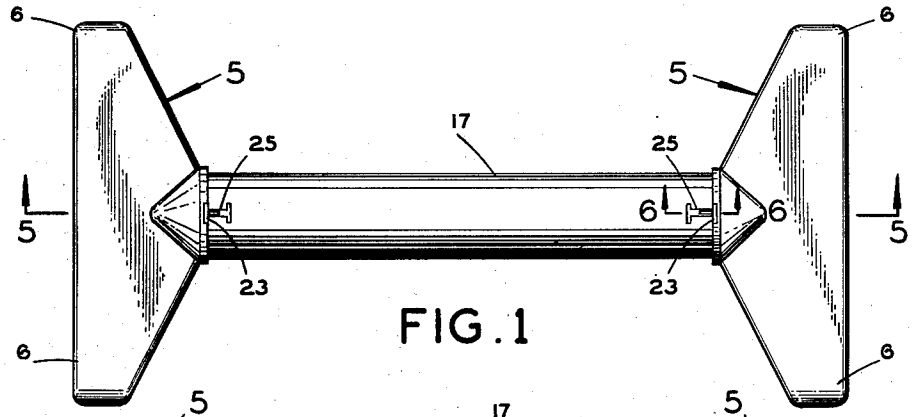
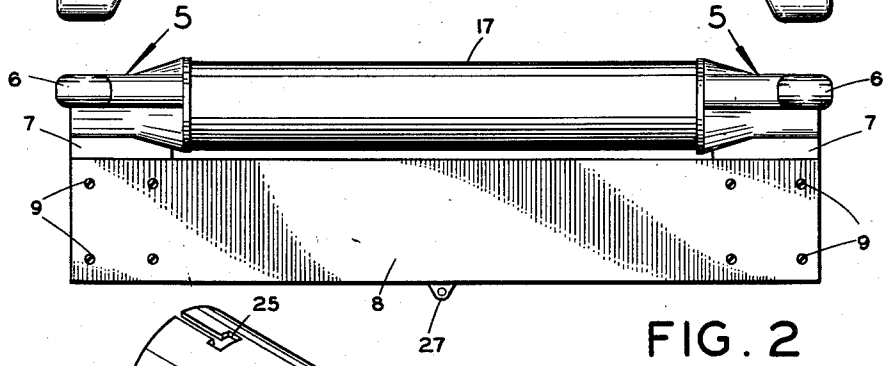
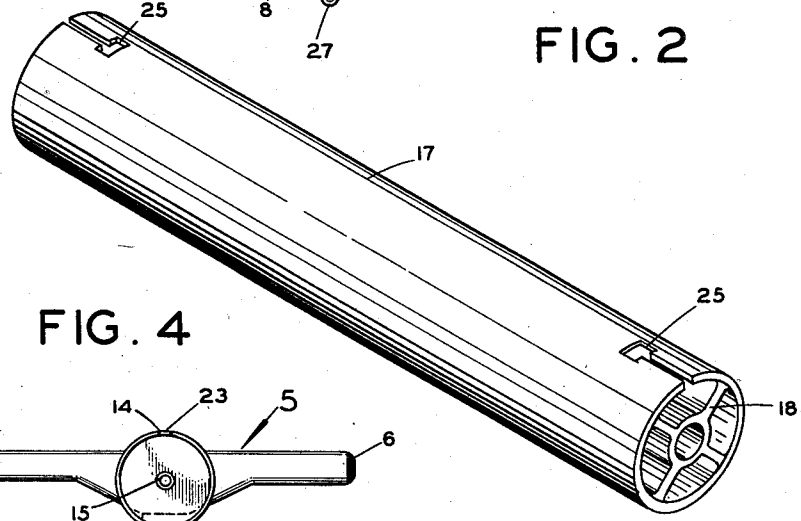
April 5, 1960 D. H. DAVIES 2,931,648

