

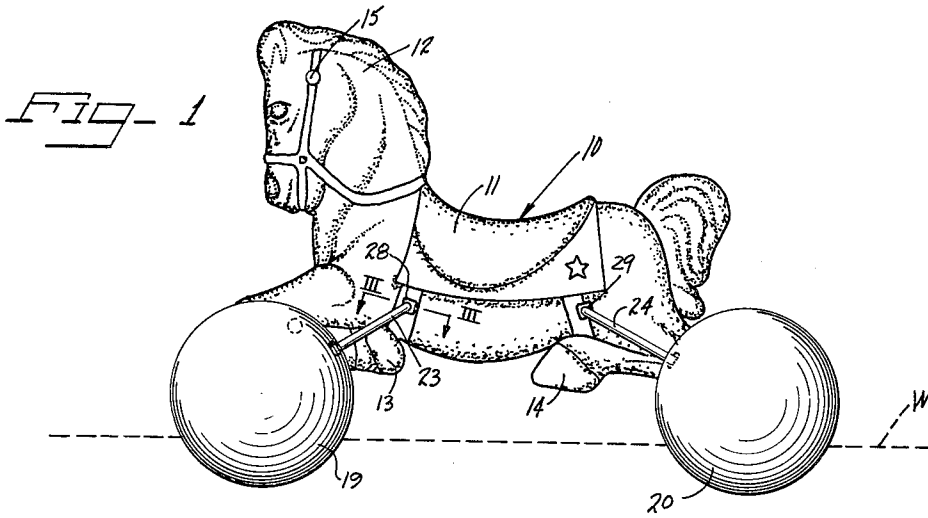
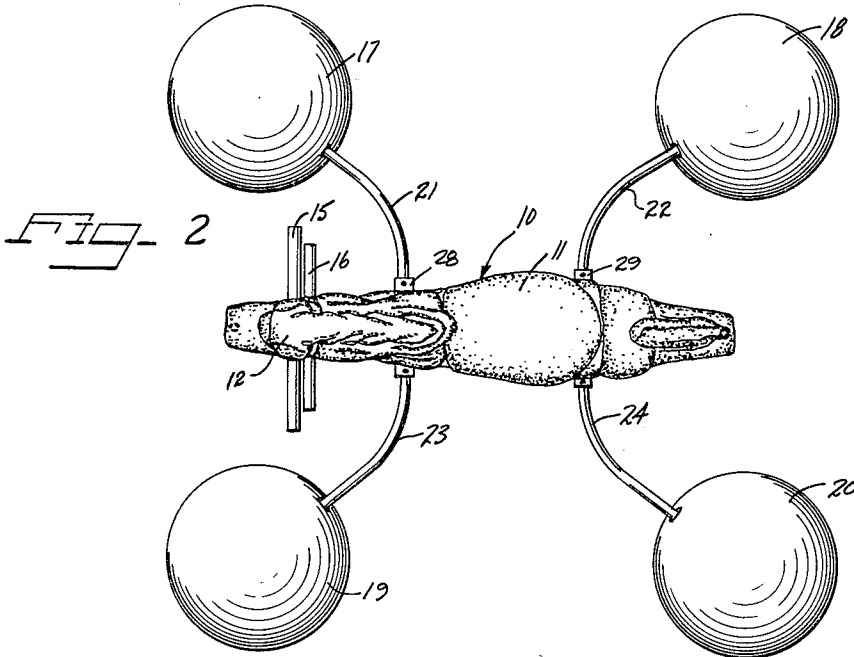
Aug. 22, 1961

