R. W. SMITH.

ROUNDABOUT.

APPLICATION FILED MAR. 16, 1914.

1,116,508.

Patented Nov. 10, 1914.

3 SHEETS—SHEET 1.

Fig. 1.

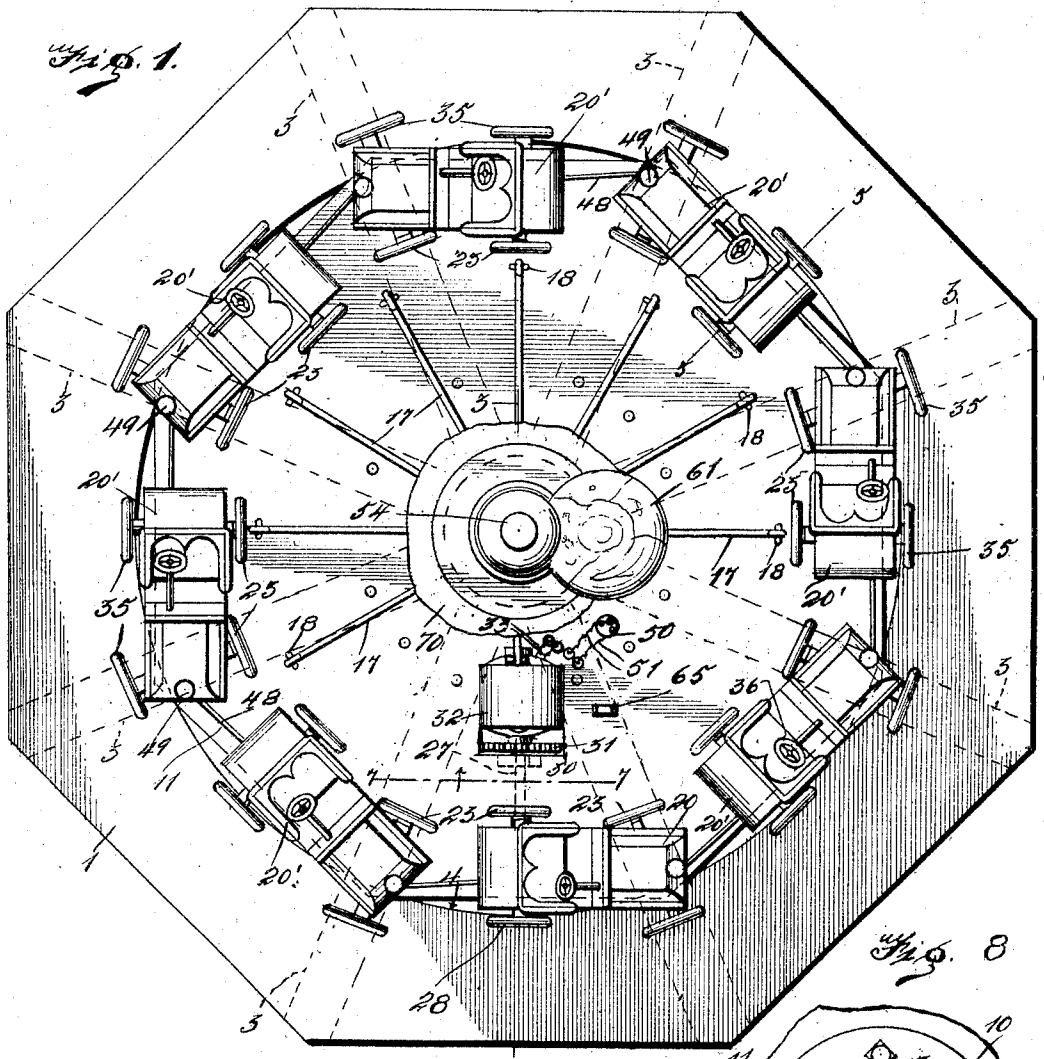


Fig. 8

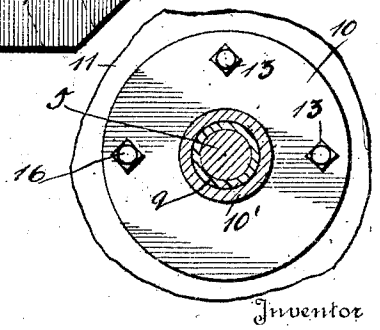
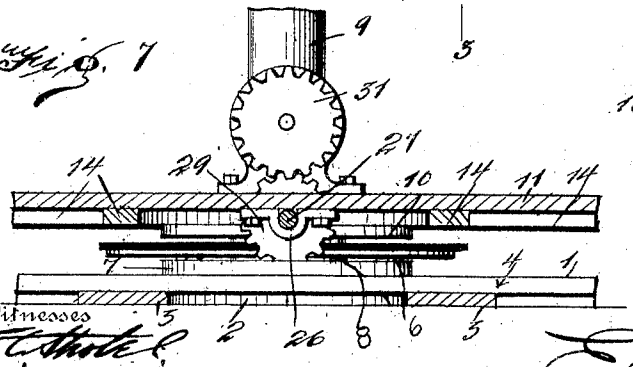


Fig. 7



Witnesses

Inventor