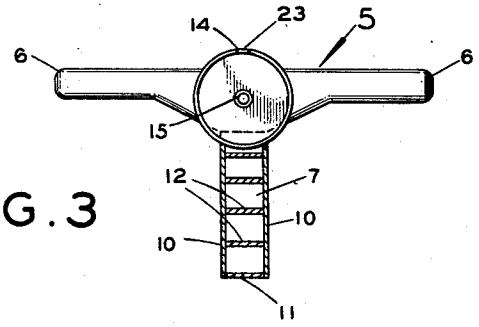
LOG ROLLING OR BIRLING MACHINES

Filed June 18, 1959 2 Sheets-Sheet 1









INVENTOR.
DAVID HECTOR DAVIES
BY
James A. Ryle
ATTORNEY

April 5, 1960 D. H. DAVIES 2,931,648

LOG ROLLING OR BIRLING MACHINES

Filed June 18, 1959 2 Sheets-Sheet 2

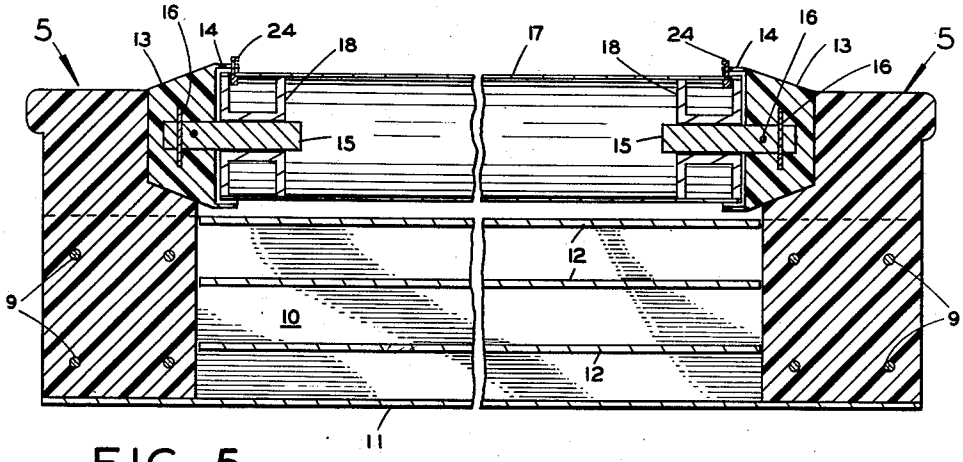


FIG. 5

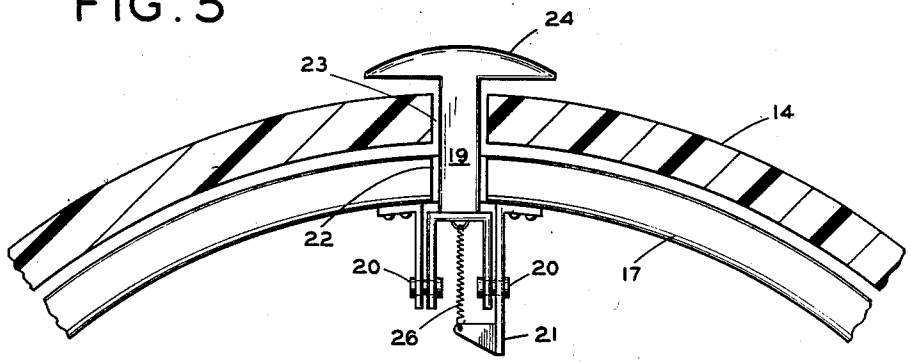


FIG. 7

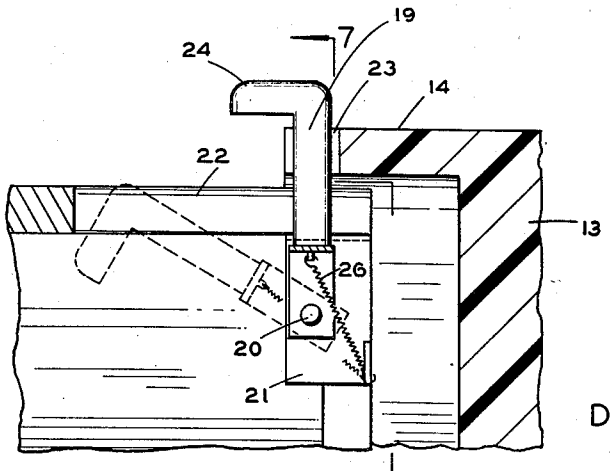


FIG. 6

INVENTOR.
DAVID HECTOR DAVIES
BY
James H. Tyler
ATTORNEY

United States Patent Office 2,931,648 Patented Apr. 5, 1960

2,931,648

LOG ROLLING OR BIRLING MACHINES

David Hector Davies, Coral Gables, Fla.

Application June 18, 1959, Serial No. 821,210

7 Claims. (Cl. 272—1)

This invention relates to an amusement device and has particular reference to a device to be supported in a floating manner upon a body of water.

The invention has particular reference to an amusement device of the type commonly recognized as log rolling or birling, such being a well known water sport originally employing floating logs upon which persons attempt to stand while rolling the log with the feet. This application is a continuation-in-part of my application filed June 25, 1958, bearing Serial No. 744,535, now abandoned and entitled Log Rolling Or Birling Machines.

