Aug. 29, 1967 F. W. GEHRING 3,338,593

AMUSEMENT VEHICULAR DEVICE HAVING OCCUPANT WITHIN A HOOP

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Fig. 1

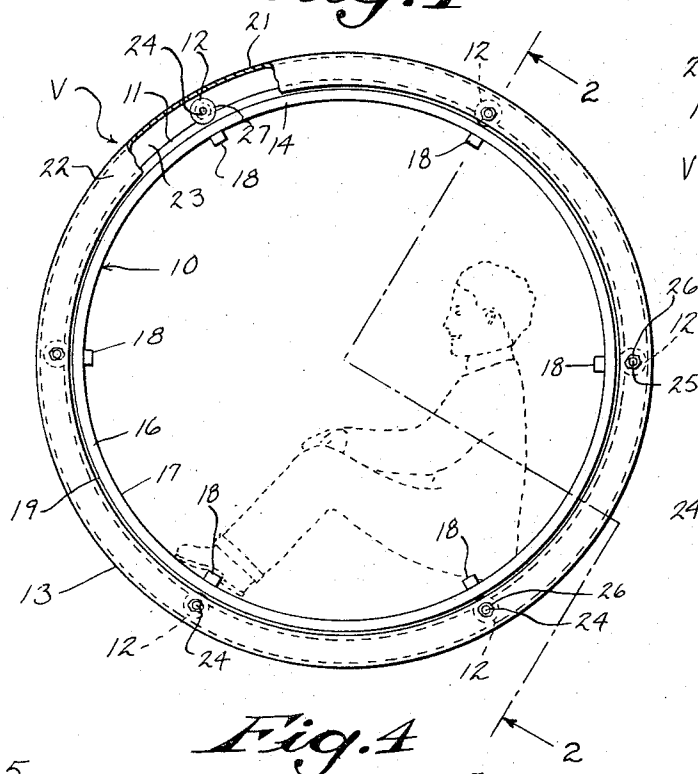


Fig. 2

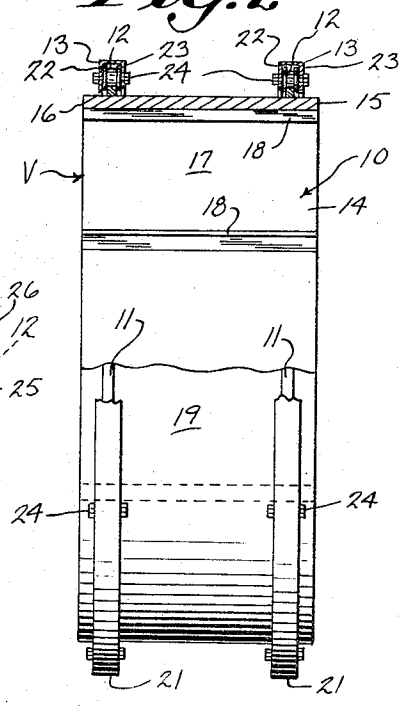


Fig. 4

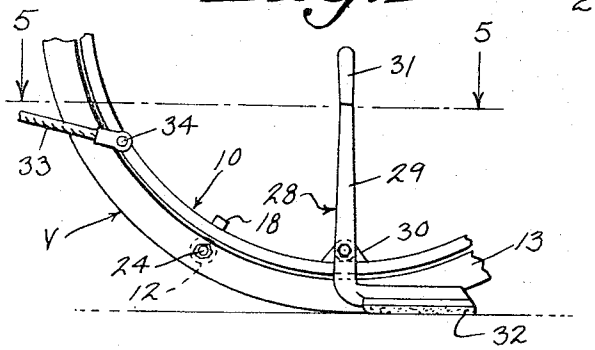


Fig. 3

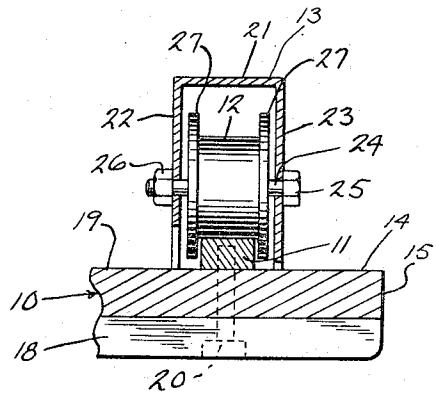
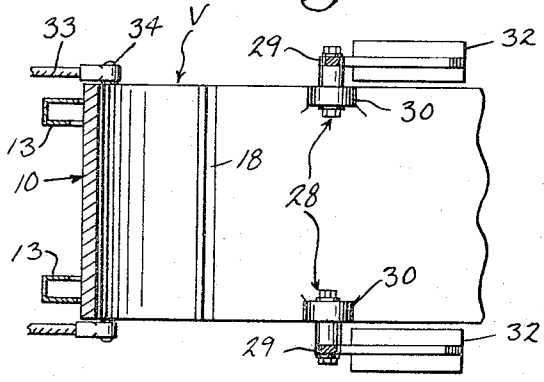


Fig. 5



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AMUSEMENT VEHICULAR DEVICE HAVING OCCUPANT WITHIN A HOOP

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ABSTRACT OF THE DISCLOSURE

An amusement device for carrying a person within the confines of a substantially stationary cylindrical sleeve and hoop. The cylindrical sleeve and hoop being of a transparent plastic and comprising an inner main frame so that a person sitting within the hoop may have all parts of his body within the peripheral outer edges thereof, and the hoop carrying a pair of spaced parallel tracks about its outer surface mounted for independent rotation with relation to the hoop. Guiding, braking and controlling means in the nature of a pivoted lever, and ground engaging shoes mounted on both sides of the hoop operable by the person seated within the hoop so that he may control the motion and direction of the device.

My invention appertains to amusement devices and more particularly to new and useful improvements in a cylindrical vehicular device.

My invention is in the nature of a donut toy wherein a person may ride in a substantially upright position while the toy or vehicle is in motion. Prior to my device, there have been many attempts to provide such a vehicle, but most of these have been in the nature of unicycles wherein an individual is seated within one wheel and an outside wheel rolls about the inner wheel. Most of these prior devices, to my knowledge, have been inherently dangerous in that they were difficult to control, and parts of the body of the person utilizing the device protruded beyond the device. This subjected the individual to injury and the like.

It is, therefore, a primary object of my invention to provide an amusement device of the above character incorporating safety features which will greatly reduce the element of damage and injury to the occupants.

Another important object of my present invention is to provide an amusement device in the nature of a cylindrical vehicle which carries a person in an upright position in such as a manner that the individual is substantially in control of the vehicle at all times.

A further object of my present invention is to provide a cylindrical vehicular device for amusement purposes, wherein the main frame is in the nature of a relatively wide cylindrical sleeve or hoop, which is completely transparent so that an individual utilizing the device may at all times see where he is going and guide the vehicle accordingly.

A salient feature of my invention resides in providing the main frame or body of such a width that a person seated within the cylindrical sleeve may keep all parts of his body within the confines of the sleeve and thus be protected from injury when passing objects or colliding with the same.

Still another object of my invention is to provide an amusement vehicle in the nature of a donut toy which can be pushed, pulled or independently operated and which will provide amusement and thrills to the user.

A still further object of the invention is to provide an amusement vehicular device in the nature of a dual cycle having two runners for better support, balance and control.

Another important object of my invention is to provide an amusement vehicular device which is simple in construction, reliable in its operation and not liable to get out of order.