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By E. C. Crooman,

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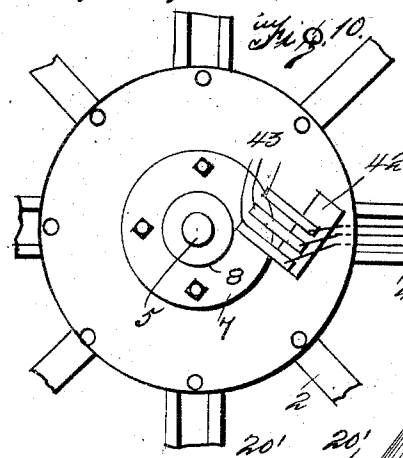
3 SHEETS—SHEET 2.

Fig. 10.



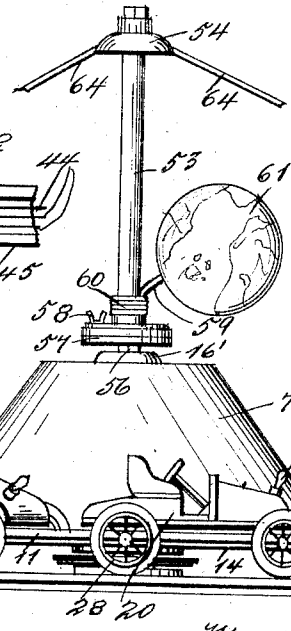


Fig. 12.

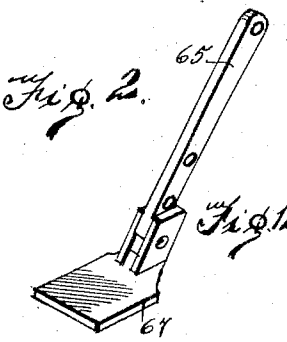


Fig. 9.

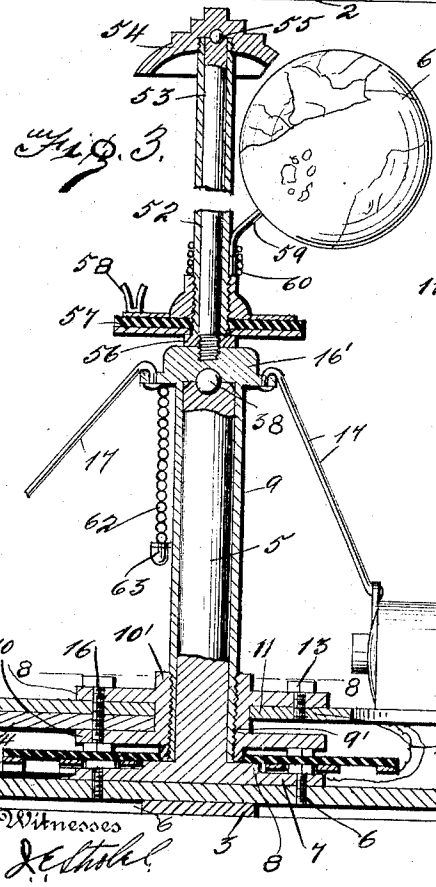


Fig. 3.