C. WILKINS, JR
FLOATING RIDING DEVICE

2,997,299

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2 Sheets-Sheet 1



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Fig. 3

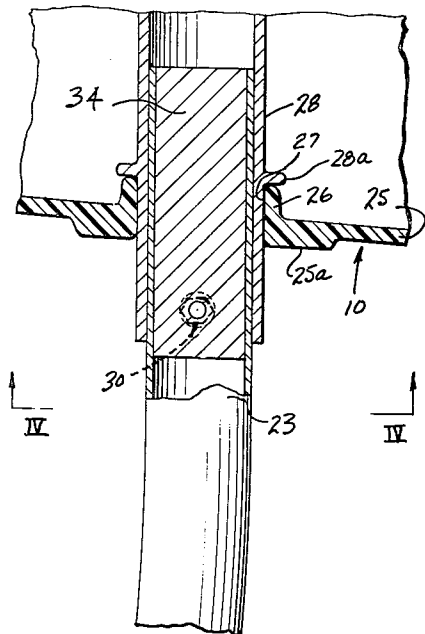


Fig. 4

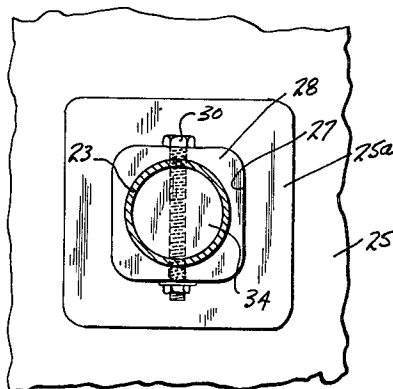


Fig. 5

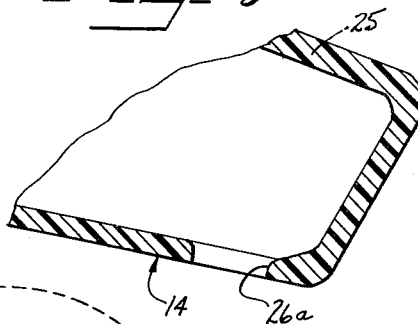
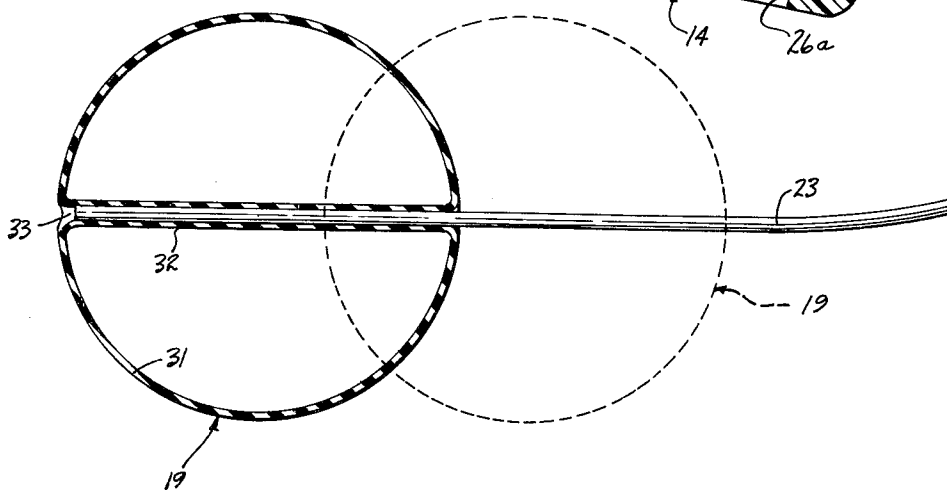


Fig. 6



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2,997,299

FLOATING RIDING DEVICE

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1 Claim. (Cl. 272-1)

The present invention relates to improvements in riding toys and particularly to an improve floating riding toy which is supported to be stable in the water but to afford an improved pitching and rolling movement that is safe, pleasurable and exciting to a child.

The present invention contemplates the provision of a water toy suitable for riding by a child at the beach or in a swimming pool. The body of the toy may be a simulation of an animal such as a horse. The body is provided with a seat, a hand grip means and a footrest and is supported substantially out of the water for the rider to obtain the gaited damped movement in forward and lateral directions or a combination of these directions so that it provides a pleasing and exciting ride and can simulate the galloping of a horse. The buoyant support is obtained by a plurality of radially positioned floats preferably quadrilaterally arranged and secured to outriggers which rigidly position the floats with respect to the body. The floats are adjustable in their rigid relationship to the body and to each other so as to adjust the righting buoyant moment applied to the body and thereby control the restoring force and accommodate riders of different weights and vary the obtainable gaited ride.