With these and other objects in view, and to the end of attaining any other advantage hereinafter appearing, this invention consists in certain features of construction, combination and arrangement of parts hereinafter described, pointed out and claimed, and illustrated in the accompanying drawing, in which drawing,

FIGURE 1 is a side elevational view of my amusement device, certain parts being broken away and in section to illustrate details in its construction;

FIGURE 2 is an end elevational view in perspective, certain parts being broken away and in section, the section being represented by the line **2—2** in FIGURE 1, looking in the direction of the arrows;

FIGURE 3 is an enlarged fragmentary transverse section through one of the runners and tracks and illustrating features in the frame construction;

FIGURE 4 is a fragmentary side elevational view illustrating how various attachments and adjuncts may be incorporated into the device, and

FIGURE 5 is a fragmentary transverse section taken on the line **5—5** of FIGURE 5, looking in the direction of the arrows.

Referring now to the drawings in deail, wherein similar reference characters designate corresponding parts throughout the several views, the letter V generally indicates my novel amusement vehicular device, and the same includes broadly an inner frame member **10** in the nature of a cylindrical sleeve or hoop and this frame carries a pair of spaced parallel tracks **11** about which are positioned spaced rollers **12** secured within the runner **13**. The inner frame **10** is, as previously mentioned, cylindrical in shape and in the nature of a sleeve or hoop **14** and preferably made from a clear transparent plastic or from other material having sufficient strength to carry a person therein and to have secured thereto the aforementioned tracks **11** for the rollers and runners. It is also important that this sleeve or hoop **14** be of sufficient width so that when a person is seated therein substantially as shown in dotted lines, FIGURE 1, his arms and legs can be confined completely within the outer peripheral edges **15** and **16** respectively of the sleeve.

At spaced intervals within the inner surface **17** of sleeve **14**, I provide spaced reinforcing cross-bars **18** and these bars not only add strength structurally but may be utilized by a person seated within the sleeve for properly positioning and to keep the person from slipping or sliding within the sleeve. The spaced tracks **11** are secured about the outer surface **19** of the frame **10** in spaced parallel relation and are preferably formed from substantially rectangular strips of relatively hard material capable of withstanding the wear from the rollers **12**. These strips may be secured to the outer periphery in any desired manner but preferably are bolted in place (FIGURE 3) as shown and represented by the dotted lines. These bolts **20** are preferably utilized for securing both the cross-bars and tracks in place. This gives added strength both in holding the cross-bars and tracks.

In order to maintain the inner cylindrical sleeve or hoop **14** in a substantially stationary position so that a person that is utilizing the device will remain upright, I provide the outside spaced runners **13** and these runners are substantially U-shaped as shown and may be constructed from a light gauge hardened steel to provide a horizontal surface **21** which contacts the ground as the vehicle rolls along. For supporting the rollers **12**, the runners are also provided with the side vertical walls **22** and **23** respectively, and the outside wall **23** preferably terminates in close proximity to the outer surface **19** of the sleeve or hoop **14**, thus preventing individuals using the device from

accidentally getting fingers caught in the tracks or rollers.

The rollers **12** therefore may be provided in any desired number and are carried by the runners in spaced relation and should be of a sufficient number to support the weight of the frame and an individual or individuals seated within the frame. In any event, each roller includes an axle and this axle **24** extends across the inside of the runners from wall **22** to wall **23** and in its simplest form this axle could be merely a headed bolt **25** carrying on its inner end a threaded nut **26**. The roller, of course, has a surface engaging the surface of the track and is provided with end flanges **27** which engage the vertical edges of the track **11** and thus maintain the runners from shifting transversely and from becoming disengaged from their respective tracks.

From the description thus far, it can be seen that a person may position himself within the cylindrical sleeve or hoop **14**, substantially as shown in FIGURE 1 of the drawings, and utilize my device by using one or more of the cross-bars **18** to steady himself within the frame and then may be pushed or pulled, or by using a hill or incline may roll freely while maintaining an upright position. The runners **13**, of course, being independently rotatable in relation to the frame **10'**. My novel amusement device can be easily guided by shifting weight to one runner or the other and due to the fact that the frame is clear and transparent the occupant can see at all times where the device is headed and may alter the course of the same if danger is apparent.