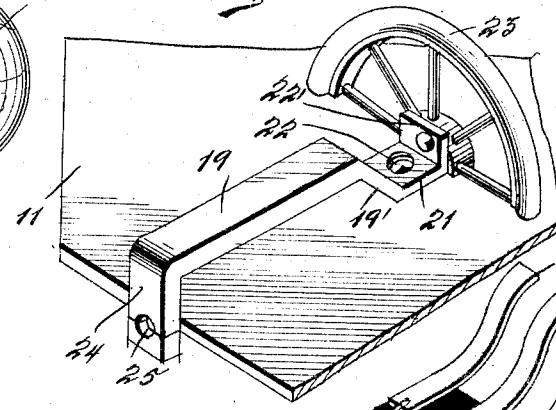
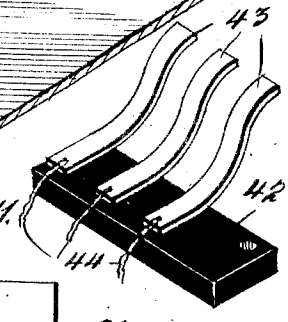
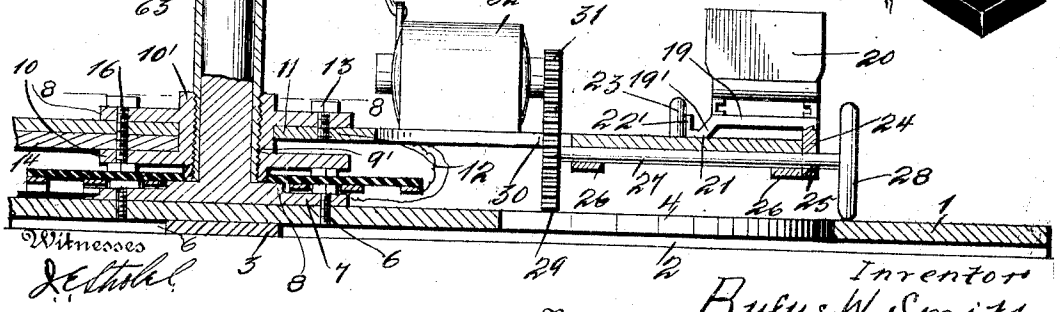


Fig. 11.





Witnesses

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3 SHEETS—SHEET 3.

Fig. 4.