The invention contemplates a pair of spaced apart floats that are fixedly connected together by a depending keel forming device and with an elongated cylinder being rotatably journaled with respect to each float and whereby persons may climb upon the float from either end, to stand upon the cylinder and, by rolling the cylinder with the feet, attempt to dislodge a competitor who may be standing upon the opposite end or, the device may be obviously used as an amusement device for an individual.

The invention further contemplates a pair of molded polystyrene floats having depending portions that are connected by a common keel device and with each of the floats having a shaft fixedly disposed therein, and with each of the shafts being in axial alignment whereby to rotatably support the cylinder.

The invention further contemplates locking means between the cylinder ends and the floats and whereby the cylinder may be held against rotation to permit persons to step from the float surfaces to the cylinder, after which the locking means is released and the cylinder then becomes freely rotatable.

Novel features of construction and operation of the device will be more clearly apparent during the course of the following description, reference being had to the accompanying drawings, wherein has been illustrated a preferred form of the invention and wherein like characters of reference are employed to denote like parts throughout the several figures.

In the drawings:

Figure 1 is a top plan view of a device constructed in accordance with the invention,

Figure 2 is a side elevation thereof,

Figure 3 is an inner end view of one float, with a rotating cylinder removed,

Figure 4 is a perspective view of the rotating cylinder,

Figure 5 is a vertical longitudinal section, taken on line 5—5 of Figure 1,

Figure 6 is a fragmentary longitudinal section, taken on line 6—6 of Figure 1 and,

Figure 7 is a transverse section taken on line 7—7 of Figure 6.

Referring specifically to the drawings, the numeral 5 designates float devices, that are preferably molded from a suitable buoyant material, such for instance as expanded polystyrene. The float devices embody oppositely extending wing portions 6 and a centrally and vertically

arranged web portion 7. The floats 5 are substantially flat upon their upper surfaces. Fixedly connected to the web portions 7 is a vertically arranged keel 8. The keel at its opposite end is bolted to the web 7, as indicated at 9. The keel embodies a pair of spaced apart side walls 10, a bottom 11 and longitudinally extending reinforcing webs 12, that are connected to the sides 10.

Molded into the floats 5, intermediate their width, are hubs 13 also preferably being formed of a suitable plastic and bonded into the floats 5 as they are formed. Each of the hubs 13 are provided with a cylinder flange 14. The flanges 14 of the hubs 13 are provided with axially arranged metallic shaft sections 15. The shaft sections 15 at one end are molded into the hubs 13 and with the shafts 15 being axially arranged. Reinforcing pins 16 pass through one end of each of the shafts 15 at a right angle to each other and whereby to prevent disengagement of the shaft with respect to the hubs.

Rotatably supported upon the shafts 15, is an elongated cylinder 17. The cylinder 17 is formed of any suitable material calculated to withstand the weight of a person standing thereon and the cylinder may be formed of any suitable light weight metal, such as aluminum, that has a high degree of resistance to corrosion. The surface of the cylinder 17 may be roughened in any desirable manner or, the cylinder may be encased in any suitable form of friction pad and whereby to prevent a person slipping therefrom during the act of stepping upon the cylinder. The cylinder constitutes a roller. The cylinder at its opposite ends is provided with bearing inserts 18, that have journaled engagement with the forward extended ends of the shaft sections 16.

Any suitable means may be provided to lock the cylinder against rotation, during such time as a person attempts to step thereon from the floats 5 and one form of locking means has been illustrated particularly in Figures 6 and 7. Such locking means includes a lever 19 at each end of the cylinder. The lever 19 is pivotally supported at 20, upon a fixed bracket 21 disposed within the opposite ends of the cylinder and between the spokes of the bearings 18. The lever 19 extends upwardly through a slot 22, formed in the end portions of the cylinder and in the locking position, engages a notch 23, formed in the flanges 14. The lever 19 is provided with a relatively wide head portion 24, for convenient operation and whereby to offer no obstacle that would possibly cause injury to a person mounting the device. The slot 22 terminates inwardly in an enlarged opening 25, formed in the cylinder and whereby to receive the head 24, when the lever 19 is swung to the inoperative position, such position disposing the lever and the head, substantially flush with the outer surface of the cylinder 17. The lever 19 is held in either the operative or inoperative position by a spring 26, connected at one end to the lever, while its opposite end is connected to the bracket 21. The spring constitutes a past center holding means for the lever 19.