An object of the invention is to provide an improved floating toy for use by a child having improved features for the pleasure, excitement and safety of the child.

A further object of the invention is to provide a riding toy from which can be obtained a galloping motion unique in a toy, which is gaited with a damped reaction and wherein the toy is completely stabilized for safety and improved enjoyment.

A still further object of the invention is to provide a unique riding toy for a child wherein a gaited galloping action can be obtained which is adjustable in the motion and which also can be adjusted for children of different weights.

Another object of the invention is to provide a riding toy of improved design which is inexpensive to manufacture and which provides increased enjoyment for children.

Other objects and advantages will become more apparent with the teaching of the principles of the invention in connection with the disclosure of the preferred embodiment thereof in the specification, claim and drawings, in which:

FIGURE 1 is a side elevational view of a floating riding toy embodying the principles of the present invention;

FIGURE 2 is a top plan view of the toy of FIGURE 1;

FIGURE 3 is a fragmentary sectional view taken substantially along line III-III of FIGURE 1;

FIGURE 4 is a sectional view taken substantially along line IV-IV of FIGURE 3;

FIGURE 5 is a fragmentary sectional view taken through a lower body portion of the riding toy illustrating a drain opening; and,

FIGURE 6 is a sectional view taken through one of the floats and illustrating the adjustment feature.

As shown on the drawings:

FIGURES 1 and 2 illustrate the riding toy as having a body 10, shown in the form of a horse. The body has a seat 11 and the horse body has a head 12 through which laterally extends a rod 15 to provide a hand grip. The horse is provided with front and rear legs and feet

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13 and 14 and through the front legs extends a footrest support bar 16.

It will be appreciated by those skilled in the art that the body could take various forms and a horse is desirable inasmuch as the unique gaited galloping action obtainable resembles the motion of a horse and stirs the imagination of a child. It will also be appreciated that the hand grip 15 and footrest 16 may take various other forms and in some instances one of these members may be omitted but their presence is desirable in order that the child may more effectively shift his weight to thereby effect the gaited galloping action of the body 10.

The body is supported on water W by radially disposed floats 17, 18, 19 and 20 which are located so that the seat 11 and the center of gravity of the rider will be substantially in the center of the floats.

Each of the floats is supported on an outrigger 21, 22, 23 and 24 respectively for each of the floats. The outriggers rigidly position the body 10 with respect to the floats and position the floats with respect to each other so that in a preferred form they are quadrilaterally arranged and substantially equidistant from each other. The body is carried above the surface of the water W although it may drop down to the water with load or be submerged several inches. However the arrangement illustrated preferably holds the body and the rider above the water for obtaining the gaited action desired and the center of gravity of the body and rider is above the effective vertical buoyant restoring force caused by the action of the water on each of the floats.

As illustrated in FIGURES 3 and 4, the body of the horse is preferably hollow and formed of a thin shell 25 of a lightweight plastic. A thermoplastic such as a polyvinyl may be employed which is well suited to molding and can be attractively colored. The body is light in weight so that the gaited action obtainable is largely a function of the shifting of the weight of the child and the restoring action of the floats.

