shaft located within said lower tower section.

6. A portable riding device comprising a vertical sectional shaft, a telescopic tower 45 forming an upper bearing for said shaft, a base for said tower, a wagon on which said base is fixed, and removable columns positioned under the corners of the base to support the same independently of the running gear of the wagon.

7. A portable riding device comprising a vertical sectional shaft, a telescopic tower forming an upper bearing for said shaft, a base for said tower, a series of columns positioned under the corners of the base, and buttress members extending outwardly from and removably connected to said columns.

8. A portable riding device comprising a vertical sectional shaft, a telescopic tower 60 forming an upper bearing for said shaft, a base for said tower, a wagon on which said base is fixed, a series of columns removably engaged under said base, buttress members extending outwardly from and removably 65 connected to said columns, and removable struts extending upwardly and inwardly from the said buttress members to the sides of the said tower.

Signed at New York city, in the county of 70
New York and State of New York this tenth
day of January, A. D. 1922.

FRANK L. UZZELL.