March 12, 1963 J. L. BROWN 3,080,584

GLIDE VEHICLE

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Fig-1



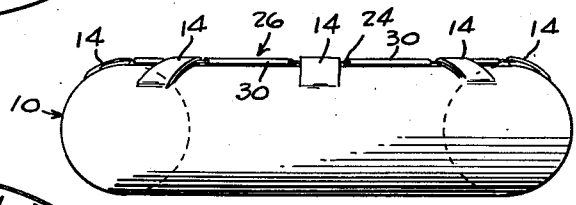


Fig-2

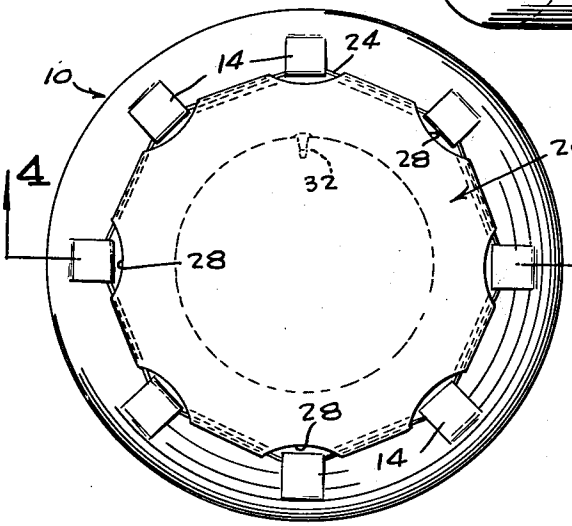


Fig-3

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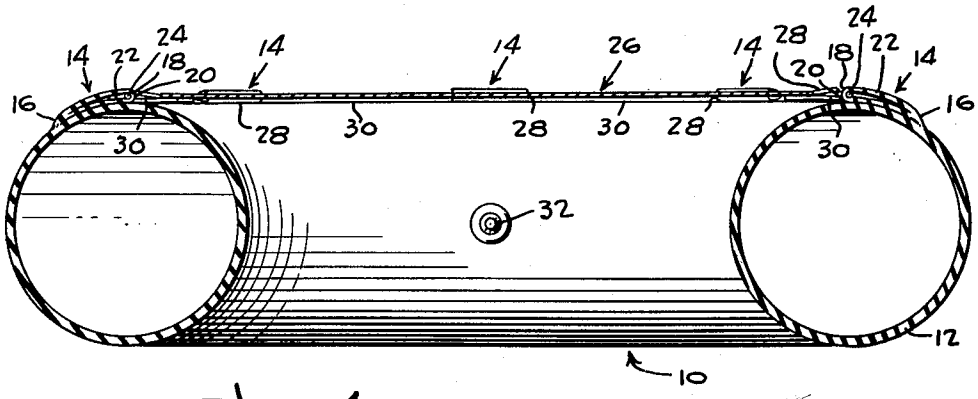


Fig-4

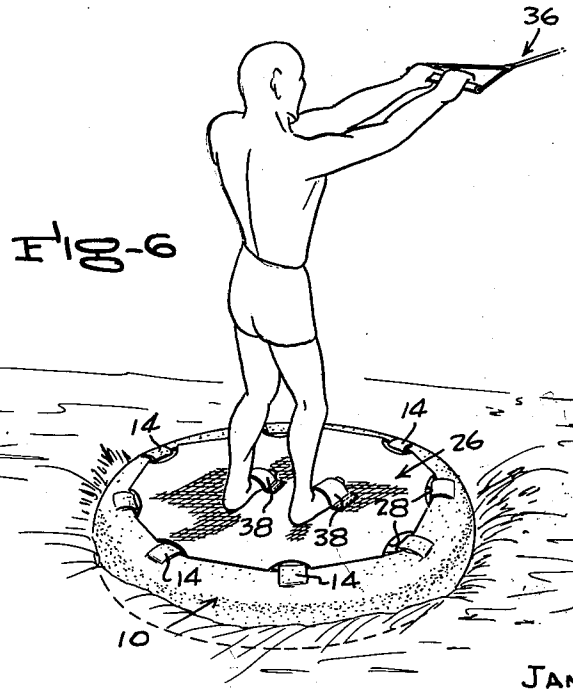
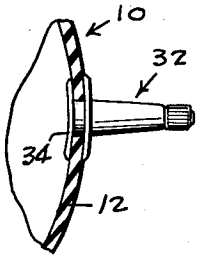


Fig-6

Fig-5



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GLIDE VEHICLE

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3 Claims. (Cl. 9—11)

This invention relates to improvements in pleasure vehicles for gliding on surfaces, and more particularly to a novel glide vehicle of this kind for use in winter and water sports.

The primary object of the invention is the provision of a safe device of the kind indicated which is primarily designed for use by one or two children or adults for coasting down snow or ice-covered hills and for gliding over snow or ice and water when towed, the device having sufficient buoyancy in water to support its rider or riders and serve as a diving platform.

Another object of the invention is the provision of a highly attractive and fun-producing device of the character indicated above, which can safely and comfortably operate upon uneven surfaces, such as rough or rock-strewn hillsides or open fields, without danger of capsizing.

A further object of the invention is the provision of a simple, inexpensive, lightweight, and easily portable device of the character indicated above, which involves a flexible and resilient inflated ring which is adapted to be deflated to reduce the bulk of the device, for easy portability and storage, and a flexible seat which is stretched across the ring, and has portions which serve as handholds for the rider or riders of the device.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein, for purposes of illustration only, a specific form of the invention is set forth in detail.