The thickness of the shell 25 is increased at 25a surrounding openings 27 in the side of the body for receiving cross bars extending through the body, preferably in the form of connecting tubes 28 and 29. The shell may be formed with a reinforcing flange or bead 26 around the opening 27. The opening is rectangular as is the outer shape of the connecting tubes 28 and 29 so that the tube will not rotate relative to the body. The connecting tube 28 is locked axially to the body such as by flanges 28a against the inner surface of the body and the body is formed in halves which are assembled over the tubes 28. The inner surface of the tubes are cylindrical in shape to receive the cylindrical outer surface of the outriggers. The outriggers such as outrigger strut 23 are also preferably tubular in form and can be readily made from a bent metal pipe curved outwardly and downwardly so as to support the body above the floats. Inasmuch as each of the outriggers 21, 22, 23 and 24 are of substantially identical construction, only the outrigger 23 and its relationship to the connecting tube 28 need be described in detail. A solid plug 34 extends within the strut to help prevent its tearing and collapsing. The outrigger 23 is secured within the connecting tube 28 by a radially extending pin or bolt 30 which extends through radial openings in the connecting tube 28, the plug 34, and the strut 23 and receives a nut to lock the outrigger tube 23 in place. This arrangement rigidly connects each of the floats to the body for support on the surface of the water W.

As illustrated in FIGURE 5, the lower portions of the body such as the leg or foot 14 may be provided with drain openings 26a so that the body can be drained when the toy is removed from the water and to prevent the accumulation of moisture inside of the body.

A feature of the invention is the adjustment of the restoring buoyant forces of the float and the adjustment of the position of the restoring riding forces so as to control the gaited action of the toy and make adjustments accommodating children of different weights. For this purpose, the position of the floats on the outrigger is adjustable. As illustrated in FIGURE 6, the float 19 has an outer spherical shell 31 of rubber or plastic or the like which is hollow and which is integral with a tube 32 of the same material extending through the center and providing a cylindrical opening 33 in which the outrigger 23 is frictionally received. Each of the floats are of the same construction.

With this arrangement the floats are frictionally held in their adjusted position with respect to the outrigger and are shiftable from the solid to the dotted line positions of FIGURE 6 as illustrated.

If the toy is to be ridden by a relative lightweight child the floats are moved inwardly and for children of heavier weights the floats are moved correspondingly outwardly for obtaining the same ride characteristics. In riding the toy, experiments in the position of the floats for children of various weights will show an optimum position for a desirable rolling, swaying and pitching action of the right frequency to obtain the most exciting and pleasant ride. This may be adjusted at will or may be adjusted for each child to obtain a substantially constant ride characteristic. Furthermore for any given child the ride characteristic may be altered by changing the position of the floats. It is to be noted that the floats are rigidly maintained in each adjusted position. With adjustment of the float position the restoring moment arm of the water acting on the float is altered and thus the restoring torque is changed.

It will be noted that in sidewise rolling swaying action as well as in back and forth and pitching action all of the floats have an effect on the restoring force which tends to stabilize the horse in its normal upright position. The restoring buoyant force is damped by the movement of the floats in the water obtaining an action not possible with riding toys heretofore provided such as those which are spring suspended. This will obtain a unique galloping effect enhancing the desirability of the toy.

In operation, the radial distance of each of the floats from the seat will be adjusted in accordance with the

ride desired and/or the weight of the child to ride the toy, and the child will mount the toy in the water W sitting on the seat with his hands gripping the hand grip 15 and his feet on the footrest 16. With shifting movements of the child's body a damped gaited galloping action can be maintained with substantially limitless variations available.

Thus it will be seen that I have provided an improved riding toy which meets the objectives and advantages hereinabove set forth. The device is simple and inexpensive in construction, is safe and reliable and has no moving parts to wear out.

The drawings and specification present a detailed disclosure of the preferred embodiments of the invention, and it is to be understood that the invention is not limited to the specific forms disclosed, but covers all modifications, changes and alternative constructions and methods falling within the scope of the principles taught by the invention.

I claim as my invention:

A floating riding toy having a stabilized rocking movement in a plurality of directions for supporting a rider comprising a body for supporting a rider, a plurality of hollow closed body supporting floats positioned radially outwardly from the body for applying a supporting riding force against rocking tilt of the body from a normal upright position, a plurality of rods secured to the body and extending radially outwardly therefrom through the floats, and tube means extending through each of the floats for maintaining waterproof integrity of each of the closed floats and providing a support for the float on the rod.

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