In order to add additional safety to the device, as well as to give a greater control over the motion and direction of the vehicle, I may provide a brake and guiding assembly **28** and this assembly is clearly illustrated in FIGURES 4 and 5 of the drawings. In its simplest form the brake assembly **28** includes a pair of spaced upright levers **29** which are positioned adjacent the outer edges **15** and **16** of the frame **10**. These levers **29** are pivoted to upstanding ears **30** which may be formed integral with the frame **10**. The upper end termination of each lever is formed in the shape of the handle **31** and the lower end termination extends at right angles to the main portion of the lever **29** and carries a brake shoe **32** which engages the ground and supporting surface. Thus, it can be seen that an occupant can grasp one handle **31** in his right hand and the other in his left hand and by pulling back on one lever or the other pressure will be exerted through the brake shoe **32** and the vehicle will tend to turn in that direction. If both levers are pulled back at the same time both shoes will engage the ground or surface and the vehicle will be brought to a halt or stop. Assembly **28** therefore acts both as a brake and extra guiding means and gives a desired control over the device.

I may also provide a means for pulling the vehicle and this can take any form, but as shown, includes a cable **33** which is pivotally secured at **34** to the peripheral edges **15** and **16** respectively. These cables when not used to pull the vehicle may be pivoted back and placed within the surface **17**.

If desired I could provide a rigid handle in the form of a loop spaced from the runners **13** so that the handle will not come in contact with the runners.

It should also be stressed that the two spaced parallel runners give decided advantages over the unicycle type of vehicle, in that, this provides in effect a dual cycle giving added balance, support and control to the operator, and it is again stressed that if desired two or even more persons could utilize the device at the same time.

Thus, it can be seen that I have provided a novel amusement vehicle which may be used by one or more persons and which will maintain the occupants at all times in an upright position and which provides the utmost in safety. However, it is possible in rolling down hill to rock the cylinder and even tumble the same over and over. For this purpose a handle (not shown) could be affixed to the inside of the cylinder to aid in rotating and tumbling the cylinder. It should also be readily apparent that my device may be made in different sizes, for children and/or adults, but in each size the main frame **10** should be of sufficient width so that a person seated therein may confine all parts of the body within the peripheral edges of the frame.

From the foregoing it is believed that the features and advantages of my present invention will be readily apparent to those skilled in the art, and it will of course, be understood that changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit of the invention or scope of the appended claims.

I claim:

1. An amusement vehicular device including, an inner main frame in the nature of a cylindrical sleeve or hoop of a size and configuration to completely confine the body of the user within its peripheral edges, transversely extending reinforcing cross-bars secured in spaced relation to the inner surface of said main frame, a pair of spaced parallel tracks secured about the outer surface of said main frame, a pair of ground engaging runners, each runner being associated with a respective track and carrying spaced rollers in contact with said track, means for guiding, braking and controlling the direction and motion of said device, said runners being freely mounted in relation to said frame, whereby a person may ride the vehicle within the confines of its peripheral edges in a substantially upright position.

2. An amusement vehicular device as set forth in claim **1**, wherein said cylindrical sleeve or hoop is constructed from a transparent clear plastic material and wherein said means for guiding, braking and controlling the motion of the vehicle includes a pair of spaced upright levers pivotally mounted to said frame and each positioned adjacent a peripheral edge thereof, each lever carrying a ground engaging shoe at its lower end termination and a handle at its upper end termination, whereby a person seated within the vehicle may control the direction of the vehicle by placing pressure on a ground engaging shoe and may brake the vehicle by simultaneously placing pressure on both shoes.

3. An amusement vehicular device as set forth in claim **1**, wherein means is provided and associated with said main frame for pulling said vehicle.

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