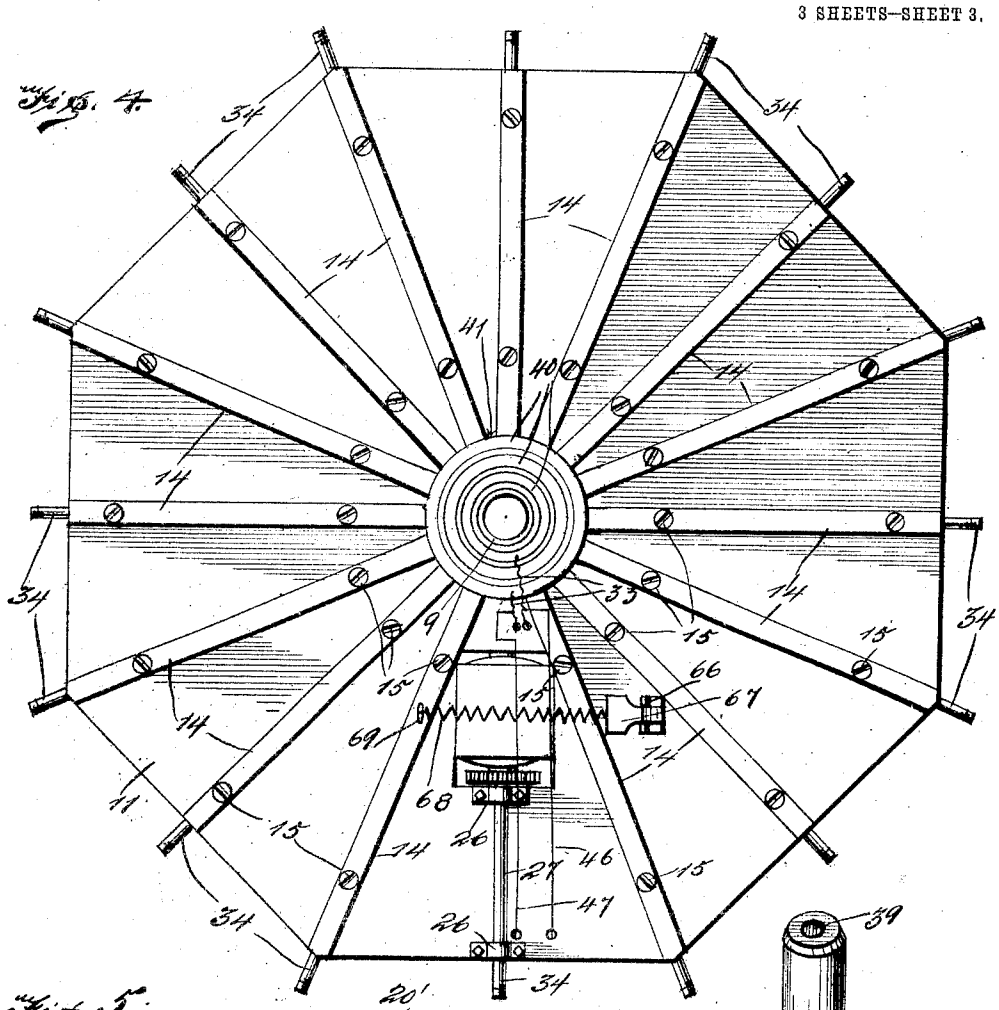


Fig. 5.

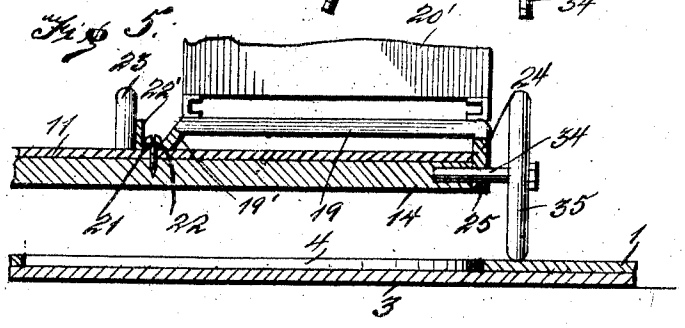
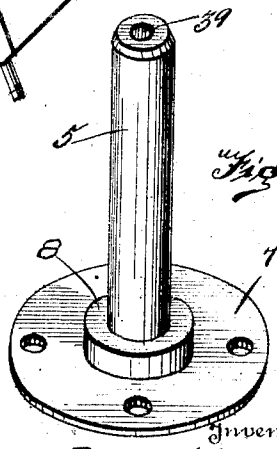


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

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ROUNDABOUT.

1,116,508. Specification of Letters Patent. Patented Nov. 10, 1914.

Application filed March 16, 1914. Serial No. 825,073.

To all whom it may concern:

Be it known that I, RUFUS W. SMITH, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Roundabouts, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a roundabout, and the principal object of the same is the production of a revoluble platform which is adapted to carry a plurality of cars in such a manner as to create the impression that the cars are running independently upon the stationary platform.

Another object of this invention is the production of a revoluble platform having a plurality of cars positioned upon its outer edge so that the supporting wheels of the cars may bear upon the stationary platform for carrying the weight of the revoluble platform and cars thereby holding this platform in its correct position.

Another object of this device is the production of a revoluble platform having a plurality of cars fixedly secured thereto, the rear axle of one or more cars being provided with a driving mechanism for moving a revoluble platform.

With these and other objects in view, this invention consists of certain novel combinations, constructions, and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is a top plan view of the complete roundabout. Fig. 2 is a side elevation of the same. Fig. 3 is a section taken on the line 3—3 of Fig. 1. Fig. 4 is a bottom plan view of the revoluble platform. Fig. 5 is a section taken on the line 5—5 of Fig. 1. Fig. 6 is a detailed perspective view of the central standard. Fig. 7 is a section taken on the line 7—7 of Fig. 1 looking in direction of the arrow. Fig. 8 is a section taken on the line 8—8 of Fig. 3. Fig. 9 is a fragmentary perspective view of a portion of the revoluble platform showing the form of axles used for supporting the cars. Fig. 10 is a top plan view of a portion of the stationary platform showing the brushes carried thereby. Fig. 11 is a perspective view of the brushes and insulating supporting block. Fig. 12 is a detailed perspective view of a certain brake which is used in connection with this device.