In the use of the device, with the floats and the keel being assembled, with the cylinder 17 being supported upon the shafts 15, the device is then ready to be placed within the water. When disposed in the water, the floats 5 will float substantially horizontal upon the surface of the water, while the keel 8 functions to maintain the floats evenly supported. The levers 19 are swung upwardly to latching position with the notches 23 after which, the person climbs upon the float from the water and steps upon the cylinder 17. After he has balanced himself upon the cylinder, he releases the latch devices 14, permitting the roller to freely rotate and, as in the well known sport of birling or log rolling, he attempts to maintain his balance upon the cylinder, while it is being rotated with his feet. The latches, formed by the

levers 19 may or may not be employed but, when they are not employed they will lie flush with the surface of the cylinder to prevent injury. One or two persons may mount the device from opposite floats 5 and, each attempting to unbalance the other so that he will be thrown into the water.

It will be apparent from the foregoing that a very novel form of amusement device has been provided, the structure is extremely simple, while the floats may be economically molded from the well known polystyrene foam such being recognized as the material having a high degree of buoyancy. As before stated the hubs 13, also being formed of a similar material to the floats, may be molded into the floats during the manufacture. The device is easily assembled and provides an exceptionally interesting sport device for use in restricted water areas, such as swimming pools, lakes or the like. Any suitable anchor may be connected to an eye 27, carried by the keel intermediate its length and whereby to maintain the device in a relatively fixed position within the water. The device is strong, durable, cheap to manufacture and provides a highly amusing form of article for water sports.

It is to be understood that the invention is not limited to the precise construction shown, but that changes are contemplated as readily fall within the spirit of the invention as shall be determined by the scope of the subjoined claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. An amusement device of the character described for use as a water sport and of the type known as birling or log rolling, the device comprising a pair of spaced apart floats, that are rigidly connected together, an elongated cylinder that extends between the floats and with its opposite ends being journaled in the floats whereby the cylinder will be freely rotatable and latch means whereby to latch the cylinder against rotation during such times as persons are mounting the cylinder from either of the floats.

2. An amusement device of the character described for use as a water sport and known as birling or log rolling, the device embodying a pair of float devices that are formed of buoyant material and with the float devices having each a flat surface upon which persons may climb upon the device, each of the float devices intermediate their lengths being provided with a depending web portion, a keel device that extends between each of the floats to be fixedly connected to the web portions and whereby the floats are maintained in a predetermined spaced relation, each of the floats being provided with stub shafts that project in axial alignment with each other and in opposed relation, an elongated cylinder that extends between the floats and having its opposite ends journaled upon the stub shafts and latch devices carried by the cylinder and that are shiftable to latched engagement with the floats to prevent the cylinder from rotating during such time as a person is stepping thereon.

3. The structure according to claim 2 wherein the floats are provided with lateral wing portions and with the floats being formed of expanded plastics.

4. An amusement device of the character described for support upon the surface of water and to constitute a birling or log rolling game, a pair of spaced apart floats, a depending keel fixedly connecting the floats in their spaced apart relation, the floats being molded from expanded plastics, hubs molded into the floats intermediate their ends and with each of the hubs of the two floats being in an opposed relation, the hubs having circumferential flanges upon their opposed faces, stub shafts molded into the hubs and that project forwardly of the hubs in axial alignment, an elongated cylinder that extends between the floats to engage within the circumferential flanges, bearing members engaged within the opposite ends of the cylinder and that are rotatably supported upon the stub shafts and whereby the cylinder will be freely rotatable under the influence of a person standing thereon, latch devices carried at each end of the cylinder and that are disposed in flush arrangement with the surface of the cylinder in their inactive positions, the latches being shifted upwardly through openings formed in the cylinder to engage a notch formed in each of the flanges and a connecting eye carried intermediate the length of the keel and whereby to attach an anchoring device.

5. The structure according to claim 4 wherein the hubs are also formed of expanded plastics, the said keel comprising side plates that are spaced apart by connecting longitudinally extending webs, the said floats being provided with depending integral web portions intermediate their length and with the plates being bolted to the webs, the said latch devices including latch levers that are pivotally supported at their lower ends in bracket devices mounted within the ends of the cylinder, the said cylinder being cut away to permit the swinging movement of the latch to flush relation with the outer surface of the cylinder, the said latch arms being shiftable upwardly to engage a notch formed in the hubs and whereby to maintain the cylinder against rotation during the time a person is stepping from the float to the cylinder and spring tension means of the past center type that serves to maintain the arm in either an operative or inoperative position against accidental movement.

6. The structure according to claim 4 wherein the surface of the cylinder is roughened to prevent the slipping of the feet of the user therefrom.

7. The structure according to claim 4 wherein the cylinder is provided with a friction sleeve for its full length.

References Cited in the file of this patent

UNITED STATES PATENTS

1,761,058	Trenholm	June 3, 1930
2,175,197	Kent	Oct. 10, 1939