April 7, 1925. 1,532,595

G. L. McMANNIS.

MECHANICAL TOY

Filed April 9, 1923

FIG. 1.

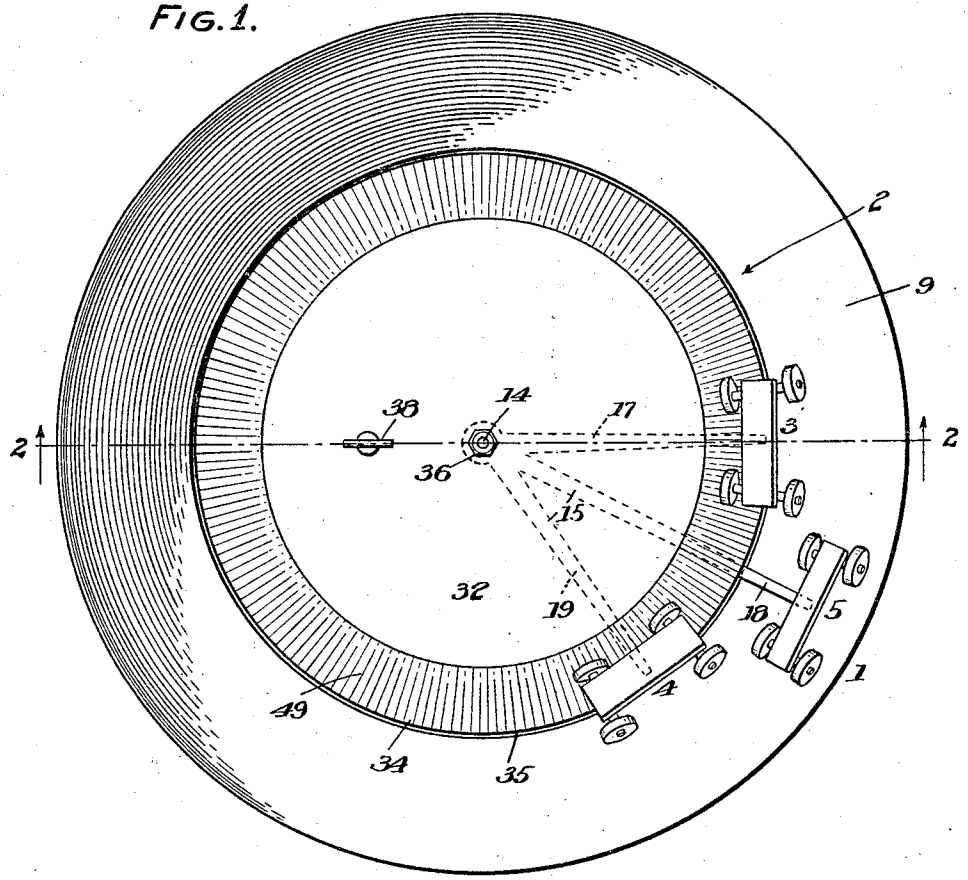


FIG. 2.

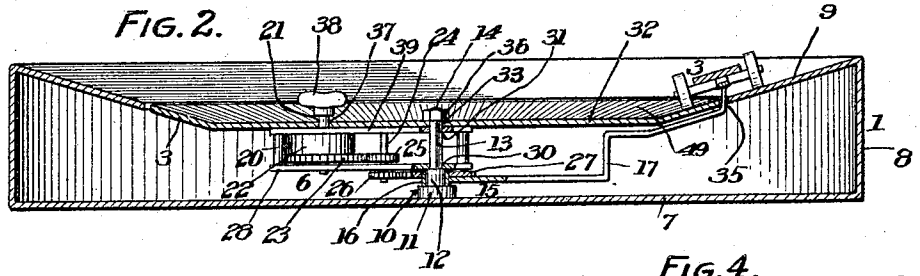


FIG. 3.

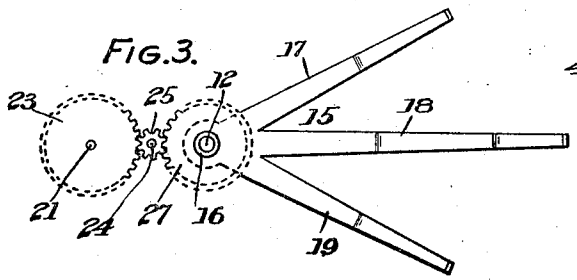
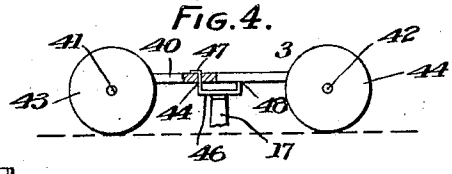


FIG. 4.



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Patented Apr. 7, 1925. 1,532,595

UNITED STATES PATENT OFFICE.

GEORGE L. McMANNIS, OF LOS ANGELES, CALIFORNIA.

MECHANICAL TOY.

Application filed April 9, 1923. Serial No. 630,847.

To all whom it may concern:

Be it known that I, GEORGE L. McMANNIS, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Mechanical Toys, of which the following is a specification.

My invention relates to toys and the main object thereof is to provide a toy racing machine representing an automobile race, which will be attractive, interesting and instructive to children. My toy is constructed so that the automobiles when running around the race track will make a noise like the exhaust of automobiles.