Referring to the accompanying drawings by numerals 1 designates the stationary platform which is preferably a polygon in shape and which is provided upon its under portion with a plurality of supporting beams 2. These beams 2 extend from the central portion of the stationary platform 1 and are cast so as to be integral with the plate 3. By providing the device with this stationary platform, the auto-go-round may be placed upon an uneven surface if necessary and operate as efficiently as if the device were placed upon a level or even surface. This stationary platform may also be provided with the cut-out portion 4 if so desired for reducing the weight of the device.

For the purpose hereinafter to be described, a central standard 5 is fixedly secured to the central portion of the stationary platform 1 by means of the bolts 6 which pass through the retaining flange 7 formed integral upon the lower portion of this central standard. This standard is also provided with an integral spacing block 8 formed adjacent the retaining flange 7 so as to allow the upper portion of this spacing block 8 to be positioned at a spaced distance above the bolts 6. A revoluble sleeve 9 is positioned over the central standard 5 and this sleeve 9 is provided at its lower portion with a threaded portion 9′ upon which a secondary sleeve 10′ is threaded, this secondary sleeve being provided with spaced flanges 10. The revoluble platform 11 which is similar in shape to the stationary platform 1 is positioned above the stationary platform 1 so as to allow the inner portion of the revoluble platform to fit between the spaced flanges 10 as shown at 12. A bolt 13 may be positioned through one of the flanges 10 so as to engage the revoluble platform 11 thereby fixedly securing the sleeve 9 to this platform 11. A number of brace arms 14 are positioned upon the under portion of the revoluble platform 11 and may be held in fixed engagement therewith by the suitable supporting means 15, these arms radiating from the central portion of the platform 11. The inner ends of these brace arms 14 are positioned within the flanges 10 so that the inner portions of the brace arms and revoluble platform will be positioned between these flanges thereby firmly and securely hold-

ing the arms and platform together at which time the bolt 16 may be passed through the flanges, platform, and brace arms, thereby forming a rigid structure. Since the flanges 10 extend for a considerable distance beyond the side portions of the block 8 they will efficiently brace the inner portions of the platform and brace arm and are held at a spaced distance above the bolts 6 by the spacing block 8. The upper portion of the sleeve 9 carries an integral collar 16′ to which the upper ends of the brace rods 17 are secured while the lower ends of the brace rods 17 are attached to the eyes 18 carried adjacent the outer portion of the revoluble platform 11, thereby efficiently bracing the outer portion of this platform. This collar 16′ bears upon the ball 38 which fits within the socket 39 of the standard 5 for reducing the friction. Furthermore, since the sleeve fits snugly upon the central standard 5 the ball bearing 5′ will reduce the friction as the device rotates and the brace rods will efficiently hold the revoluble platform in position and will prevent the same from wobbling. From the foregoing description it will be seen that the revoluble platform is so mounted as to efficiently rotate around the central standard 5 and will be securely held in its correct position.