In the drawings:

FIGURE 1 is a schematic perspective view showing a rider gliding down a hillside in a device of the present invention;

FIGURE 2 is an edge elevation, on an enlarged scale, of said device;

FIGURE 3 is a top plan view of FIGURE 2;

FIGURE 4 is an enlarged transverse vertical section taken on the line 4—4 of FIGURE 3;

FIGURE 5 is a further enlarged fragmentary vertical transverse section taken on the line 5—5 of FIGURE 4;

FIGURE 6 is a schematic perspective view showing a rider holding a tow line for gliding the device over water.

Referring in detail to the drawings, the illustrated device comprises an inflatable tubular ring 10 of circular or cylindrical cross section, and made of flexible and resilient material, such as rubber or plastic material. The dimensions of the ring 10 can vary in accordance with the weights and sizes and numbers of riders to be accommodated. Optimum dimensions of the device, for use by one or more children or a single adult would approximate an over-all diameter of four feet, and a cross section of twelve inches.

At a multiplicity of equally spaced intervals around the ring 10, the top of the ring side wall 12 is formed with upstanding, radially elongated rectangular flat ribs 14, which are fared, as indicated at 16, at their outer ends, into the upper part of the outer side of the ring sidewall 12. The ribs 14 increase in vertical thickness or flair from their outer ends inwardly, and have maximum cross section inner ends 18, which are located approximately on the vertical centerline of the ring, as shown in FIGURE 4. The inner ends 18 are rounded, as indicated

at 20. The ribs 14 are formed with transverse openings 22 which extend to the opposite sides of the ribs.

The openings 22, as shown in FIGURE 4, are inwardly flared and increase in vertical dimension from their outer ends to their inner ends. The ribs 14 are preferably integral with and of the same material as the tube side wall 12, but can be separately attached thereto. The ribs are in any case of limited flexibility and of adequate strength, obtained through adequate cross section or choice of material.

A non-stretch flexible cord or cable 24 extends through the rib openings 22 and is stretched taut and under tension so that it bears against the inner ends of the openings 22, the ends of the cord or cable being securely connected together, in suitable manner (not shown).

A flexible circular seat 26, made of suitable flexible, non-stretch sheet material, such as indurated canvas, is formed in its peripheral edge, with regularly spaced scallops 28, which are wider than and correspond in number to the ribs 14, and are centered relative to and clear the ribs. The material of the seat between adjacent scallops 28, is suitably formed into chordally disposed tubes 30, with related portions of the cord or cable 24 passed therethrough, for connecting the seat 26 flexibly to the ring 10.

The inherent flexibility of the seat 26, and its flexibility relative to the tube 10, and the resilience and compressibility of the tube combine to enable the device to comfortably and harmlessly support a rider or riders, as the device, whether travelling by momentum down a hillside or pulled along a surface, despite passage of the vehicle over such obstructions as rocks, ice hummocks, and the like. In negotiating rough surfaces, the rider or riders has available, as handholds, the scallops 28, as indicated in FIGURE 1.

Inflation of the tube 10 is accomplished by the injection of air into the tube through a conventional tire-type valve 32, which is secured through the inner side of tube side wall 12, as indicated at 34. For deflating of the tube 10 the valve 32 is held open in the well known manner, until the tube has been sufficiently deflated to be foldable, along with the seat 26, for easy portability and storage, in a compact form.

The inflated ring 10 provides sufficient buoyancy in water W, as shown in FIGURE 6, to support the device and a rider above the water, so that the device can be glided over the water, with the rider holding to a towline 36; or the device can serve as a diving platform. Foot straps 38 laterally spaced at the center of the seat 26, can be secured upon the upper surface of the seat, as shown in FIGURE 6, to accommodate the feet of the rider.

Although there has been shown and described a preferred form of the invention, it is to be understood that the invention is not necessarily confined thereto, and that any change or changes in the structure of and in the relative arrangements of components thereof are contemplated as being within the scope of the invention as defined by the claims appended hereto.

What is claimed is:

1. A glide vehicle comprising an inflated flexible tubular ring, circumferentially spaced radial ribs on the top of the ring, said ribs having transverse openings extending therethrough, a flexible sheet material seat spanning the opening of the ring and having circumferentially spaced chordal tubes on its peripheral edge, the chordal tubes being located between adjacent ribs, and an endless cord extending through the openings of the ribs and the chordal tubes, the peripheral edge of the seat being formed with circumferentially spaced scallops aligned with and out of contact with the ribs to serve as handholds.

2. A glide vehicle comprising an inflated flexible tubu-

lar ring, circumferentially spaced upstanding radial ribs on the ring extending to the top of the ring, said ribs having transverse openings extending therethrough, a flexible sheet material seat spanning the opening of the ring and having circumferentially spaced chordal tubes at its peripheral edge, the chordal tubes being located between adjacent ribs, and an endless cord extending through the openings of the ribs and the chordal tubes, said ribs having inner ends on the top of the ring and having outer ends fared into the tube, said ribs increasing in vertical dimension from their outer ends to their inner ends, said rib openings being flared in vertical dimension from the outer ends to the inner ends of the ribs.

3. A glide vehicle comprising an inflated flexible tubular ring, circumferentially spaced upstanding radial ribs on the ring extending to the top of the ring, said ribs having transverse openings extending therethrough, a flexible sheet material seat spanning the opening of the ring and having circumferentially spaced chordal tubes at its peripheral edge, the chordal tubes being located between adjacent ribs, and an endless cord extending through the openings of the ribs and the chordal tubes, said ribs having inner ends on the top of the ring and having outer ends fared into the tube, said ribs increasing in vertical dimension from the outer ends to their inner ends, said rib openings being flared in vertical dimension from the outer ends to the inner ends of the ribs, the inner ends of the ribs being on the vertical centerline of the cross section of the tube.

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