Other objects and advantages will appear hereinafter, and while I show herewith and will describe a preferred form of construction, I desire to be understood that I do not limit myself to such form but that various changes and adaptations may be made therein without departing from the spirit of my invention as hereinafter claimed.

My objects are attained by the device illustrated in the accompanying drawing in which,

Fig. 1 is a plan view of my toy automobile racing machine.

Fig. 2 is a transverse vertical section of my toy taken on line 2—2 of Fig. 1.

Fig. 3 is a plan view of the gearing and arms for driving the toy automobiles.

Fig. 4 is a side elevation partly in section of one of the toy automobiles.

My toy comprises generally a circular casing 1, a circular inclined race track 2, toy automobiles 3, 4 and 5 and clock works 6 for driving said automobiles around said race track. The casing 1 comprises a bottom flat wall 7, a vertical circular wall 8 upstanding from said bottom wall and an internal annular flange 9 inclined downwardly from the upper edge of said vertical wall, said flange forming the outer and upper member of the track 2.

A vertical center post 10 is formed with a base 11, a vertical journal 12 extending upwardly from said base, a square standard 13 upstanding upwardly from said journal and a threaded upper end 14 at the top of said standard. The post 10 is mounted in the casing 1 with its base 11 secured to the bottom of said casing. A multiple arm 15 is formed with a bearing 16 at its inner end which turnably fits on the journal 12 and rests upon the upper edge of the base 11 of the post 10. The arm 15 as shown comprises three arm members 17, 18 and 19, but may include a smaller or larger number of arm members if desirable. The clock works 6 may be of any suitable construction, but as shown it includes a frame 20, a main spring shaft 21, a main spring 22, a main spring gear 23, an idler shaft 24, idlers 25 and 26 and gear 27. The frame 20 includes a lower plate 28 and an upper plate 29 provided with square apertures 30 and 31 respectively through which extends the square standard 13 of the center post 10 whereby clock works is secured stationary against turning on the center post.

A disk 32 rests upon the upper plate 29 and is provided with a square central opening 33 through which the upper end of the square standard 13 extends, whereby said disk is prevented from turning. The disk 32 is formed with an upwardly inclined peripheral flange 34, the outer peripheral edge of which flange rests adjacent the inner edge of the flange 9, leaving a circular slot 35 between said edges of said flanges, through which slot extends the outer ends of the arm members 17, 18 and 19. The flange 34 forms the inner annular member of the track 2.

A nut 36 screws on the upper threaded end 14 of the post 10 against the upper face of the disk 32 and holds said disk in position on the upper end of standard 13 against the upper plate 29 of the clock works frame 20. The said disk 32 is provided with an apertures 37 through which the main spring shaft 21 extends, there being a key 38 on the upper end of said shaft above said disk for winding the spring 22. The shaft 21 is journaled in the frame plates 28 and 29. The spring 22 is mounted on said shaft and secured at one end to said shaft and at its other end to frame 20 in the usual manner for driving the gearing of the clock works 6. The gear 23 is secured on the shaft 21 in mesh with the idler 25 which is secured on the idler shaft 24.

The idler 26 is also secured on said idler shaft 24 in mesh with the gear 27 which is secured on the arm bearing 16.

The automobiles 3, 4 and 5 comprise each a body plate 40, front and rear axles 41 and 42 secured to front and rear ends respectively of said plate, and front and rear wheels 43 and 44 journaled respectively on

said axles. The body plate 40 is provided with a slot 45 through which one arm of a V-shape strap 46 extends upwardly with its upper end 47 bent at right angles against the upper side of said plate. The upper end of the other arm of said strap is soldered or otherwise secured at 48 to the under side of the plate 40. The arm members 17 and 19 extend vertically through the slot 35 and are soldered or otherwise secured to the intermediate member of the straps 46 on the under side of the body plates 40 of automobiles 3 and 4 respectively, so that said automobiles are positioned with one front and one rear wheel on the track member 9 and with their other front and rear wheels on the track member 34. The track member 34 is formed with corrugations 49 which extend lengthwise radially to the center of the disk 32. The arm member 18 extends upwardly through slot 35 and outwardly over track member 9 and is secured at its outer end to the intermediate member of strap 46 of the automobile 5 so that the wheels of said automobile rest entirely on the track member 9.

The position of the automobiles is such that the automobiles 3 and 4 rest on the inner part of the track 2, while the automobile 5 rests on the outer part of the track outwardly from the automobiles 3 and 4. All three of the automobiles are inclined inwardly with the inclination of the track 2 and assume positions on the track like real racing automobiles.

The automobiles are driven around the track 2 by the clockworks 6 through the medium of the arm 15 and the inner wheels of the automobiles 3 and 4 traveling over the corrugations 49 make a noise like automobile exhausts.

While I have shown automobiles on the track, I do not confine my invention to such devices, inasmuch as other devices such as toy horses, bicycles and the like could be substituted for the automobiles.

Having described my invention, I claim:

A toy racing machine comprising a circular casing formed with an internal downwardly inclined flange, a disk mounted within said flange and formed with an upwardly inclined flange resting at its edge adjacent the inner edge of said first inclined flange, leaving an annular slot between the adjoining edges of said flanges, said flanges forming a race track, racing devices mounted on said track and resting on both of said flanges, means for driving said devices around said track, one of said flanges being formed with an irregular surface so that contact therewith by said devices makes a noise.

GEORGE L. McMANNIS.