For the purpose of providing suitable carrying means for the passengers there are preferably provided in this invention a plurality of automobiles. In forming the device so as to carry the bodies of these automobiles, the axles each comprise straight bodies 19 upon which bodies of the cars 20 and 20′ are placed. The inner end of each axle body 19 is provided with a diagonal depending plate 19′ terminating in an ear 21 having an upwardly extending lip 22′. The ear 21 is provided with securing means 22 for fixedly securing this axle to the revoluble platform 11. The half of a wheel 23 is carried by the lip 22, this wheel 23 resting upon the upper surface of the revoluble platform, as clearly disclosed in Figs. 5 and 9. The opposite end of the axle body 19 is provided with an integral depending finger 24 having an aperture 25 formed therein. This finger 24 is formed so as to overhang the upper edge of the revoluble platform 11 and depend for a spaced distance below the lower surface of the revoluble platform. A pair of bearings 26 are fixedly secured to the under surface of the revoluble platform 11 under one of the axles as above described and the driving shaft 27 passes through these bearings 26 and through the aperture 25 formed in the finger 24 whereby the outer end of the axle body 19 will be supported. A drive wheel 28 is carried upon the outer end of this drive shaft 27, as disclosed in Fig. 3. The inner end of this drive shaft 27 is provided with a cog wheel 29 passing through the opening 30 formed in the revoluble platform 11. This cog wheel 29 meshes with the cog wheel 31 carried by the motor 32, this motor 32 being fixedly secured to the upper portion of the revoluble platform 11. This motor is provided with wires 33 which wires are connected to a plurality of the rings 40 which are carried upon the insulating block 41, this block being fixedly secured to the lower surface of the platform 11, as shown in Fig. 4. The insulating block 42 is fixedly secured upon the platform 1 and carries the upwardly extending brushes 43, the brushes being adapted to engage the rings 40. A plurality of wires 44 are connected with the brushes 43, the wires extending through the trough 45 to a suitable electric source, not being deemed necessary to be herein shown. When the current is supplied to the motor by means of the wires 33 and 44 and the rings 40 and brushes 43 and the motor is running, the cog 31 will rotate the cog 29 whereby the shaft 27 will turn for rotating the drive wheel 28. Since this drive wheel rides upon the upper surface of the stationary platform 1 when it is turned by the shaft 27, it will, of course, draw the revoluble platform 11 around until the motor is stopped.

For the purpose of supporting the remaining automobile bodies 20′ the brace arms extend so as to allow the stub axles 34 formed at the outer ends to extend at each angle of the revoluble platform, and from the sides, intermediate the angles formed thereon. The usual axle body 19 is also carried above each one of the brace arms 14 so as to allow the fingers 24 to rest upon the stub axles 34 passing into the ends of the brace arms 14, as disclosed in Fig. 5. Each one of these stub axles 34 carries a supporting wheel 35 which are revolubly mounted thereon for supporting the upper portion of the revoluble platform and at the same time to give the effect of an automobile in motion. The car bodies are positioned upon the outer portions of the revoluble platform 11 so that the forward portion of each car body will be carried over one of the angular portions of the revoluble platform 11 so that it will appear that the front portion of the automobile body is swung outwardly over the stationary platform 1 as is the case when an automobile or car makes a turn. By fixedly securing the automobile bodies upon the outer portions of the revoluble platform, the supporting wheels 35 will prevent the platform from tipping while the drive wheel 28 will rotate the revoluble platform 11 and the sleeve 9 around the central standard 5. Furthermore, it will be noted by referring to Fig. 1 that the cars are positioned at a spaced distance apart so that a person may step upon the revoluble platform when

the revoluble platform is not moving for allowing the passengers to easily get into or out of the bodies of the automobiles or cars. These cars or automobiles may be provided with imitation steering gears 36 and with any other operating mechanism which may be desirable for allowing a person to imitate or experience something of the sensation of driving an automobile.

It is, of course, obvious that where it is desired the stationary platform may not be used and in this case the operation of the device without the use of the stationary platform, it will be necessary to provide an even surface for allowing the wheels 35 to run thereon. The flange 7 may be placed upon a support at which time the flange may be fixedly and securely retained in position thereby allowing the device to efficiently operate. Furthermore, it may be seen that any number of automobiles may be provided with a drive shaft 27 for rotating the revoluble platform 11, and it will also be seen that any simple car body or passenger carrying means may be employed without departing from the spirit of the invention since other passenger carrying means may be carried or supported upon the straight axles 19 without in any way departing from the spirit of this invention.

A wire 46 is attached to one of the wires 33 upon the under side of the revoluble platform 11 and extends so as to pass up out of the under portion of this revoluble platform. Another wire 47 extends so as to be attached to one of the rings 40 and at the opposite end is attached adjacent the wires 46. These wires 46 and 47 are connected to the conductor wire 48 which extends around the outer portion of the revoluble platform 11 and is connected to the lamps 49, which are carried upon the upper portion of the platform 11 and is provided with wires 51 which are connected to the wires 46 and 47 for allowing the current to be cut off from the wires when so desired. However, when this switch is thrown it will be seen that this current is passed through the wires 46 and 47 and conducted to the lamps 49 by means of the conductor wire 48. In this manner it will be seen that the auto-go-round will be efficiently lighted and will allow each automobile to be lighted substantially in a manner to a car.

A rod 52 is threaded into engagement with the upper portion of the collar 16′ and this rod 52 is adapted to rotate with the collar as the revoluble platform rotates. A cylindrical pipe 53 is positioned upon the outer portion of the rod 52 and this pipe 53 is provided with a cap 54 which bears upon the ball 55 thereby allowing the pipe 53 to freely rotate independently of the rod 52. The lower portion of this pipe 53 is provided with a flange 56 which supports a washer 57 upon which the fork 58 is carried. The angular wire 59 is bound upon the pipe 53 as disclosed at 60 for supporting a globe 61 above the revoluble platform and to one side of the pipe 53. If it is so desired, the chain 62 having a head 63 may engage the fork 58 thereby firmly holding the washer 57 and causing the same to rotate in the same direction as the platform 11. If it is so desired, the chain may be thrown from engagement with the fork 58 and the guide ropes 64 may be attached to any suitable object for holding the pipe 53 against rotation thereby causing the globe 61 to be held in a set position and allowing the automobiles to move thereabout, representing driving around the globe or world. It is, of course, obvious that a suitable canopy may be attached to the cap 54 when the device is set up and used as a passenger carrier.

It will be seen that after the current has been cut off and the motor has ceased to run, the momentum of the platform will cause the same to run for a considerable time, and, therefore, there is provided a brake arm 65 which is passed through the platform 11 and is secured to the bearings 66. The lower end of this brake arm 65 is provided with a brake beam 67 which is adapted to bear upon the stationary platform or supporting surface for causing the revoluble platform to be brought to a standstill as soon as desired. A coiled spring 68 is attached at one end of one of the arms 14 as shown at 69 and at the opposite end of the arm 65 thereby causing the brake shoe 67 to be automatically thrown from engagement with the support when it is desired to rotate the platform. This device is also provided with a hood 70 which fits about the sleeve 9 so as to incase the motor 32, brace rods 17, and other operating elements of this invention so as to present a pleasing appearance, as the unsightly objects will be covered. This hood is of sufficient size to allow the operator to have access thereto for operating the device.

It is, of course, obvious that the arms 14 may be positioned upon the round platform for supporting the cars, in place of using the polygon platform herein disclosed without departing from the spirit of the invention, and in this manner allow the front and rear wheels of the cars to travel in the exact manner as described by this invention. By allowing the arms 14 to radiate from the center of the platform it will be seen that they will diverge at their outer ends for allowing the wheels to be held in their correct position for moving around a fixed center. It will also be seen that this device is adapted to be used for carrying passengers, or the size thereof may be diminished for placing the same in a show window for

advertising purposes, at which time the canopy or other elements which would interfere with a clear view of the entire device might be removed and still maintain the spirit of the invention.

Having thus described the invention, what is claimed as new, is:—

1. In a device of the class described the combination with a stationary platform, a central standard fixedly secured to said stationary platform, a revoluble platform positioned upon said central standard, a plurality of cars positioned upon the outer portions of said revoluble platform, said cars provided with supporting wheels upon their outer portions, said supporting wheels adapted to ride upon said stationary platform, whereby said revoluble platform will be supported at its outer portion, and means for rotating said revoluble platform.

2. In a device of the class described the combination with a central standard, a sleeve positioned upon said central standard, a revoluble platform fixedly secured to said sleeve, brace rods connected to the upper portions of said sleeve and to the outer portions of said revoluble platform, a plurality of cars carried upon the outer portions of said revoluble platform, supporting wheels carried upon the outer portions of said platform adapted to rest upon a support, and supporting means for supporting said cars and the outer portions of said revoluble platform, and means for rotating said platform.

3. In a device of the class described the combination with a central standard, said standard provided at its lower portion with an integral spacing block, a sleeve rotatably mounted upon said standard, a revoluble platform fixedly secured to the lower portion of said sleeve, a plurality of brace arms fixedly secured to the under portion of said revoluble platform, stub shafts carried by the upper ends of said brace arms, axles positioned upon the upper portion of said revoluble platform, said axles carried at their outer ends upon said stub axles, imitation wheels fixedly secured to the inner ends of said axles, and a plurality of car bodies carried by said axles, said supporting wheels acting as the wheels of said car bodies, whereby the outer portions of said revoluble platform will be supported, and means for rotating said revoluble platform.

4. In a device of the class described the combination with a central standard, a revoluble platform carried by the lower portion of said standard, a plurality of axles carried upon said revoluble platform, each of said axles comprising a straight body, said straight body having at its inner end a depending diagonally extending plate, an ear integral with said plate and terminating at its opposite end in an integral lip, an imitation wheel secured to said lip, the opposite side of said body provided with a depending finger, stub axles carried by said revoluble platform and passing through said finger, supporting wheels carried by said stub axles, a plurality of car bodies carried by said axles whereby said car bodies will be held at a spaced distance above said revoluble platform, said supporting wheel adapted to rest upon a support so that the outer portions of said revoluble platform will be supported, and means for rotating one of said wheel supports, whereby said revoluble platform will be moved.

5. In a device of the class described the combination with a central standard, a revoluble platform carried by said standard, a plurality of bearings carried by the under portion of said revoluble platform, a driving shaft revolubly mounted within said bearings, a cog wheel fixed upon the inner end of said driving shaft and extending upwardly through said drive platform, means for engaging said cog wheel for rotating the same, a driving wheel fixedly secured upon the outer end of said drive shaft whereby said shaft may rotate said wheel, a plurality of stub shafts carried by said revoluble platform, supporting axles positioned upon the upper surface of said revoluble platform, said supporting axles fixedly secured at their inner end to said revoluble platform, said axles having a depending integral finger at their outer ends, said shafts passing through said fingers, supporting wheels carried upon said shafts, and a plurality of cars carried by said axles whereby said revoluble platform may be rotated so that said wheels may be moved to imitate the driving of a number of automobiles when said drive shaft is rotated.

6. In a device of the class described, a central standard, a revoluble platform carried adjacent the lower portion of said standard, said platform provided with a plurality of angularly formed sides, a plurality of brace arms fixedly secured to the under surface of said revoluble platform, said brace arms extending to the outer sides of said revoluble platform adjacent the corners thereof, and intermediate the corners, a plurality of shafts carried by said brace arms, supporting axles positioned upon said revoluble platform and carried by said shafts, a plurality of car bodies carried upon said axles, the forward portions of said cars adapted to overhang the corners of said revoluble platform thereby producing an effect similar to the turning of an automobile, supporting wheels carried upon said shaft and adapted to rest upon a support whereby the outer portions of said platforms will be supported, and means for rotating said revoluble platform.

7. In an auto-go-round the combination

with a central standard, a sleeve revolubly mounted upon said standard, a revoluble platform secured to the lower portion of said standard, a plurality of car bodies carried upon the outer portions of said revoluble platform, a plurality of wheels secured to the outer portion of said platform for supporting the same, said wheels constituting the wheels of said cars, means for driving said revoluble platform, a rod carried by said sleeve, a pipe positioned upon said rod, means for turning said pipe with said revoluble platform, said pipe being adapted to support a canopy.

8. In an auto-go-round the combination with a central standard, a sleeve revolubly mounted upon said standard, a revoluble platform secured to the lower portion of said standard, a plurality of car bodies carried upon the outer portions of said revoluble platform, a plurality of wheels secured to the outer portion of said platform for supporting the same, said wheels constituting the wheels of said cars, means for driving said revoluble platform, a rod carried by said sleeve, a pipe positioned upon said rod, means for holding said pipe in a set position as said platform revolves, said pipe being adapted to support a canopy.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

RUFUS W. SMITH.

Witnesses:
JNO. I. HINKLE,
J. W. SHIPMAN.